

Bridge Load Rating

Prepared for

Maine Department of Transportation

MADAWASKA, MAINE, USA & EDMUNDSTON, NEW BRUNSWICK, CANADA

MADAWASKA INTERNATIONAL BRIDGE

Bridge No. 2399

BRIDGE STREET

OVER

ST JOHN RIVER & CANADIAN NATIONAL RAILROAD

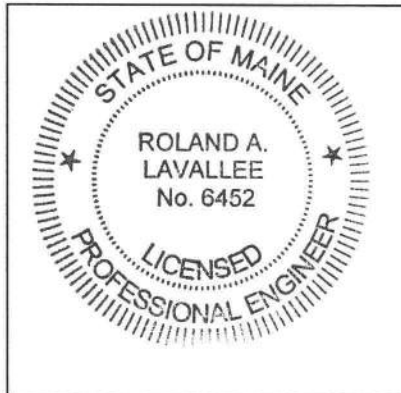
Date of Inspection: 07/27/2017

Date of Rating: 11/9/2017

Prepared By: Shane Zeller, EIT

Checked By: James Anderson, PE

HNTB Corporation



Roland A. Lavallee 11/7/17
Roland A. Lavallee P.E., PLS Date

Vice President, Director of Operations

Bridge No: 2399
 Town/City: Madawaska
 Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

Owner: State Highway Agency
 Maintainer: State Highway Agency
 Year Built 1921
 Year(s) Rebuilt/Rehab: 1960, 1980, 2001

SUMMARY OF BRIDGE RATING

VEHICLE TYPE		RF ¹	RT (TONS)	POSTING LOAD (TONS)
HL-93	INVENTORY	0.38	13.68	
	OPERATING	0.50	18.00	
HL-93 modified	INVENTORY	N/A	N/A	
	OPERATING	N/A	N/A	
CONFIGURATION 1		0.65	32.50	25.00
CONFIGURATION 2		0.55	25.85	16.79
CONFIGURATION 3		0.58	25.52	17.60
CONFIGURATION 4		0.60	26.40	18.86
CONFIGURATION 5		0.62	27.28	20.11
CONFIGURATION 6		0.47	17.84	9.22
CONFIGURATION 7		0.59	17.41	12.22
CONFIGURATION 8		0.92	17.20	16.56
CL-625-ONT INVENTORY		0.43	30.21	5.48
CL-625-ONT OPERATING		0.52	36.53	5.88

1 - Ratings listed reflect the overall condition of the bridge. Isolated areas of critical deterioration result in lower bridge load ratings as noted in the following tables.

Group 1 Posting Analysis (Configuration 1)

Governing Posting: 25.00
 Governing Load Model: CONFIGURATION 1

Group 2 Posting Analysis (Configurations 2 - 5)

Governing Posting: 16.79
 Governing Load Model: CONFIGURATION 2

Group 3 Posting Analysis (Configurations 6 - 8)

Governing Posting: 5.48
 Governing Load Model: N/A

Please check all the boxes that apply:

LRFR Evaluation Factors:

Live Load Distribution Factor: varies
 Impact Factor (LRFD): 0.33
 Impact Factor (CHBDM): 0.25
 Governing Condition Factor, ϕ_c : 0.9
 System Factor, ϕ_s : 0.9
 ADTT (one-way): 183

- ☐ Bridge load rating is governed by substructure rating
- ☐ Connections control the load rating
- ☐ Exterior girder controls load rating
- ☐ As-built load rating
- ☒ As-inspected load rating
- ☐ One Lane Loaded
- ☐ Advanced Analysis Used
- ☒ Actual Measurements Taken
- ☐ Finite Fatigue Life _____ years

BREAKDOWN OF BRIDGE RATING (HL-93 & MAINEDOT LEGALS)

Town/City: Madawaska
 Bridge No: 2399

Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

LOAD RATING POINTS OF INTEREST

<u>Bridge Component</u>	HL-93		HL-93 Modified		MaineDOT Truck Configurations							
	Inv 72.0 kip	Oper 72.0 kip	Inv 90.0 kip	Oper 90.0 kip	1 100.0 kip	2 94.0 kip	3 88.0 kip	4 88.0 kip	5 88.0 kip	6 75.9 kip	7 59.0 kip	8 37.4 kip
Interior Stringer Critical Section Loss Positive Moment - Midspan	0.12*	0.16*			0.22*	0.22*	0.22*	0.24*	0.21*	0.17*	0.20*	0.28*
Interior Stringer Critical Section Loss Shear - At Floorbeam Connection	0.00*	0.00*			0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
Interior Stringer Severe Section Loss Positive Moment - At End	0.44	0.57			0.73	0.73	0.73	0.87	0.75	0.57	0.72	1.07
Interior Stringer Severe Section Loss Shear - At Floorbeam Connection	0.68	0.89			1.15	1.11	1.12	1.12	1.08	0.87	1.01	1.49
Floorbeam Severe Section Loss Positive Moment - Midspan	0.38	0.50			0.65	0.55	0.58	0.60	0.62	0.47	0.59	0.92
Floorbeam Severe Section Loss Shear - At Stringer 2 Connection	0.82	1.07			1.34	1.14	1.19	1.24	1.28	0.98	1.21	1.90
Lower Chord L0 - L2 Axial Tension	1.13	1.47			2.08	2.25	2.33	2.30	2.33	2.58	3.28	5.18
Lower Chord L2 - L4 Axial Tension	0.89	1.16			1.66	1.65	1.68	1.72	1.71	1.76	2.24	3.51
Lower Chord L4 - L6 Axial Tension	0.89	1.15			1.61	1.66	1.72	1.73	1.73	1.87	2.37	3.72
Upper Chord U1 - U2 Axial Compression	1.27	1.65			2.35	2.49	2.62	2.59	2.62	2.89	3.67	5.80
Upper Chord U2 - U4 Axial Compression	1.14	1.48			2.11	2.21	2.32	2.32	2.33	2.58	3.29	5.18
Upper Chord U4 - U6 Axial Compression	1.15	1.49			2.16	2.24	2.33	2.34	2.35	2.60	3.30	5.24

* These rating values represent the as-inspected (2017) conditions for specific locations primarily in Spans 1 and 2. The floor system of the bridge consists of an open steel grid with tightly spaced stringers and likely has the potential to redistribute a portion of the load from these members to the adjacent members. However, based on the seriousness of the deterioration found during the inspection and the severity of the resulting ratings, a monitoring plan should be developed and implemented immediately. Repairs should be made to the stringers with critical section loss on a high-priority basis.

BREAKDOWN OF BRIDGE RATING (HL-93 & MAINEDOT LEGALS)

Town/City: Madawaska
 Bridge No: 2399

Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

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<u>Bridge Component</u>	HL-93		HL-93 Modified		MaineDOT Truck Configurations							
	Inv 72.0 kip	Oper 72.0 kip	Inv 90.0 kip	Oper 90.0 kip	1 100.0 kip	2 94.0 kip	3 88.0 kip	4 88.0 kip	5 88.0 kip	6 75.9 kip	7 59.0 kip	8 37.4 kip
Verticals U1 - L1 Axial Tension	0.90	1.17			1.47	1.26	1.32	1.37	1.42	1.07	1.33	2.06
Verticals U2 - L2 Axial Compression	2.27	2.95			3.74	4.08	4.17	4.09	4.17	4.53	5.74	9.03
Verticals M3 - L3 Axial Tension	0.88	1.15			1.45	1.23	1.29	1.34	1.38	1.06	1.31	2.05
Verticals U4 - L4 Axial Tension	1.78	2.31			2.69	2.80	2.86	2.84	2.87	3.01	3.77	5.90
Verticals M5 - L5 Axial Tension	0.88	1.14			1.44	1.23	1.28	1.34	1.37	1.05	1.30	2.04
Diagonal L0 - U1 Axial Compression	1.53	1.98			2.80	3.03	3.14	3.10	3.14	3.47	4.41	6.96
Diagonal U1 - L2 Axial Tension	1.11	1.44			1.94	2.10	2.18	2.14	2.17	2.39	3.04	4.78
Diagonal L2 - M3 Axial Compression	1.05	1.36			1.72	1.46	1.52	1.59	1.63	1.25	1.55	2.42
Diagonal M3 - U2 Axial Tension	1.08	1.41			1.82	1.96	2.03	1.99	2.03	2.20	2.79	4.40
Diagonal M3 - L4 Axial Tension	1.20	1.56			1.96	2.13	2.19	2.15	2.19	2.37	3.01	4.74
Diagonal L4 - M5 Axial Compression	1.16	1.51			1.91	1.62	1.69	1.77	1.81	1.39	1.72	2.69
Diagonal M5 - U4 Axial Tension	1.23	1.59			1.95	2.07	2.15	2.11	2.15	2.29	2.89	4.54
Diagonal M5 - L6 Axial Tension	1.34	1.73			2.06	2.26	2.29	2.22	2.28	2.41	3.05	4.78

* These rating values represent the as-inspected (2017) conditions for specific locations primarily in Spans 1 and 2. The floor system of the bridge consists of an open steel grid with tightly spaced stringers and likely has the potential to redistribute a portion of the load from these members to the adjacent members. However, based on the seriousness of the deterioration found during the inspection and the severity of the resulting ratings, a monitoring plan should be developed and implemented immediately. Repairs should be made to the stringers with critical section loss on a high-priority basis.

BREAKDOWN OF BRIDGE RATING (HL-93 & MAINEDOT LEGALS)

Town/City: Madawaska
 Bridge No: 2399

Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

LOAD RATING POINTS OF INTEREST

<u>Bridge Component</u>	HL-93		HL-93 Modified		MaineDOT Truck Configurations							
	Inv 72.0 kip	Oper 72.0 kip	Inv 90.0 kip	Oper 90.0 kip	1 100.0 kip	2 94.0 kip	3 88.0 kip	4 88.0 kip	5 88.0 kip	6 75.9 kip	7 59.0 kip	8 37.4 kip
Gusset Plate L0 Bottom Chord	1.04	1.35										
Gusset Plate L1 Bottom Chord	1.62	2.10										
Gusset Plate L2 Bottom Chord	1.11	1.44										
Gusset Plate L3 Bottom Chord	1.59	2.07										
Gusset Plate L4 Bottom Chord	1.22	1.59										
Gusset Plate L5 Bottom Chord	1.59	2.06										
Gusset Plate L6 Bottom Chord	1.36	1.77										
Gusset Plate M3 U3 - L3	1.06	1.37										
Gusset Plate M5 U5 - L5	1.06	1.37										
Gusset Plate U1 Upper Chord	1.08	1.40										
Gusset Plate U2 Upper Chord	1.33	1.73										
Gusset Plate U4 Upper Chord	1.26	1.63										
CONTROLLING RATING FACTORS	0.38	0.50			0.65	0.55	0.58	0.60	0.62	0.47	0.59	0.92

* These rating values represent the as-inspected (2017) conditions for specific locations primarily in Spans 1 and 2. The floor system of the bridge consists of an open steel grid with tightly spaced stringers and likely has the potential to redistribute a portion of the load from these members to the adjacent members. However, based on the seriousness of the deterioration found during the inspection and the severity of the resulting ratings, a monitoring plan should be developed and implemented immediately. Repairs should be made to the stringers with critical section loss on a high-priority basis.

BREAKDOWN OF BRIDGE RATING (Canadian CL-625-ONT)

Town/City: Madawaska
 Bridge No: 2399

Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

LOAD RATING POINTS OF INTEREST

<u>Bridge Component</u>	CL-625-ONT	
	Inv 141 kip	Oper 141 kip
Interior Stringer Critical Section Loss Positive Moment - Midspan	0.14*	0.17*
Interior Stringer Critical Section Loss Shear - At Floorbeam Connection	0.00*	0.00*
Interior Stringer Severe Section Loss Positive Moment - At End	0.49	0.60
Interior Stringer Severe Section Loss Shear - At Floorbeam Connection	0.73	0.89
Floorbeam Severe Section Loss Positive Moment - Midspan	0.43	0.52
Floorbeam Severe Section Loss Shear - At Stringer 2 Connection	0.90	1.08
Lower Chord L0 - L2 Axial Tension	1.32	1.60
Lower Chord L2 - L4 Axial Tension	1.08	1.31
Lower Chord L4 - L6 Axial Tension	1.04	1.26
Upper Chord U1 - U2 Axial Compression	1.46	1.77
Upper Chord U2 - U4 Axial Compression	1.31	1.58
Upper Chord U4 - U6 Axial Compression	1.33	1.61

* These rating values represent the as-inspected (2017) conditions for specific locations primarily in Spans 1 and 2. The floor system of the bridge consists of an open steel grid with tightly spaced stringers and likely has the potential to redistribute a portion of the load from these members to the adjacent members. However, based on the seriousness of the deterioration found during the inspection and the severity of the resulting ratings, a monitoring plan should be developed and implemented immediately. Repairs should be made to the stringers with critical section loss on a high-priority basis.

BREAKDOWN OF BRIDGE RATING (Canadian CL-625-ONT)

Town/City: Madawaska
 Bridge No: 2399

Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

LOAD RATING POINTS OF INTEREST

<u>Bridge Component</u>	CL-625-ONT	
	Inv 141 kip	Oper 141 kip
Verticals U1 - L1 Axial Tension	0.98	1.18
Verticals U2 - L2 Axial Compression	2.69	3.24
Verticals M3 - L3 Axial Tension	0.97	1.17
Verticals U4 - L4 Axial Tension	1.90	2.29
Verticals M5 - L5 Axial Tension	0.96	1.16
Diagonal L0 - U1 Axial Compression	1.78	2.15
Diagonal U1 - L2 Axial Tension	1.29	1.56
Diagonal L2 - M3 Axial Compression	1.14	1.38
Diagonal M3 - U2 Axial Tension	1.26	1.53
Diagonal M3 - L4 Axial Tension	1.41	1.71
Diagonal L4 - M5 Axial Compression	1.27	1.53
Diagonal M5 - U4 Axial Tension	1.36	1.64
Diagonal M5 - L6 Axial Tension	1.52	1.84

* These rating values represent the as-inspected (2017) conditions for specific locations primarily in Spans 1 and 2. The floor system of the bridge consists of an open steel grid with tightly spaced stringers and likely has the potential to redistribute a portion of the load from these members to the adjacent members. However, based on the seriousness of the deterioration found during the inspection and the severity of the resulting ratings, a monitoring plan should be developed and implemented immediately. Repairs should be made to the stringers with critical section loss on a high-priority basis.

BREAKDOWN OF BRIDGE RATING (Canadian CL-625-ONT)

Town/City: Madawaska
 Bridge No: 2399

Route Carried: Bridge Street
 Crosses: St. John River & Canadian National Rail

LOAD RATING POINTS OF INTEREST

<u>Bridge Component</u>	CL-625-ONT	
	Inv 141 kip	Oper 141 kip
Gusset Plate L0 Bottom Chord	1.21	1.46
Gusset Plate L1 Bottom Chord	1.76	2.13
Gusset Plate L2 Bottom Chord	1.21	1.47
Gusset Plate L3 Bottom Chord	1.74	2.10
Gusset Plate L4 Bottom Chord	1.44	1.74
Gusset Plate L5 Bottom Chord	1.73	2.09
Gusset Plate L6 Bottom Chord	1.55	1.87
Gusset Plate M3 U3 - L3	1.16	1.40
Gusset Plate M5 U5 - L5	1.15	1.39
Gusset Plate U1 Upper Chord	1.17	1.42
Gusset Plate U2 Upper Chord	1.55	1.87
Gusset Plate U4 Upper Chord	1.39	1.68
CONTROLLING CL-625-ONT RATING FACTORS	0.43	0.52

* These rating values represent the as-inspected (2017) conditions for specific locations primarily in Spans 1 and 2. The floor system of the bridge consists of an open steel grid with tightly spaced stringers and likely has the potential to redistribute a portion of the load from these members to the adjacent members. However, based on the seriousness of the deterioration found during the inspection and the severity of the resulting ratings, a monitoring plan should be developed and implemented immediately. Repairs should be made to the stringers with critical section loss on a high-priority basis.

Madawaska International Bridge Rating

GENERAL DESCRIPTION OF SECTION LOSSES AND LOAD RATING RESULTS:

Truss and Gusset Plates:

The trusses and gusset plates are rated by adjusting the capacity condition factor based on deterioration observed during the 2017 inspection.

Floorbeams Conditions:

The floorbeams are rated based on section losses measured during the 2017 inspection. Four conditions are evaluated with the controlling rating results being reported for each vehicle. The conditions considered are: two different severe conditions with losses to the web and flanges; a section with moderate losses to the web and flanges; and a section without any losses.

For critical floorbeam locations, see the framing sketches included herein. In each span, approximately 10% of the floorbeams exhibit severe section loss and approximately 10%-20% of the floorbeams exhibit moderate section loss.

Stringer Conditions:

The stringers are rated based on section losses measured during the 2017 inspection. Four conditions are evaluated with the controlling rating results being reported for each vehicle. The conditions considered are: critical section losses to both the webs and flanges; severe section losses to the webs and flanges; moderate section losses to webs and flanges; and minor section losses. For a description of the section losses and application of the section losses within the analysis, see the calculation cover page of the stringer rating section. The critical and severe section losses are limited to Spans 1 and 2.

For critical stringer rating locations, see the framing sketch.

Span 1 (Canadian Side):

- One stringer exhibits a corrosion crack in the web at its end, which results in a shear load rating of 0.0.
- Approximately 50% of the stringers exhibit critical section loss along most of their length which results in a moment load rating of 0.12 at midspan.
- Approximately 50% of the stringers exhibit severe section loss at their ends which results in a shear load rating of 0.68 and a moment load rating of 0.44.
- Approximately 50% of the stringers exhibit moderate section loss at their ends which results in a shear load rating of 0.77.
- Approximately 50% of the stringers exhibit moderate section loss along most of their length which results in a moment load rating of 0.61.

Madawaska International Bridge Rating

Span 2 (Canadian Side):

- This span contains no critical section loss at the ends (high shear zone).
- Approximately 20% of the stringers exhibit critical section loss along most of their length which results in a moment load rating of 0.12 at midspan.
- Approximately 20% of the stringers exhibit severe section loss at their ends which results in a shear load rating of 0.68 and a moment load rating of 0.44.
- Approximately 80% of the stringers exhibit moderate section loss at their ends which results in a shear load rating of 0.77.
- Approximately 80% of the stringers exhibit moderate section loss along most of their length which results in a moment rating of 0.61.

Spans 3 and 4 (U.S. Side):

- All stringers have load ratings based on minor section losses to full section remaining.

HNTB 2017 and PB 2012 Floorbeam and Stringer Load Rating Comparison:

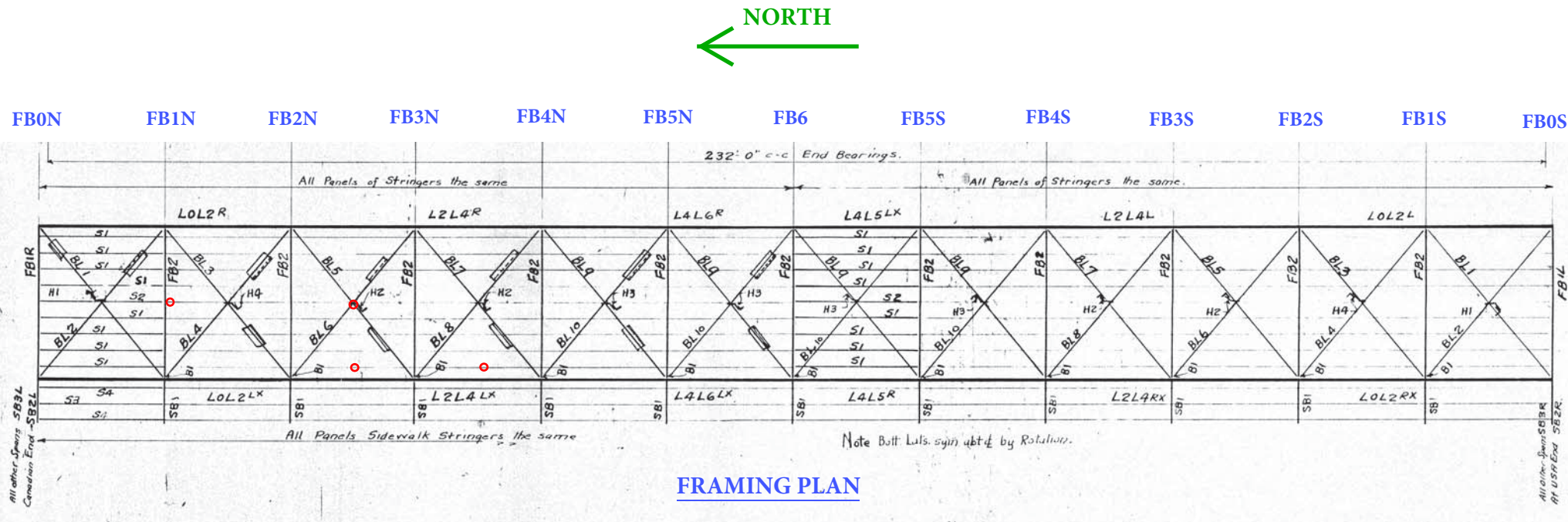
HL-93 Inventory Rating	HNTB 2017	PB 2012
Floorbeam Flexure	0.38	0.65
Floorbeam Shear	0.82	1.19
Stringer Flexure	0.44 (0.12*)	0.83
Stringer Shear	0.68 (0.00*)	1.40

*Critical Locations

SPAN 1 (CANADIAN SIDE) - CRITICAL LOAD RATING LOCATIONS

HL-93 Inventory

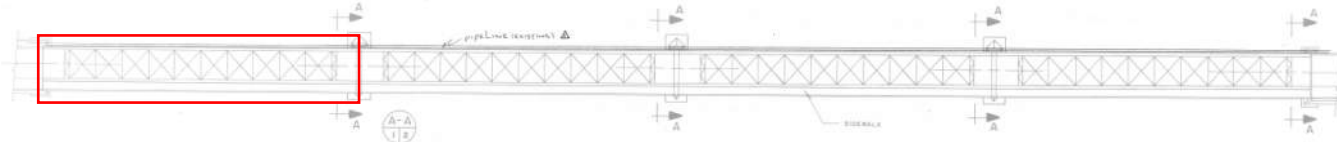
A visual inspection of all superstructure members determined that approximately 50% of the stringers in Span 1 and 20% of the stringers in Span 2 exhibit this critical condition and corresponding low load rating value. The four locations shown in the sketch below are just a sample of the critical locations that were field measured during the 2017 visual and hands-on inspection. Due to the extent of the measured section loss, these locations were selected to be load rated as part of the 2017 load rating.



Legend:

- Location of physical measurements. Measurements indicate critical section losses which are prevalent in 50% of the stringers in Span 1 and 20% of the stringers in Span 2.

SPAN 1

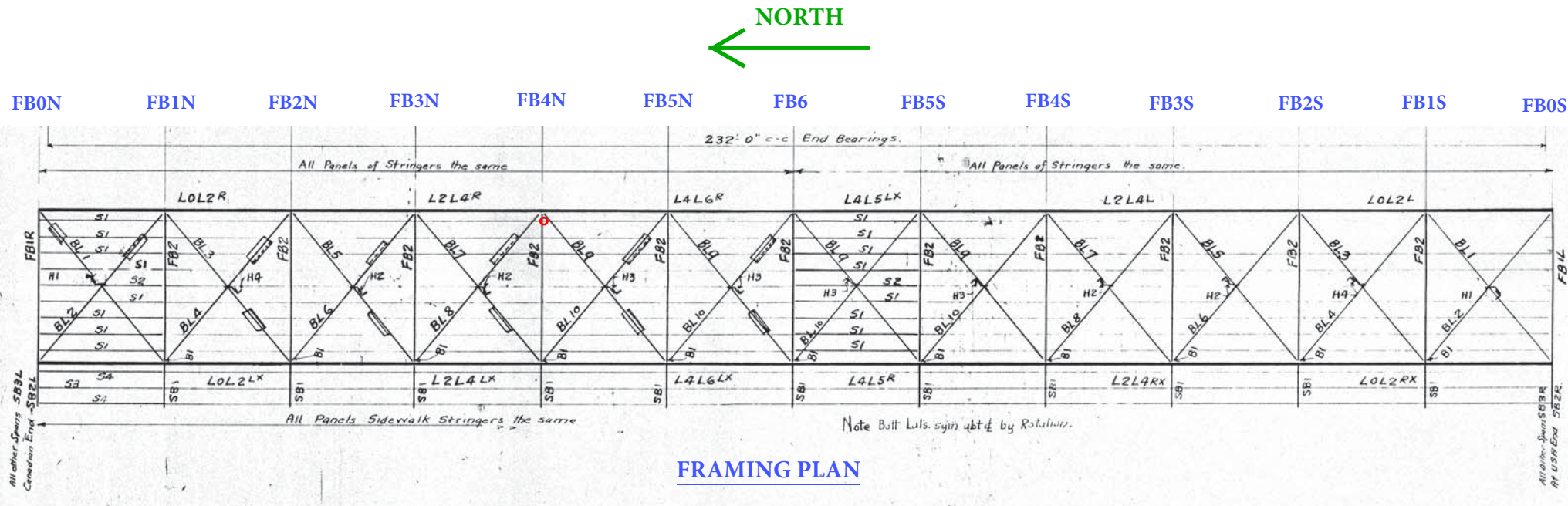


KEY PLAN

SPAN 2 (CANADIAN SIDE) - CRITICAL LOAD RATING LOCATIONS

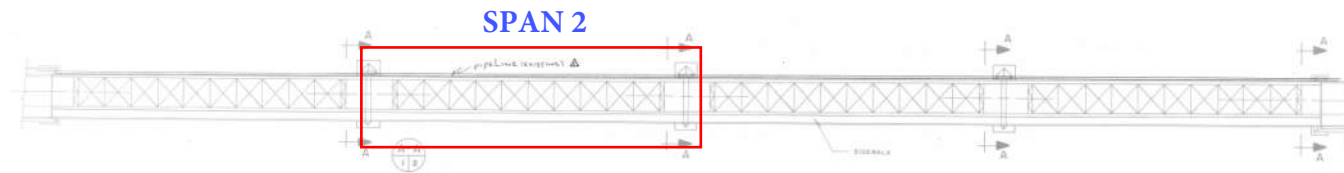
HL-93 Inventory

A visual inspection of all superstructure members determined that approximately 10% of the floorbeams in all spans exhibit this severe condition and corresponding low load rating value. The location shown in the sketch below is just a sample of the a severe location that was field measured during the 2017 visual and hands-on inspection. Due to the extent of the measured section loss, this location was selected to be load rated as part of the 2017 load rating.



Legend:

- Location of physical measurements. Measurements indicate severe section losses which are prevalent in 10% of the floorbeams in all spans.



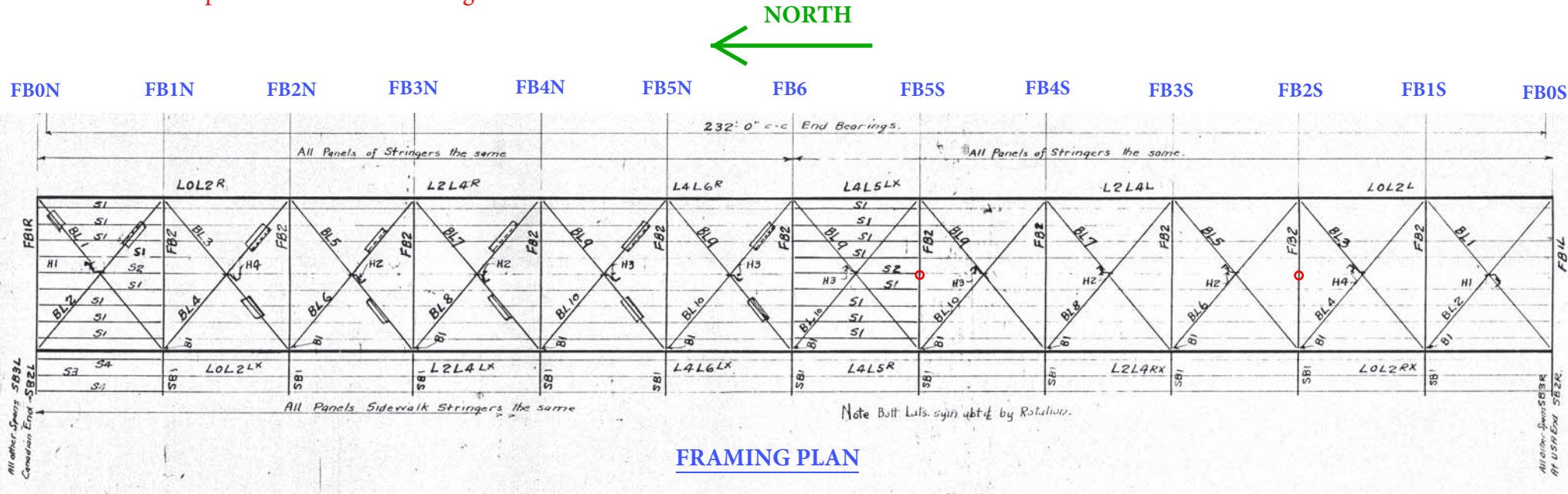
SPAN 3 (U.S. SIDE) - CRITICAL LOAD RATING LOCATIONS

HL-93 Inventory - No locations identified

SPAN 4 (U.S. SIDE) - CRITICAL LOAD RATING LOCATIONS

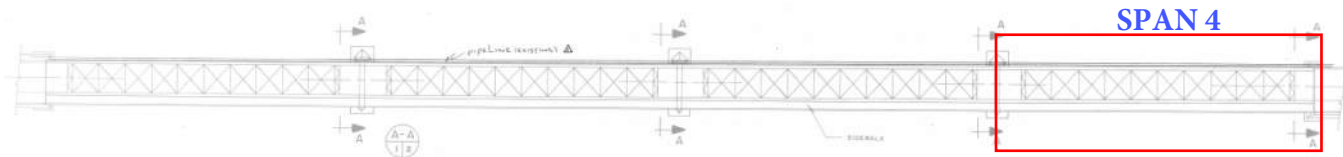
HL-93 Inventory

A visual inspection of all superstructure members determined that approximately 10% of the floorbeams in all spans exhibit this severe condition and corresponding low load rating value. The two locations shown in the sketch below are just a sample of the severe locations that were field measured during the 2017 visual and hands-on inspection. Due to the extent of the measured section loss, these locations were selected to be load rated as part of the 2017 load rating.



Legend:

Location of physical measurements. Measurements indicate severe section losses which are prevalent in 10% of the floorbeams in all spans.



DESCRIPTION OF BRIDGE

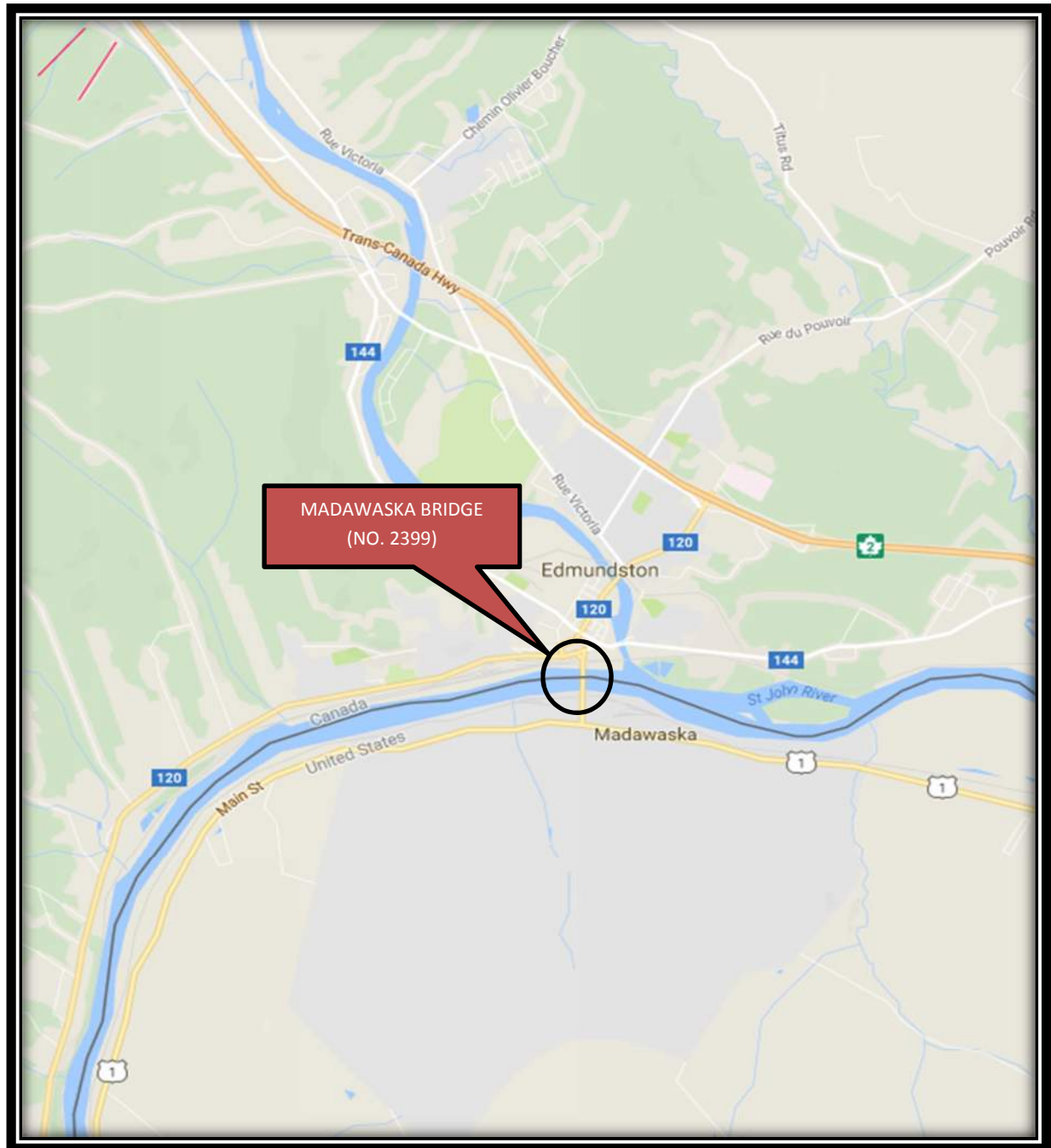
Bridge Number:	2399
Owner:	STATE HIGHWAY AGENCY
Maintained By:	STATE HIGHWAY AGENCY
Location:	MADAWASKA
Route Carried:	BRIDGE STREET
Feature Intersected:	ST. JOHN RIVER & CANADIAN NATIONAL RAIL
Latest NBI Inspection Date:	07/27/2017
Field Verification Date:	N/A
Date of Construction:	1921
Bridge Type:	RIVETED STEEL PARKER THROUGH TRUSS WITH ROLLED STEEL FLOORBEAMS AND ROLLED STEEL STRINGERS
Material Properties:	STRUCTURAL STEEL: $f_y = 30,000$ psi (based on year built, 1921)
Original Design Loading:	H20
Date(s) of Rebuild/Rehab :	1960, 1980, 2001
Description of Rebuild/Rehab :	VARIOUS REPAIRS INCLUDING DECK REPLACEMENT, AND SOME STRINGER REPLACEMENT
Posting:	OPEN, NO RESTRICTIONS
Superstructure:	RIVETED STEEL PARKER THROUGH TRUSS
Substructure:	CAST-IN-PLACE REINFORCED CONCRETE ABUTMENTS AND CAST-IN-PLACE REINFORCED CONCRETE PIERS
Bearings:	ROLLER NEST EXPANSION BEARINGS AND STEEL LAMINATED ELASTOMERIC BEARINGS
Bridge Spans:	SPANS 1 - 4 (EACH) = 232'-0" (c. - c. brgs.)
Bridge Skew:	0°0'0"
Bridge Width:	32'-2 1/2" OUT-TO-OUT
Roadway Width:	20'-8" CURB-TO-CURB
Roadway Surface:	OPEN GRID DECK
Curbs:	STEEL CURBS
Sidewalk/Walkway/Median:	6'-0" CONCRETE SIDEWALK 4 INSULATED PIPES ADDED IN 1980 TO CARRY PULP- RELATED SLURRY FROM PAPER PLANT
Utilities:	
Bridge Railing:	STEEL BRIDGE RAILINGS
Approach Railing:	W-SHAPED GUIDERAIL & CONCRETE BARRIER
Wearing Surface Condition:	N/A
Bridge Railing Condition:	6 SATISFACTORY
Deck Condition:	4 POOR
Superstructure Condition:	4 POOR
Bearing Condition:	3 SERIOUS
Abutment Condition:	5 SATISFACTORY
Pier Condition:	5 SATISFACTORY

Table of Contents

Summary of Bridge Rating	1
Description of Bridge	13
Table of Contents	14
Location Map	16
Load Rating Criteria and Assumptions	17
Truss Load Rating Analysis	24
Truss Calculation Cover	25
Truss Rating Summary	27
BAR7 Input Information	31
BAR7 Output	39
Truss Rating Calculations	91
Gusset Plate Load Rating Analysis	135
Gusset Calculation Cover	136
Gusset Rating Summary	138
Gusset Rating Calculations	145
Floorbeam Load Rating Analysis	188
Floorbeam Calculation Cover	189
Floorbeam Rating Summary	191
Live Load Forces	196
Floorbeam Average Section Properties	200
IES ShapeBuilder Output	203
Inspection Report Sketches	208
Member Capacities	211
STAAD Output	240
Floorbeam Rating	332
Stringer Load Rating Analysis	338
Stringer Calculation Cover	339
Stringer Rating Summary	341
Stringer STLRFD Input	347
Section Loss Sketches	363
Critical Section Loss Ratings	369
Severe Section Loss Ratings	1303
Moderate Section Loss Ratings	2103
Minor Section Loss Ratings	2953

Bridge Photographs.....	3692
Highway Bridge Inspection Report	3714
Appendix A – Bridge Drawings	
Appendix B – Parsons Brinckerhoff 2012 Load Rating	

LOCATION MAP



**Madawaska Bridge carries Bridge Street over St. John River & Canadian National Rail
(Madawaska, ME)**

Load Rating Criteria and Assumptions

As part of the 2017 bridge inspection performed by HNTB, HNTB was requested to update the 2012 load ratings performed by PARSONS BRINKERHOFF (PB). The level of effort requested for the updated ratings included revisions to the existing ratings by reusing as much available information as possible and incorporating current member conditions. In addition to accounting for current conditions, ratings for the Canadian design vehicle, CL-625-ONT, were developed.

Updating the ratings for current condition involved reusing the existing HL-93 live load and dead load effects for the elements being evaluated. For the stringers and floorbeams, the member capacities were updated according to section losses noted in the 2017 inspection. For truss members and gusset plates, the member capacities were taken from the 2012 load ratings and only adjusted based on changes to condition factors from the AASHTO MBE.

Ratings for the Canadian CL-625-ONT are based on the AASHTO methodology, but incorporated the live load factors according to the Canadian Highway Bridge Design Code (CHBDC).

The following information was obtained from As-Built bridge plans and the Highway Bridge Inspection Report. All the information listed below was utilized to develop the LRFR bridge load rating presented herein.

Project Location:

The Madawaska Bridge connects Madawaska, Maine, USA and Edmundston, New Brunswick, Canada, carrying Bridge Street over the St. John River and Canadian National Rail.

Bridge Description:

The Madawaska Bridge is a 938'-6" long (c - c brgs) 4-span structure built in 1921. All truss spans are identical spans of 232'-0" (c - c brgs) with three 3'-6" spaces between bearing lines on the piers. The bridge was rehabilitated in 1960, 1980, and 2001, which included deck replacement and some stringer replacement. The superstructure is a riveted steel Parker through truss with a stringer and floorbeam system supporting a steel grid deck. The stringers are spaced 2'-7" on center with a roadway width of 20'-8". Both abutments have a 0 degree skew.

Bridge Inspection Report & Site Visit Information:

The following information was obtained from the Highway Bridge Inspection Report which reflects the most recent MaineDOT bridge inspection findings.

Year Built:	1921
Year Reconstructed:	1960, 1980, 2001
ADT (2014):	3,684
Truck ADT:	9%
Condition Ratings:	Deck 4 (Poor) Superstructure 4 (Poor) Substructure 5 (Fair)

Condition assessment was based off of the 2017 Inspection Report. All As-Built plans are assumed to be correct and the load rating was performed based on the information provided.

Madawaska Bridge
Bridge No. 2399

Rating Criteria:

The following information was used to complete the enclosed load rating computations.

References

- AASHTO The Manual for Bridge Evaluation (MBE), Second Edition, 2011 w/ 2016 Interims
- AASHTO LRFD Bridge Design Specifications (BDS), Seventh Edition, 2014, w/ 2016 Interims
- MaineDOT Load Rating Guide, 2015
- MaineDOT Highway Bridge Inspection Report
- Canadian Highway Bridge Design Code, (CHBDC) 2016 Reprint

Serviceability & Fatigue

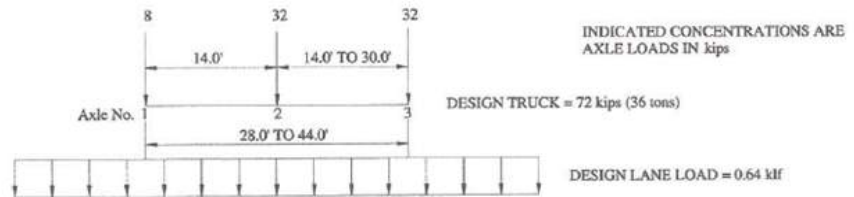
The MaineDOT Load Rating Guide article 3.7.1, indicates the serviceability checks are to be evaluated on individual basis where the bridge's use, structure type, or specific details may cause concern. HNTB was directed by the Department to not perform any additional work beyond updating the existing ratings that were developed as part of the 2012 load ratings. It should be noted that the 2017 inspection performed by HNTB did note several conditions including stress cracks to stringers, that would warrant a serviceability evaluation. Fatigue life was not evaluated as part of the 2012 load rating and following the guidance from the Department, new fatigue life calculations were not developed. Its recommended that a serviceability and fatigue life evaluation be performed during the next analysis or load rating of the structure.

Live Load

Canadian Vehicle:	The CL-625-ONT was rated based on the AASHTO methodology but used the live load factors based on the CHBDC. Therefore the member capacities, limit states, system factors, condition factors, distribution factors, dead load factor, and rating equation were based on AASHTO. The multiple presence factor, dynamic loading factors, and live load factors were based on the CHBDC.
Dynamic Impact Factor:	IM = 1.33 for HL-93 & MaineDOT Legal Loads IM = 1.25 for CL-625-ONT Truck IM = 1.00 for CL-625-ONT Lane Load
Live Load Configurations:	AASHTO HL-93 and CL-625-ONT were evaluated for all ratings. If the HL-93 inventory rating was below 1.0 then Maine State Legal Load Configurations 1 - 8 were also evaluated.

Madawaska Bridge

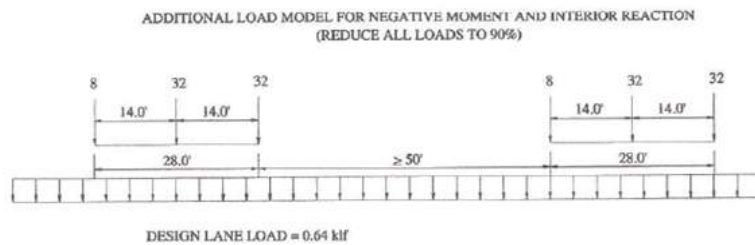
Bridge No. 2399



HL-93 Design Truck with Lane Load

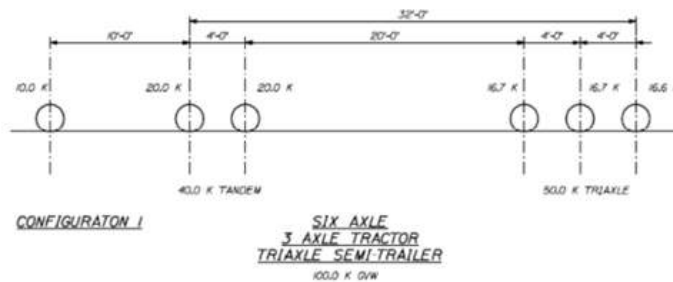


HL-93 Design Tandem with Lane Load



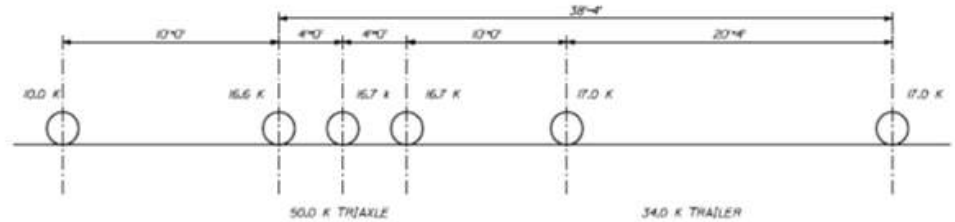
HL-93 Design Truck with Lane Load for Negative Moments

State Legal Configurations



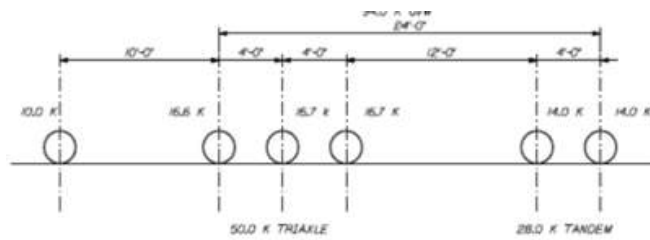
Madawaska Bridge

Bridge No. 2399



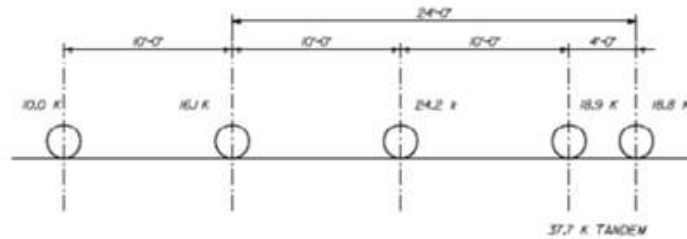
CONFIGURATON 2

SIX AXLE
TRIAxLE TRUCK
2 AXLE TRAILER
94.0 K GVW



CONFIGURATON 3

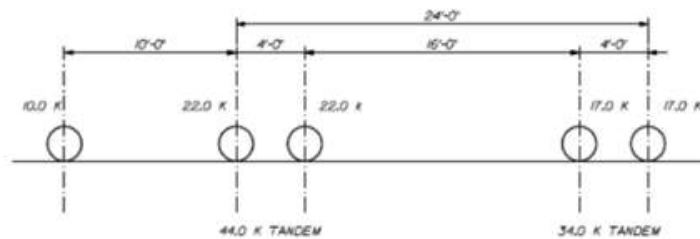
SIX AXLE
TRIAxLE TRUCK/TRACTOR
TANDEM SEMI-TRAILER
88.0 K GVW



CONFIGURATON 4

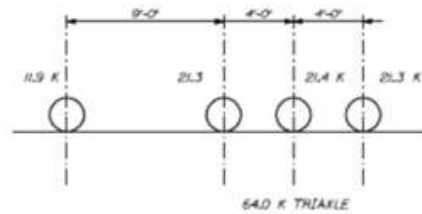
FIVE AXLE
TWO AXLE TRUCK/TRACTOR
THREE AXLE TRAILER
88.0 K GVW

REVISION 03-07-11

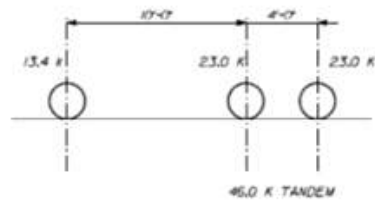


CONFIGURATON 5

FIVE AXLE
TANDEM AXLE TRUCK
OR TRACTOR SEMI-TRAILER
88.0 K GVW



CONFIGURATON 6 FOUR AXLE TRUCK
75.9 K GVW

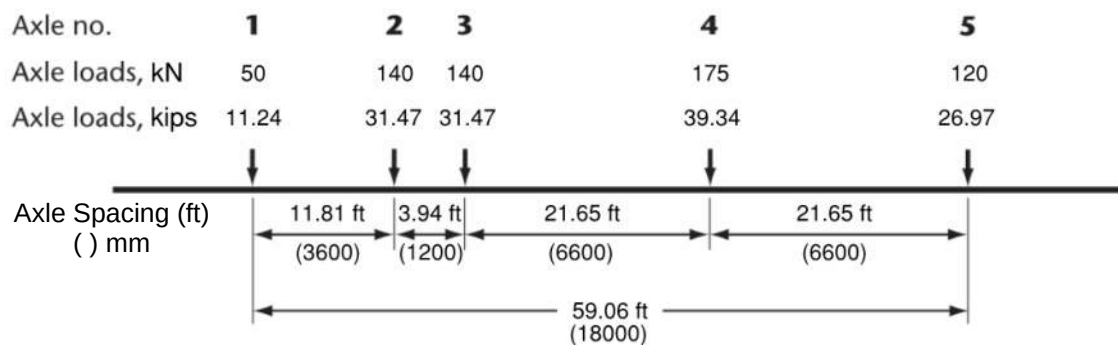


CONFIGURATON 7 THREE AXLE TRUCK
59.0 K GVW



CONFIGURATON 8 TWO AXLE TRUCK
37.4 K GVW

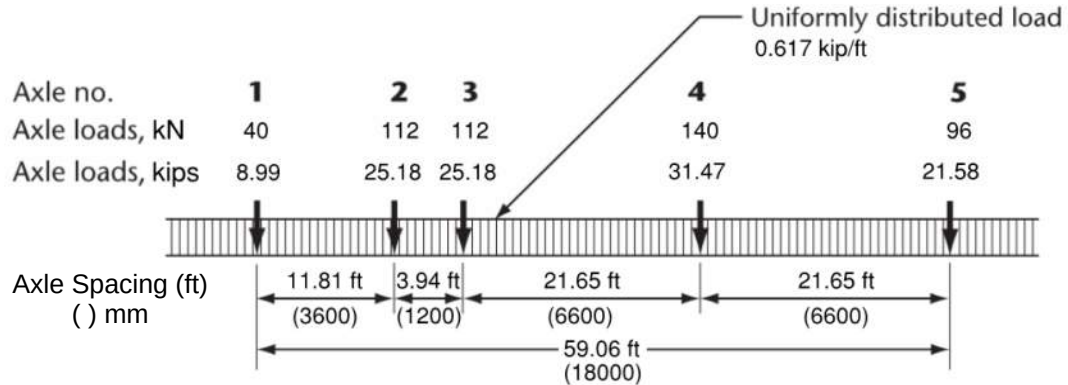
Canadian Vehicle Configurations



CL-625-ONT Truck

Madawaska Bridge

Bridge No. 2399



CL-625-ONT Lane load

Live Load Distribution: Transverse placement of axle loads was based on existing lanes (two 10'-0" lanes with two 4" shoulders) per article 6A.2.3.2 of the Manual for Bridge Evaluation. Distribution factors were taken from the 2012 PB Load Rating.

Live Load Factors: HL-93 $\gamma_{LL} = 1.75$ (Inventory) & 1.35 (Operating)
State Legals $\gamma_{LL} = 1.3$ per MBE Tables B6A-2 and B6A-3 for ADTT < 1,000
CL-625-ONT $\gamma_{LL} = 1.63$ (Inventory) & 1.35 (Operating) Per CHBDC 14.8
The Canadian live load factors were based on selecting a reliability index. The reliability indexes chosen for the ratings were 3.5 for inventory and 2.5 for operating based on AASHTO MBE C6A.1.3. Using the reliability indexes from the AASHTO MBE, live load factors were selected from the CHBDC Table 14.8.

Condition Factors

Stringers/Floorbeams: $\phi_c = 0.90$ (poor condition, 0.85, per Inspection Report, MBE Table 6A.4.2.3)
(add 0.05, field measured section losses, MBE C6a.4.2.3)
Truss & Gusset Plates: $\phi_c = 0.95$ (fair condition, per Inspection Report, MBE Table 6A.4.2.3)
(elements at or below the roadway)
Truss & Gusset Plates: $\phi_c = 1.00$ (satisfactory condition, per Inspection Report, MBE Table 6A.4.2.3)
(elements at mid height of the truss or above)

System Factors

Stringers: $\phi_s = 1.00$ (Redundant Stringer Subsystems btwn FBs, MBE Table 6A.4.2.4-1)
Floorbeams: $\phi_s = 0.85$ (FBs Spa > 12ft w noncontinuous stringers, MBE Table 6A.4.2.4-1)
Truss & Gussets: $\phi_s = 0.90$ (Riveted Members in Truss, MBE Table 6A.4.2.4-1)

Materials

Structural Steel: $f_y = 30$ ksi (Per the 2012 load rating, consistent with MBE Table 6A.6.2.1-1 for year built of 1921)

Madawaska Bridge
Bridge No. 2399

Summary of Load Rating Calculations:

This load rating was developed using a LRFR methodology and in accordance with the Maine Department of Transportation guidelines. The calculations herein reflect one method of analysis. The analysis was performed based on the MBE code-prescribed analytical procedures. The trusses, floorbeams, stringers, and gusset plates were rated for the HL-93 design load. If the Inventory Rating Factor for the HL-93 was less than 1.0, the controlling elements were also rated for the eight MaineDOT Legal Load Configurations. Additionally, load rating factor were provided for the Canadian vehicle CL-625-ONT. The floorbeams and stringers were found to have significantly low ratings factors based on the section losses documented in the 2017 inspection. These elements should be considered in determining the safe load carrying capacity of the structure. In revising the gusset plate ratings a few items were noted that should be further investigated regarding the way member capacities were determined.

Assumptions:

- Dead loads on all members were based on the 2012 load rating report.
- Live load effects for the HL-93 were based on the 2012 load rating report.
- Distribution factors were based on the 2012 load rating report.
- Live load effects for the State Legal loads were based on the 2012 load rating report where available. If not available, new load effects were developed for the legal loads based on the 2012 load rating approach.
- Member capacities for the truss members and gusset plates were based on the 2012 load rating report.
- Section losses and member condition factors were taken from the HNTB 2017 inspection report.
- Additional assumptions and analysis approaches were further described within each section of this rating report.

TRUSS LOAD RATING ANALYSIS

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 1 of <u>2</u>

Project: Madawaska Bridge Rating	Job No: 63738	Design Criteria Document: 1
Client: MaineDOT	Discipline: Structures	Calculation No: 1

Name or Description of Calculation: Madawaska Bridge Rating – Truss Members				
Calc. Rev. No.	Originator	Checker	Senior Technical Reviewer (if required)	Confirmation Required (Y/N)
1	James Anderson	Shane M. Zeller		

Calculation Objective:
Determine load ratings for the truss members of Madawaska Bridge.

Calculation Methodology/List of Assumptions:
The truss members were rated for the following vehicles:

- AASHTO HL-93
- Maine State Legal Loads
- CHBDC CL-625-ONT (Canadian Vehicle)

HNTB was requested to provide an update to the 2012 load rating performed by PARSONS BRINKERHOFF (PB). The revised ratings would consider the latest condition finding from HNTB's 2017 inspection and include the Canadian vehicle CL-625-ONT.

Per the project scope, HNTB used the existing dead loads, existing HL-93 load effects and member capacities from the 2012 PB rating. HNTB calculated load effects for the Canadian vehicle and legal loads as needed, and adjusted the member capacities using system factors and condition factors. The condition factors were based on the conditions found during the HNTB 2017 inspection. Using the revised member capacities and load effects, new rating values were calculated. HNTB was not scoped to calculate section properties based on section losses and member dimensions.

Based on the inspection, a condition factor of 0.95 was used for the bottom chord and members attached to the bottom chord. A condition factor of 1.0 was used for the top chord and members connected to mid-point gusset plates that extend to the top chord. A system factor of 0.90 was used because the bridge is a riveted truss.

In calculating the ratings for the Canadian vehicle, the method agreed upon in the scope was to follow the MaineDOT load rating manual & AASHTO MBE with the exception that the CHBDC live load factors would be used. This included the multiple presence factor (0.9, 2 lane), dynamic loading allowance factor (1.25 for truck, 1.0 lane load), and live load factors (1.63 inv. & 1.35 oper.). The Canadian live load factors were based on selecting reliability indexes. The reliability indexes chosen for the ratings were 3.5 for inventory and 2.5 for operating based on AASHTO MBE C6A.1.3.

The rating was performed in the following manner: The existing truss member ratings were performed in the TRAP program by PB. HNTB reviewed the output file from the TRAP analysis and retrieved the truss geometry, member section properties, and distribution factors. With the data from the PB analysis, HNTB created a model in PennDOT's BAR7 program. The model was run with all the required vehicles including the HL93. Though the HL93 load effects were not used for the final ratings, they were used to verify that the load effects from BAR7 matched the load effects from TRAP, which validated the BAR7 model. Following development of the BAR7 analysis the load effects were exported to EXCEL and post-processed to a usable format. EXCEL was used to combine the CL-625-ONT lane load with the CL-625-ONT truck because the truck and lane cannot be run together in BAR7. The data was used to determine if lane load

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 2 of <u>2</u>

or truck controlled for the CL-625-ONT. EXCEL spreadsheets were then developed to modify the existing member capacities and calculate new rating factors.

References/Inputs:

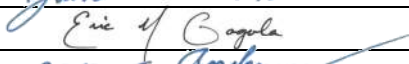
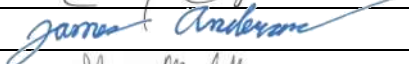
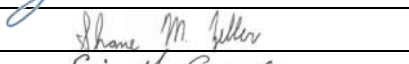
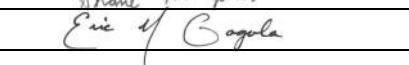
Maine Department of Transportation load rating guide
AASHTO LRFD 2014 (2016 Interims)
AASHTO Manual for Bridge Evaluation (MBE) 2011 (2016 Interims)
BAR7 User Manual
Canadian Highway Bridge Design Code (CHBDC) S6-14

Attachments:

In-House Spreadsheet Calculations
BAR7 Output
2012 PB Load Rating References

Conclusions:

See rating summary table.
Note the 2012 PB loading did not include a system or condition factor. Though the overall conditions of the truss members have not changed the inclusion of the appropriate factors did reduce the ratings and required the Maine State Legal loads to be rated.

Document Check:	Name	Signature	Date
Originator:	James Anderson		10/04/2017
Checker:	Eric Gogola		10/09/2017
BackChecker:	James Anderson		10/09/2017
Updater:	Shane M. Zeller		10/09/2017
Verifier:	Eric Gogola		10/09/2017

TRUSS RATING SUMMARY

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Summary of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

	Member I.D. (per)		HL-93	HL-93	Maine	Maine	Maine	Maine	Maine	Maine	Maine	Maine	CL-625-ONT	CL-625-ONT
	Plans	BAR7	Inv.	Oper.	Legal-1	Legal-2	Legal-3	Legal-4	Legal-5	Legal-6	Legal-7	Legal-8	Inv.	Oper.
Lower Chord	L0 - L1	L0 - L1	1.13	1.47	2.08	2.25	2.33	2.30	2.33	2.58	3.28	5.18	1.32	1.60
	L1 - L2	L1 - L2	1.13	1.47	2.08	2.25	2.33	2.30	2.33	2.58	3.28	5.18	1.32	1.60
	L2 - L3	L2 - L3	0.89	1.16	1.66	1.65	1.68	1.72	1.71	1.76	2.24	3.51	1.08	1.31
	L3 - L4	L3 - L4	0.89	1.16	1.66	1.65	1.68	1.72	1.71	1.76	2.24	3.51	1.08	1.31
	L4 - L5	L4 - L5	0.89	1.15	1.61	1.66	1.72	1.73	1.73	1.87	2.37	3.72	1.04	1.26
	L5 - L6	L5 - L6	0.89	1.15	1.61	1.66	1.72	1.73	1.73	1.87	2.37	3.72	1.04	1.26
	L6 - L5	L5 - L6	0.89	1.15	1.61	1.66	1.72	1.73	1.73	1.87	2.37	3.72	1.04	1.26
	L5 - L4	L4 - L5	0.89	1.15	1.61	1.66	1.72	1.73	1.73	1.87	2.37	3.72	1.04	1.26
	L4 - L3	L3 - L4	0.89	1.16	1.66	1.65	1.68	1.72	1.71	1.76	2.24	3.51	1.08	1.31
	L3 - L2	L2 - L3	0.89	1.16	1.66	1.65	1.68	1.72	1.71	1.76	2.24	3.51	1.08	1.31
	L2 - L1	L1 - L2	1.13	1.47	2.08	2.25	2.33	2.30	2.33	2.58	3.28	5.18	1.32	1.60
	L1 - L0	L0 - L1	1.13	1.47	2.08	2.25	2.33	2.30	2.33	2.58	3.28	5.18	1.32	1.60

	Member I.D. (per)		HL-93	HL-93	Maine	Maine	Maine	Maine	Maine	Maine	Maine	Maine	CL-625-ONT	CL-625-ONT
	Plans	BAR7	Inv.	Oper.	Legal-1	Legal-2	Legal-3	Legal-4	Legal-5	Legal-6	Legal-7	Legal-8	Inv.	Oper.
Upper Chord	U1 - U2	U1 - U2	1.27	1.65	2.35	2.49	2.62	2.59	2.62	2.89	3.67	5.80	1.46	1.77
	U2 - U3	U2 - U3	1.14	1.48	2.11	2.21	2.32	2.32	2.33	2.58	3.29	5.18	1.31	1.58
	U3 - U4	U3 - U4	1.14	1.48	2.11	2.21	2.32	2.32	2.33	2.58	3.29	5.18	1.31	1.58
	U4 - U5	U4 - U5	1.15	1.49	2.16	2.24	2.33	2.34	2.35	2.60	3.30	5.24	1.33	1.61
	U5 - U6	U5 - U6	1.15	1.49	2.16	2.24	2.33	2.34	2.35	2.60	3.30	5.24	1.33	1.61
	U6 - U5	U5 - U6	1.15	1.49	2.16	2.24	2.33	2.34	2.35	2.60	3.30	5.24	1.33	1.61
	U5 - U4	U4 - U5	1.15	1.49	2.16	2.24	2.33	2.34	2.35	2.60	3.30	5.24	1.33	1.61
	U4 - U3	U3 - U4	1.14	1.48	2.11	2.21	2.32	2.32	2.33	2.58	3.29	5.18	1.31	1.58
	U3 - U2	U2 - U3	1.14	1.48	2.11	2.21	2.32	2.32	2.33	2.58	3.29	5.18	1.31	1.58
	U2 - U1	U1 - U2	1.27	1.65	2.35	2.49	2.62	2.59	2.62	2.89	3.67	5.80	1.46	1.77

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Summary of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

	Member I.D. (per)		HL-93	HL-93	Maine	Maine	Maine	Maine	Maine	Maine	Maine	Maine	CL-625-ONT	CL-625-ONT
	Plans	BAR7	Inv.	Oper.	Legal-1	Legal-2	Legal-3	Legal-4	Legal-5	Legal-6	Legal-7	Legal-8	Inv.	Oper.
Verticals	U1 - L1	U1 - L1	0.90	1.17	1.47	1.26	1.32	1.37	1.42	1.07	1.33	2.06	0.98	1.18
	U2 - L2	U2 - L2	2.37	3.08	3.77	3.62	3.49	3.63	3.59	3.42	4.32	6.68	2.69	3.24
	U2 - L2	U2 - L2	2.27	2.95	3.74	4.08	4.17	4.09	4.17	4.53	5.74	9.03	2.70	3.26
	U3 - M3	U3 - M3	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	M3 - L3	M3 - L3	0.88	1.15	1.45	1.23	1.29	1.34	1.38	1.06	1.31	2.05	0.97	1.17
	U4 - L4	U4 - L4	1.78	2.31	2.69	2.80	2.86	2.84	2.87	3.01	3.77	5.90	1.90	2.29
	U4 - L4	U4 - L4	2.60	3.37	4.02	4.41	4.45	4.34	4.45	4.71	5.95	9.37	2.92	3.53
	U5 - M5	U5 - M5	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	M5 - L5	M5 - L5	0.88	1.14	1.44	1.23	1.28	1.34	1.37	1.05	1.30	2.04	0.96	1.16
	U6 - L6	U6 - L6	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	M5 - L5	M5 - L5	0.88	1.14	1.44	1.23	1.28	1.34	1.37	1.05	1.30	2.04	0.96	1.16
	U5 - M5	U5 - M5	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	U4 - L4	U4 - L4	1.78	2.31	2.69	2.80	2.86	2.84	2.87	3.01	3.77	5.90	1.90	2.29
	U4 - L4	U4 - L4	2.60	3.37	4.02	4.41	4.45	4.34	4.45	4.71	5.95	9.37	2.92	3.53
	M3 - L3	M3 - L3	0.88	1.15	1.45	1.23	1.29	1.34	1.38	1.06	1.31	2.05	0.97	1.17
	U3 - M3	U3 - M3	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	U2 - L2	U2 - L2	2.37	3.08	3.77	3.62	3.49	3.63	3.59	3.42	4.32	6.68	2.69	3.24
	U2 - L2	U2 - L2	2.27	2.94	3.74	4.07	4.17	4.09	4.17	4.53	5.73	9.02	2.69	3.25
	U1 - L1	U1 - L1	0.90	1.17	1.47	1.26	1.32	1.37	1.42	1.07	1.33	2.06	0.98	1.18

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Summary of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

	Member I.D. (per)		HL-93	HL-93	Maine	Maine	Maine	Maine	Maine	Maine	Maine	Maine	CL-625-ONT	CL-625-ONT
	Plans	BAR7	Inv.	Oper.	Legal-1	Legal-2	Legal-3	Legal-4	Legal-5	Legal-6	Legal-7	Legal-8	Inv.	Oper.
Diagonals	L0 - U1	L0 - U1	1.53	1.98	2.80	3.03	3.14	3.10	3.14	3.47	4.41	6.96	1.78	2.15
	U1 - L2	U1 - L2	1.11	1.44	1.94	2.10	2.18	2.14	2.17	2.39	3.04	4.78	1.29	1.56
	U1 - L2	U1 - L2	4.43	5.75	6.99	7.30	7.35	6.90	7.35	5.19	6.18	9.05	4.98	6.02
	L2 - M3	L2 - M3	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	L2 - M3	L2 - M3	1.05	1.36	1.72	1.46	1.52	1.59	1.63	1.25	1.55	2.42	1.14	1.38
	M3 - U2	M3 - U2	1.08	1.41	1.82	1.96	2.03	1.99	2.03	2.20	2.79	4.40	1.26	1.53
	M3 - U2	M3 - U2	2.77	3.59	4.41	4.28	4.11	4.12	4.17	3.88	4.81	7.40	3.11	3.75
	M3 - L4	M3 - L4	1.20	1.56	1.96	2.13	2.19	2.15	2.19	2.37	3.01	4.74	1.41	1.71
	M3 - L4	M3 - L4	1.52	1.98	2.30	2.43	2.43	2.30	2.45	2.31	2.87	4.47	1.71	2.07
	L4 - M5	L4 - M5	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	L4 - M5	L4 - M5	1.16	1.51	1.91	1.62	1.69	1.77	1.81	1.39	1.72	2.69	1.27	1.53
	M5 - U4	M5 - U4	1.23	1.59	1.95	2.07	2.15	2.11	2.15	2.29	2.89	4.54	1.36	1.64
	M5 - U4	M5 - U4	2.20	2.86	3.31	3.49	3.56	3.45	3.58	3.62	4.53	7.08	2.36	2.85
	M5 - L6	M5 - L6	1.34	1.73	2.06	2.26	2.29	2.22	2.28	2.41	3.05	4.78	1.52	1.84
	M5 - L6	M5 - L6	1.58	2.05	2.36	2.61	2.60	2.51	2.59	2.69	3.39	5.31	1.79	2.16
	M5 - L6	M5 - L6	1.34	1.73	2.06	2.26	2.29	2.22	2.28	2.41	3.05	4.78	1.52	1.84
	M5 - L6	M5 - L6	1.58	2.05	2.36	2.61	2.60	2.51	2.59	2.69	3.39	5.31	1.79	2.16
	M5 - U4	M5 - U4	1.23	1.59	1.95	2.07	2.15	2.11	2.15	2.29	2.89	4.54	1.36	1.64
	M5 - U4	M5 - U4	2.20	2.86	3.31	3.49	3.56	3.45	3.58	3.62	4.53	7.08	2.36	2.85
	L4 - M5	L4 - M5	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	L4 - M5	L4 - M5	1.16	1.51	1.91	1.62	1.69	1.77	1.81	1.39	1.72	2.69	1.27	1.53
	M3 - L4	M3 - L4	1.20	1.56	1.96	2.13	2.19	2.15	2.19	2.37	3.01	4.74	1.41	1.71
	M3 - L4	M3 - L4	1.52	1.98	2.30	2.43	2.43	2.30	2.45	2.31	2.87	4.47	1.71	2.07
	M3 - U2	M3 - U2	1.08	1.41	1.82	1.96	2.03	1.99	2.03	2.20	2.79	4.40	1.26	1.53
	M3 - U2	M3 - U2	2.77	3.59	4.41	4.28	4.11	4.12	4.17	3.88	4.81	7.40	3.11	3.75
	L2 - M3	L2 - M3	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00	999.00
	L2 - M3	L2 - M3	1.05	1.37	1.73	1.47	1.54	1.60	1.64	1.26	1.56	2.44	1.15	1.39
	U1 - L2	U1 - L2	1.11	1.44	1.94	2.10	2.18	2.14	2.17	2.39	3.04	4.78	1.29	1.56
	U1 - L2	U1 - L2	4.43	5.75	6.99	7.30	7.35	6.90	7.35	5.19	6.18	9.05	4.98	6.02
	L0 - U1	L0 - U1	1.53	1.98	2.80	3.03	3.14	3.10	3.14	3.47	4.41	6.96	1.78	2.15

BAR7 INPUT INFORMATION (FROM 2012 PB LOAD RATING)

2012 PB LOAD RATING

RATING ANALYSIS ASSUMPTIONS AND CRITERIA

The inventory and operating capacity of the bridge was rated in accordance with the provisions of:

- The Manual for Bridge Evaluation, First Edition 2008, published by AASHTO
- American Association of the State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design Specifications, 5th Ed. 2010 and Interim Revisions
- Maine Department of Transportation. *Draft Load Rating Guide*. 2012.

The following material strengths were used in the rating:

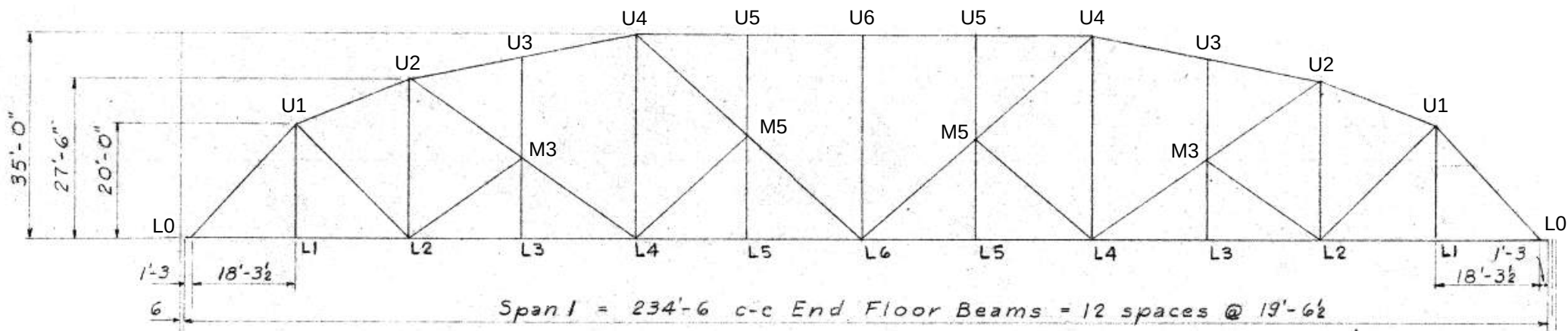
Original Section:

- Structural Steel: Fy = 30,000 psi (Assumed based on year built)
Fu = 60,000 psi (Assumed based on year built)

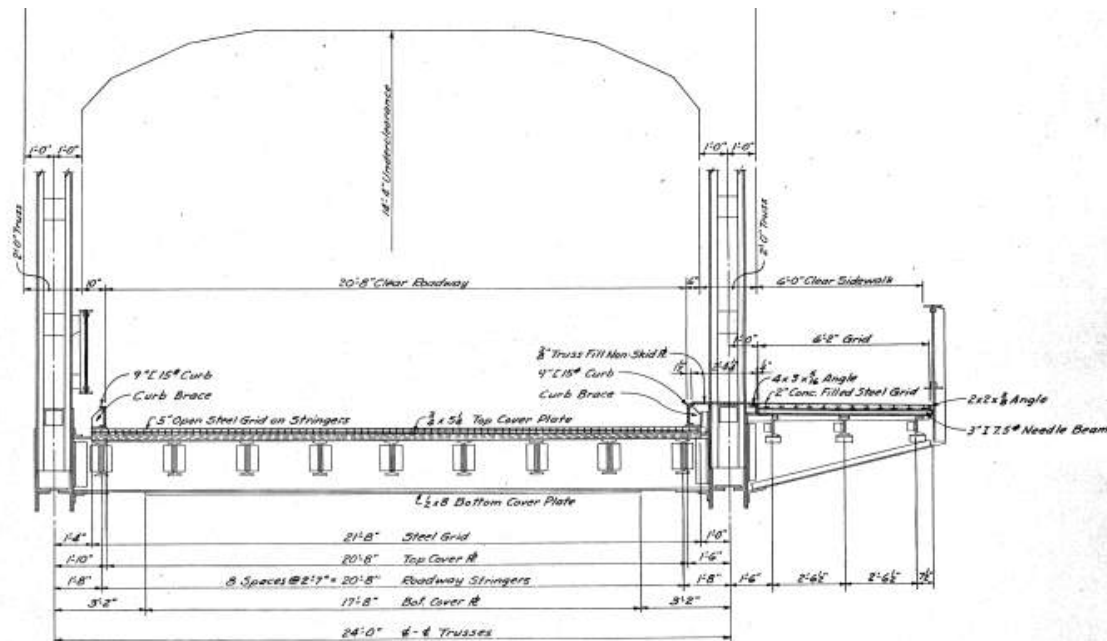
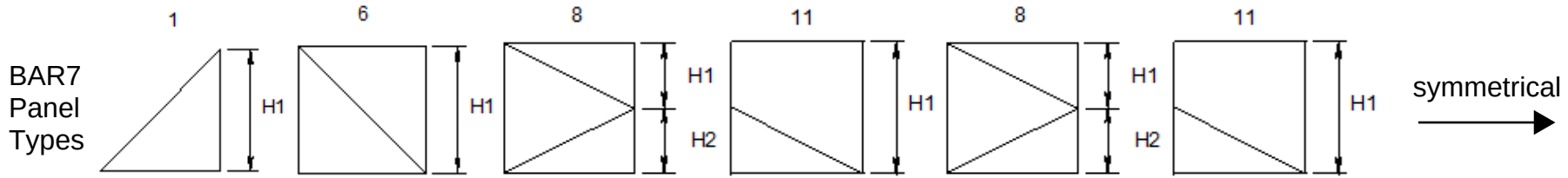
Live load was based on the MaineDOT Load Rating Guide. Ratings were performed using an HL-93 truck initially. If ratings were below 0.95 then Maine Legal Load truck ratings were performed.

Trusses were rated using TRAP software version 1.5 by the BEST Center. The steel stringers were rated using MERLIN-DASH Version 5.3 WSD/LFD/LRFD software by the BEST Center. Floorbeams were rated using a spreadsheet with loads generated from GTSTRUDL. Gusset plates were rated using spreadsheets. Spreadsheets for floorbeams and gusset plates were validated by manual computations.

Rating was performed based on the information shown on the drawings provided by the state, and current inspection reports. The inspection report noted corrosion in one floorbeam. This was subtracted from the moment of inertia for the floorbeams calculations. See floorbeam calculations for details. The inspection report also noted utilities which were added to the dead load calculations for the truss.



TYPICAL TRUSS ELEVATION



TYPICAL TRUSS SECTION



PARSONS BRINCKERHOFF COMPUTATION SHEET

13

Page 2 of Made by B. HOLSAPPLEDate 3/1/2012Checked by ISDate 4/4/2012Subject MAINE NORTH TRUSSES - 2399 MADAWASKA
TRAP INPUT

NODES - BOTH TRUSSES, ALL 4 SPANS

	LOWER		UPPER		LEVEL A	
	X	Y	X	Y	X	Y
1	0	0				
2	18.29	0	18.29	20		
3	37.83	0	37.83	27.5		
4	57.38	0	57.38	31.25	57.38	13.75
5	76.92	0	76.92	35		
6	96.46	0	96.46	35	96.46	17.5
7	116.00	0	116.00	35		
8	135.54	0	135.54	35	135.54	17.5
9	155.08	0	155.08	35		
10	174.63	0	174.63	31.25	174.63	13.75
11	194.17	0	194.17	27.5		
12	213.71	0	213.71	20		
13	232.00	0				

2012 PB Rating Panel Point Data

MEMBER CABLE				MEMBER CABLE			
HL-93	0.00	0.00	- 0	0.00	0.00	1	
STATE VEHICULAR LOADINGS							

VEHICLE 1 NAME	VEHICLE 2 NAME	VEHICLE 3 NAME	ALLOW STRESS FACTOR MEMBER CABLE				
			0.00	0.00			
1							

TRUSS RATING AND ANALYSIS PROGRAM (TRAP)

PAGE 3

TABLE 1.5 **PANEL POINT DATA**

LOWER PANEL POINT				UPPER PANEL POINT				ADDITIONAL POINT A				ADDITIONAL	
POINT B													
PP -----													

NO	X-COOR	Y-COOR	RE	X-COOR	Y-COOR	RE	X-COOR	Y-COOR	RE	X-COOR	Y-		
COOR	RE												
(FT)	(FT)	(FT)	XY	(FT)	(FT)	XY	(FT)	(FT)	XY	(FT)			
(FT)	XY												
1	0.00	0.000	11	0.00	0.000	00	0.00	0.000	00	0.00			
0.000	00												
2	18.29	0.000	00	18.29	20.000	00	0.00	0.000	00	0.00			
0.000	00												
3	37.83	0.000	00	37.83	27.500	00	0.00	0.000	00	0.00			
0.000	00												
4	57.38	0.000	00	57.38	31.250	00	57.38	13.750	00	0.00			
0.000	00												
5	76.92	0.000	00	76.92	35.000	00	0.00	0.000	00	0.00			
0.000	00												
6	96.46	0.000	00	96.46	35.000	00	96.46	17.500	00	0.00			
0.000	00												
7	116.00	0.000	00	116.00	35.000	00	0.00	0.000	00	0.00			
0.000	00												
8	135.54	0.000	00	135.54	35.000	00	135.54	17.500	00	0.00			
0.000	00												
9	155.08	0.000	00	155.08	35.000	00	0.00	0.000	00	0.00			
0.000	00												
10	174.63	0.000	00	174.63	31.250	00	174.63	13.750	00	0.00			
0.000	00												
11	194.17	0.000	00	194.17	27.500	00	0.00	0.000	00	0.00			
0.000	00												
12	213.71	0.000	00	213.71	20.000	00	0.00	0.000	00	0.00			
0.000	00												
13	232.00	0.000	01	0.00	0.000	00	0.00	0.000	00	0.00			
0.000	00												

1

BRIDGE ENGINEERING SOFTWARE & TECHNOLOGY CENTER
DEPARTMENT OF CIVIL ENGINEERING

TRAP



Project: Maine North Truss Inspections
Task: Bridge 2399 - Madawaska
Client: Maine

Made by: BDH
Date: 3/8/2012
Checked by: IJ
Date: 5/29/2012

Truss Member Section Properties

Both Trusses						Out of Plane				In Plane				Max	TRAP r
Member			Area [in ²]		Ix	rx	Lx	KLx/rx	Iy	ry	Ly	KLy/ry			
Plans	Trap	Section	Ag	An	[in ⁴]	[in]	[ft]		[in ⁴]	[in]	[ft]			KL/r	[in]
Lower Chord	L0L1	L1L2	4-L8x6x7/16	23.72	18.37	299	3.55		910	6.19					3.55
	L1L2	L2L3	4-L8x6x7/16	23.72	18.37	299	3.55		910	6.19					3.55
	L2L3	L3L4	4-L8x6x5/8	33.44	25.80	429	3.58		1252	6.12					3.58
	L3L4	L4L5	4-L8x6x5/8	33.44	25.80	429	3.58		1252	6.12					3.58
	L4L5	L5L6	4-L8x6x3/4	39.76	30.59	514	3.60		1467	6.07					3.60
	L5L6	L6L7	4-L8x6x3/4	39.76	30.59	514	3.60		1467	6.07					3.60
	L6L5	L7L8	4-L8x6x3/4	39.76	30.59	514	3.60		1467	6.07					3.60
	L5L4	L8L9	4-L8x6x3/4	39.76	30.59	514	3.60		1467	6.07					3.60
	L4L3	L9L10	4-L8x6x5/8	33.44	25.80	429	3.58		1252	6.12					3.58
	L3L2	L10L11	4-L8x6x5/8	33.44	25.80	429	3.58		1252	6.12					3.58
	L2L1	L11L12	4-L8x6x7/16	23.72	18.37	299	3.55		910	6.19					3.55
	L1L0	L12L13	4-L8x6x7/16	23.72	18.37	299	3.55		910	6.19					3.55
Upper Chord	U1U2	U2U3	2-15"C40# 1-C PI 24"x1/2"	35.60	N/A	1176	5.75		2413	8.23					5.75
	U2U3	U3U4	2-15"C45# 1-C PI 24"x9/16"	39.98	N/A	1292	5.68		2715	8.24					5.68
	U3U4	U4U5	2-15"C45# 1-C PI 24"x9/16"	39.98	N/A	1292	5.68		2715	8.24					5.68
	U4U5	U5U6	2-15"C50# 1-C PI 24"x5/8"	44.40	N/A	1415	5.64		3018	8.24					5.64
	U5U6	U6U7	2-15"C50# 1-C PI 24"x5/8"	44.40	N/A	1415	5.64		3018	8.24					5.64
	U6U5	U7U8	2-15"C50# 1-C PI 24"x5/8"	44.40	N/A	1415	5.64		3018	8.24					5.64
	U5U4	U8U9	2-15"C50# 1-C PI 24"x5/8"	44.40	N/A	1415	5.64		3018	8.24					5.64
	U4U3	U9U10	2-15"C45# 1-C PI 24"x9/16"	39.98	N/A	1292	5.68		2715	8.24					5.68
	U3U2	U10U11	2-15"C45# 1-C PI 24"x9/16"	39.98	N/A	1292	5.68		2715	8.24					5.68
	U2U1	U11U12	2-15"C40# 1-C PI 24"x1/2"	35.60	N/A	1176	5.75		2413	8.23					5.75



Project: Maine North Truss Inspections
Task: Bridge 2399 - Madawaska
Client: Maine

Made by: BDH
Date: 3/8/2012
Checked by: IJ
Date: 5/29/2012

Truss Member Section Properties

Both Trusses					Out of Plane				In Plane				Max	TRAP r
Member			Area [in ²]		Ix	rx	Lx	KLx/rx	Iy	ry	Ly	KLy/ry		
Plans	Trap	Section	Ag	An	[in ⁴]	[in]	[ft]		[in ⁴]	[in]	[ft]		KL/r	[in]
Verticals	U1L1	L2U2	4-L3.5x3x5/16	7.72	5.51	333	6.57		21	1.64				1.64
	U2L2	L3U3	4-L6x3.5x3/8	13.68	9.87	596	6.60		131	3.10				3.10
	U3M3	A4U4	2-L5x3x5/16	4.80	3.61	215	6.69		13	1.62				1.62
	M3L3	L4A4	4-L3.5x3x5/16	7.72	5.51	333	6.57		21	1.64				1.64
	U4L4	L5U5	4-L6x3.5x3/8	13.68	9.87	596	6.60		131	3.10				3.10
	U5M5	A6U6	2-L5x3x5/16	4.80	3.61	215	6.69		13	1.62				1.62
	M5L5	L6A6	4-L3.5x3x5/16	7.72	5.51	333	6.57		21	1.64				1.64
	U6L6	L7U7	4-L6x3.5x3/8	13.68	9.87	596	6.60		131	3.10				3.10
	M5L5	L8A8	4-L3.5x3x5/16	7.72	5.51	331	6.55		21	1.64				1.64
	U5M5	A8U8	2-L5x3x5/16	4.80	3.61	215	6.69		13	1.62				1.62
	U4L4	L9U9	4-L6x3.5x3/8	13.68	9.87	596	6.60		131	3.10				3.10
	M3L3	L10A10	4-L3.5x3x5/16	7.72	5.51	331	6.55		21	1.64				1.64
	U3M3	A10U10	2-L5x3x5/16	4.80	3.61	215	6.69		13	1.62				1.62
	U2L2	L11U11	4-L6x3.5x3/8	13.68	9.87	596	6.60		131	3.10				3.10
	U1L1	L12U12	4-L3.5x3x5/16	7.72	5.51	331	6.55		21	1.64				1.64
Diagonals	L0U1	L1U2	2-15"C50# 1-C PI 24"x5/8"	44.40	N/A	1415	5.64		3018	8.24				5.64
	U1L2	L3U2	4-L6x3.5x3/8	13.68	10.62	596	6.60		118	2.93				2.93
	L2M3	L3A4	2-L8x3.5x7/16	9.68	7.33	431	6.67		65	2.59				2.59
	M3U2	A4U3	4-L6x3.5x3/8	13.68	10.50	596	6.60		131	3.10				3.10
	M3L4	L5A4	4-L6x3.5x3/8	13.68	10.50	596	6.60		131	3.10				3.10
	L4M5	L5A6	2-L8x3.5x7/16	9.68	7.33	431	6.67		65	2.59				2.59
	M5U4	A6U5	4-L6x3.5x3/8	13.68	10.45	596	6.60		131	3.10				3.10
	M5L6	L7A6	4-L6x3.5x3/8	13.68	10.45	596	6.60		131	3.10				3.10
	M5L6	L7A8	4-L6x3.5x3/8	13.68	10.45	596	6.60		131	3.10				3.10
	M5U4	A8U9	4-L6x3.5x3/8	13.68	10.45	596	6.60		131	3.10				3.10
	L4M5	L9A8	2-L8x3.5x7/16	9.68	7.33	431	6.67		65	2.59				2.59
	M3L4	L9A10	4-L6x3.5x3/8	13.68	10.50	596	6.60		131	3.10				3.10
	M3U2	A10U11	4-L6x3.5x3/8	13.68	10.50	596	6.60		131	3.10				3.10
	L2M3	L11A10	2-L8x3.5x7/16	9.68	7.33	431	6.67		65	2.59				2.59
	U1L2	L11U12	4-L6x3.5x3/8	13.68	10.62	596	6.60		118	2.93				2.93
	L0U1	L13U12	2-15"C50# 1-C PI 24"x5/8"	44.40	N/A	1415	5.64		3018	8.24				5.64

Notes: No section losses on primary members

MAINEDOT LEGAL CONFIGURATIONS BAR7 OUTPUT

330409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

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PROGRAM P4353000
VERSION 7.14.0.1

LAST UPDATED 01/05/2015

09/28/2017 11:43
DOCUMENTATION 10/2014

INPUT: ... dawaska Bridge\Truss\Truss MaineDOT Trucks.dat

MADE BY: SMZ 9/28/17
CHECKED BY: JMA 10/6/17
BACKCHECKED BY: SMZ 10/8/17

PROJECT IDENTIFICATION

STRUCTURE ID - - MADAWASKA TRUSS

BRG TYPE	SLC LEV	LIVE LANS	OUT- PUT	IMP FACT	GAGE DIST	PASS DIST	FAT- IGUE	CONC DECK	SPEC	RE- DIST	DIR	S OVER FACTOR	END PAN
TTT		D	8 7	1.00	6.0	4.0	N			N		0.00	

SKEW
CORR PONY
HYB FACTOR TRUSS PDF
0.000 Y

BRIDGE CROSS SECTION AND LOADING

Includes Sidewalk (does not affect rating)

DECK WIDTH	OVERHANG OR SPACING	CL OF GIRDER OR TRUSS TO CURB	ROADWAY WIDTH	DISTRIBUTION SHEAR	FACTORS MOMENT DEFLECT
32.21	0.00	1.66	20.66	1.010	1.010 0.000

SLAB THICKNESS	HAUNCH	DEAD LOADS DL1	DL2	F'C	N	SYMMETRY
0.00	0.00	0.000	0.000	0.000	8.	Y

LIVE LOAD LOCATION	NO. OF PANELS	END COND.	CORS	HINGE AT	TEMP CHANGE	END BRG.
L	12	P		L 0	0.	L

STRINGER DL1	FLOORBEAM DL1	UNIT WEIGHT DECK CONCRETE	GUSSET ANALYSIS	PATCH LOAD ANALYSIS
0.000	0.000	0.00		

UNSYMM PIER
SUPPORT

SPAN LENGTHS (SIMPLE)

SPAN # 1
LENGTH 232.00

TRAFFIC LANE LOCATIONS

LANE #	1	2	3	4	5	6
DIST						
WIDTH						
% LL						

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	18.30	Y	20.00	0.00	0.00	1
2	19.54	Y	27.50	0.00	0.00	6
3	19.54	Y	17.50	13.75	0.00	8
4	19.54	Y	35.00	0.00	0.00	11

5	19.54	Y	17.50	17.50	0.00	8
6	19.54	Y	35.00	0.00	0.00	11

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD

TRUSS MEMBER PROPERTIES

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0L 1	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 1L 2	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2L 3	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 3L 4	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4L 5	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 5L 6	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER	GROSS AREA	NET AREA	MOMENT OF	UNBRACED LENGTH	FLANGE	FAT	GROSS AREA

ID	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
U 1U 2	35.60	0.00	1176.0	30.0	0.00	0.00	0.00	0.00		60.0	35.60

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	2413.

MEMBER U 1U 2: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 2U 3	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	2715.

MEMBER U 2U 3: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 3U 4	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	2715.

MEMBER U 3U 4: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 4U 5	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	3018.

MEMBER U 4U 5: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 5U 6	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	3018.

MEMBER U 5U 6: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.

THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE
NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 1	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 2L 2	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 3M 3	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 3L 3	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 4L 4	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 5M 5	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 5L 5	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 6L 6	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0U 1	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 3018.		

MEMBER L 0U 1: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 2	13.68	10.62	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 118.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2M 3	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 65.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3U 2	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3L 4	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4M 5	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC		MOMENT OF INERTIA IYC		TORSION INERTIA JXY		MOMENT OF INERTIA IY		

	0.0	0.00	0.00	0.00	0.000	65.					
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5U 4	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	CAT	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT				
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA				
	0.0	LENGTH	SXC	IYC	JXY	IY	131.				
		0.00	0.00	0.00	0.000						
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5L 6	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	CAT	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT				
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA				
	0.0	LENGTH	SXC	IYC	JXY	IY	131.				
		0.00	0.00	0.00	0.000						

SPECIAL LIVE LOADING 1 MaineDOT Legal Configuration 1

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
6		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	10.00	10.00	2	20.00	4.00	3	20.00	20.00	4	16.70	4.00
5	16.70	4.00	6	16.60	0.00						

SPECIAL LIVE LOADING 2 MaineDOT Legal Configuration 2

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
6		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	10.00	10.00	2	16.60	4.00	3	16.70	4.00	4	16.70	10.00
5	17.00	20.30	6	17.00	0.00						

SPECIAL LIVE LOADING 3 MaineDOT Legal Configuration 3

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
6		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	10.00	10.00	2	16.60	4.00	3	16.70	4.00	4	16.70	12.00
5	14.00	4.00	6	14.00	0.00						

SPECIAL LIVE LOADING 4 MaineDOT Legal Configuration 4

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
5		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	10.00	10.00	2	16.10	10.00	3	24.20	10.00	4	18.90	4.00
5	18.80	0.00									

SPECIAL LIVE LOADING 5 MaineDOT Legal Configuration 5

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
5		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	10.00	10.00	2	22.00	4.00	3	22.00	16.00	4	17.00	4.00
5	17.00	0.00									

SPECIAL LIVE LOADING 6 MaineDOT Legal Configuration 6

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
4		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	11.90	9.00	2	21.30	4.00	3	21.40	4.00	4	21.30	0.00

SPECIAL LIVE LOADING 7 MaineDOT Legal Configuration 7

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
3		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	13.40	10.00	2	23.00	4.00	3	23.00	0.00			

SPECIAL LIVE LOADING 8 MaineDOT Legal Configuration 8

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
2		0.000	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	13.20	10.00	2	24.20	0.00						

DEFAULT VALUES

SLC LEVEL	LANES	GAGE DISTANCE	PASSING DISTANCE	CORS	END COND	UNIT WEIGHT DECK	END BRG LOC	GUSSET PLATE FU
I	---	---	---	S	---	150.0	-	---

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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES
 TRUSS TRUSS
 FORCE DEFLECTION
 1.014(2) 1.000(2)

BAR7 calculated distribution factor.

Slightly conservative to PB's 1.01 factor. →

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

NOTE: THE COMPRESSION CAPACITY OF THE CORRESPONDING TOP CHORDS AND VERTICAL CHORDS AT EACH SPECIFIED FLOORBEAM LOCATION MAY NOT BE MODIFIED BECAUSE THIS IS NOT A PONY TRUSS OR THE LATERAL STABILITY ANALYSIS IS NOT REQUESTED.

 * TRUSS - LIVE LOAD SP-1 *

MaineDOT Legal Configuration 1

MEMBER FORCES AND ALLOWABLE STRESS RATINGS

I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + IMPACT COMP	FORCE I.F.	TENS I.F.	ALLOWABLE COMP	FORCE TENS	RATING	FACTORS		
U 1U 2	20.93	0.0	-113.3	1.00	0.0	1.00	IR OR -484.5 -604.2	587.4	801.0	IR OR	4.275 5.331
U 2U 3	19.90	0.0	-135.8	1.00	0.0	1.00	IR OR -545.7 -680.6	659.7	899.5	IR OR	4.019 5.012
U 3U 4	19.90	0.0	-135.8	1.00	0.0	1.00	IR OR -545.7 -680.6	659.7	899.5	IR OR	4.019 5.012
U 4U 5	19.54	0.0	-147.4	1.00	0.0	1.00	IR OR -606.6 -756.4	732.6	999.0	IR OR	4.114 5.130
U 5U 6	19.54	0.0	-147.4	1.00	0.0	1.00	IR OR -606.6 -756.4	732.6	999.0	IR OR	4.114 5.130
L 0L 1	18.30	0.0	0.0	1.00	78.2	1.00	IR -309.9	391.4		IR	5.007

								OR	-386.5	533.7	OR	6.828
L 1L 2	19.54	0.0	0.0	1.00	78.2	1.00	IR	-306.3	391.4	IR	5.007	
							OR	-382.0	533.7	OR	6.828	
L 2L 3	19.54	0.0	0.0	1.00	130.8	1.00	IR	-432.5	551.8	IR	4.217	
							OR	-539.4	752.4	OR	5.751	
L 3L 4	19.54	0.0	0.0	1.00	130.8	1.00	IR	-432.5	551.8	IR	4.217	
							OR	-539.4	752.4	OR	5.751	
L 4L 5	19.54	0.0	0.0	1.00	155.4	1.00	IR	-514.6	656.0	IR	4.221	
							OR	-641.8	894.6	OR	5.755	
L 5L 6	19.54	0.0	0.0	1.00	155.4	1.00	IR	-514.6	656.0	IR	4.221	
							OR	-641.8	894.6	OR	5.755	
L 0U 1	27.11	0.0	-115.8	1.00	0.0	1.00	IR	-586.4	732.6	IR	5.065	
							OR	-731.3	999.0	OR	6.316	
U 1L 2	27.96	0.0	-16.2	1.00	50.7	1.00	IR	-183.5	225.7	IR	4.450	
							OR	-228.9	307.8	OR	6.069	
M 3U 2	23.89	0.0	-30.2	1.00	60.1	1.00	IR	-186.3	225.7	IR	3.756	
							OR	-232.3	307.8	OR	5.122	
M 5U 4	26.23	0.0	-38.5	1.00	64.1	1.00	IR	-184.8	225.7	IR	3.522	
							OR	-230.4	307.8	OR	4.802	
L 2M 3	23.89	0.0	-38.0	1.00	0.0	1.00	IR	-131.9	159.7	IR	3.468	
							OR	-164.5	217.8	OR	4.325	
M 3L 4	23.89	0.0	-55.0	1.00	60.1	1.00	IR	-186.3	225.7	IR	3.756	
							OR	-232.3	307.8	OR	5.122	
L 4M 5	26.23	0.0	-32.8	1.00	0.0	1.00	IR	-130.9	159.7	IR	3.989	
							OR	-163.2	217.8	OR	4.974	
M 5L 6	26.23	0.0	-51.3	1.00	64.1	1.00	IR	-184.8	225.7	IR	3.524	
							OR	-230.4	307.8	OR	4.805	
U 1L 1	20.00	0.0	0.0	1.00	43.5	1.00	IR	-106.3	127.4	IR	2.925	
							OR	-132.6	173.7	OR	3.989	
U 2L 2	27.50	0.0	-28.2	1.00	36.8	1.00	IR	-183.9	225.7	IR	6.134	
							OR	-229.3	307.8	OR	8.364	
U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999	
							OR	-83.0	108.0	OR	99.999	
U 4L 4	35.00	0.0	-24.7	1.00	48.6	1.00	IR	-177.9	225.7	IR	4.643	
							OR	-221.8	307.8	OR	6.331	
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999	
							OR	-83.0	108.0	OR	99.999	
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999	
							OR	-221.8	307.8	OR	99.999	
M 3L 3	13.75	0.0	0.0	1.00	43.8	1.00	IR	-107.9	127.4	IR	2.910	
							OR	-134.5	173.7	OR	3.968	
M 5L 5	17.50	0.0	0.0	1.00	43.8	1.00	IR	-107.0	127.4	IR	2.910	
							OR	-133.4	173.7	OR	3.968	

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL COMP	+ IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	43.8	1.00	IR -107.9	127.4	IR 2.910	145.49
					OR -134.5	173.7	OR 3.968	198.39

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	93.4	1.00
L12	0.0	93.4	1.00

 * TRUSS - LIVE LOAD SP-2 *

MaineDOT Legal Configuration 2

MEMBER FORCES AND ALLOWABLE STRESS RATINGS I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.	ALLOWABLE FORCE COMP	TENS	RATING	FACTORS
U 1U 2	20.93	0.0	-106.8	1.00	0.0	1.00	IR OR -484.5 -604.2	587.4 801.0	IR OR	4.537 5.658
U 2U 3	19.90	0.0	-129.8	1.00	0.0	1.00	IR OR -545.7 -680.6	659.7 899.5	IR OR	4.205 5.243
U 3U 4	19.90	0.0	-129.8	1.00	0.0	1.00	IR OR -545.7 -680.6	659.7 899.5	IR OR	4.205 5.243
U 4U 5	19.54	0.0	-142.5	1.00	0.0	1.00	IR OR -606.6 -756.4	732.6 999.0	IR OR	4.257 5.308
U 5U 6	19.54	0.0	-142.5	1.00	0.0	1.00	IR OR -606.6 -756.4	732.6 999.0	IR OR	4.257 5.308
L 0L 1	18.30	0.0	0.0	1.00	72.3	1.00	IR OR -309.9 -386.5	391.4 533.7	IR OR	5.411 7.379
L 1L 2	19.54	0.0	0.0	1.00	72.3	1.00	IR OR -306.3 -382.0	391.4 533.7	IR OR	5.411 7.379
L 2L 3	19.54	0.0	0.0	1.00	132.1	1.00	IR OR -432.5 -539.4	551.8 752.4	IR OR	4.178 5.697
L 3L 4	19.54	0.0	0.0	1.00	132.1	1.00	IR OR -432.5 -539.4	551.8 752.4	IR OR	4.178 5.697
L 4L 5	19.54	0.0	0.0	1.00	150.4	1.00	IR OR -514.6 -641.8	656.0 894.6	IR OR	4.362 5.948
L 5L 6	19.54	0.0	0.0	1.00	150.4	1.00	IR OR -514.6 -641.8	656.0 894.6	IR OR	4.362 5.948
L 0U 1	27.11	0.0	-107.1	1.00	0.0	1.00	IR OR -586.4 -731.3	732.6 999.0	IR OR	5.473 6.826
U 1L 2	27.96	0.0	-15.5	1.00	46.9	1.00	IR OR -183.5 -228.9	225.7 307.8	IR OR	4.818 6.570
M 3U 2	23.89	0.0	-31.1	1.00	55.8	1.00	IR OR -186.3 -232.3	225.7 307.8	IR OR	4.044 5.514
M 5U 4	26.23	0.0	-36.5	1.00	60.6	1.00	IR OR -184.8 -230.4	225.7 307.8	IR OR	3.725 5.079
L 2M 3	23.89	0.0	-44.8	1.00	0.0	1.00	IR OR -131.9 -164.5	159.7 217.8	IR OR	2.946 3.674
M 3L 4	23.89	0.0	-51.9	1.00	55.2	1.00	IR OR -186.3 -232.3	225.7 307.8	IR OR	4.087 5.573
L 4M 5	26.23	0.0	-38.6	1.00	0.0	1.00	IR OR -130.9 -163.2	159.7 217.8	IR OR	3.388 4.225
M 5L 6	26.23	0.0	-46.3	1.00	58.3	1.00	IR OR -184.8	225.7	IR	3.869

							OR	-230.4	307.8	OR	5.276
U 1L 1	20.00	0.0	0.0	1.00	50.8	1.00	IR	-106.3	127.4	IR	2.507
							OR	-132.6	173.7	OR	3.418
U 2L 2	27.50	0.0	-25.9	1.00	38.3	1.00	IR	-183.9	225.7	IR	5.887
							OR	-229.3	307.8	OR	8.028
U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 4L 4	35.00	0.0	-22.5	1.00	46.8	1.00	IR	-177.9	225.7	IR	4.827
							OR	-221.8	307.8	OR	6.582
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
							OR	-221.8	307.8	OR	99.999
M 3L 3	13.75	0.0	0.0	1.00	51.5	1.00	IR	-107.9	127.4	IR	2.472
							OR	-134.5	173.7	OR	3.370
M 5L 5	17.50	0.0	0.0	1.00	51.5	1.00	IR	-107.0	127.4	IR	2.472
							OR	-133.4	173.7	OR	3.370

MEMBER M 5L 5 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL COMP	+ IMPACT FORCE I.F.	TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	51.5	1.00	IR -107.0 OR -133.4	127.4 173.7	IR 2.472 OR 3.370	116.16 158.41

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	86.6	1.00
L12	0.0	86.6	1.00

 * TRUSS - LIVE LOAD SP-3 *

MaineDOT Legal Configuration 3

MEMBER FORCES AND ALLOWABLE STRESS RATINGS I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE COMP I.F.	TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING	FACTORS
U 1U 2	20.93	0.0	-101.5	1.00	0.0	1.00	IR -484.5 OR -604.2	587.4 801.0	IR 4.774 OR 5.954
U 2U 3	19.90	0.0	-123.8	1.00	0.0	1.00	IR -545.7 OR -680.6	659.7 899.5	IR 4.408 OR 5.497
U 3U 4	19.90	0.0	-123.8	1.00	0.0	1.00	IR -545.7 OR -680.6	659.7 899.5	IR 4.408 OR 5.497
U 4U 5	19.54	0.0	-136.7	1.00	0.0	1.00	IR -606.6 OR -756.4	732.6 999.0	IR 4.438 OR 5.535
U 5U 6	19.54	0.0	-136.7	1.00	0.0	1.00	IR -606.6 OR -756.4	732.6 999.0	IR 4.438 OR 5.535
L 0L 1	18.30	0.0	0.0	1.00	69.6	1.00	IR -309.9 OR -386.5	391.4 533.7	IR 5.623 OR 7.667
L 1L 2	19.54	0.0	0.0	1.00	69.6	1.00	IR -306.3 OR -382.0	391.4 533.7	IR 5.623 OR 7.667

L	2L	3	19.54	0.0	0.0	1.00	129.3	1.00	IR	-432.5	551.8	IR	4.267
									OR	-539.4	752.4	OR	5.818
L	3L	4	19.54	0.0	0.0	1.00	129.3	1.00	IR	-432.5	551.8	IR	4.267
									OR	-539.4	752.4	OR	5.818
L	4L	5	19.54	0.0	0.0	1.00	145.3	1.00	IR	-514.6	656.0	IR	4.514
									OR	-641.8	894.6	OR	6.155
L	5L	6	19.54	0.0	0.0	1.00	145.3	1.00	IR	-514.6	656.0	IR	4.514
									OR	-641.8	894.6	OR	6.155
L	0U	1	27.11	0.0	-103.1	1.00	0.0	1.00	IR	-586.4	732.6	IR	5.687
									OR	-731.3	999.0	OR	7.092
U	1L	2	27.96	0.0	-15.4	1.00	45.2	1.00	IR	-183.5	225.7	IR	4.991
									OR	-228.9	307.8	OR	6.805
M	3U	2	23.89	0.0	-32.4	1.00	53.8	1.00	IR	-186.3	225.7	IR	4.196
									OR	-232.3	307.8	OR	5.722
M	5U	4	26.23	0.0	-35.8	1.00	58.3	1.00	IR	-184.8	225.7	IR	3.873
									OR	-230.4	307.8	OR	5.281
L	2M	3	23.89	0.0	-42.8	1.00	0.0	1.00	IR	-131.9	159.7	IR	3.084
									OR	-164.5	217.8	OR	3.846
M	3L	4	23.89	0.0	-51.9	1.00	53.8	1.00	IR	-186.3	225.7	IR	4.196
									OR	-232.3	307.8	OR	5.722
L	4M	5	26.23	0.0	-36.9	1.00	0.0	1.00	IR	-130.9	159.7	IR	3.547
									OR	-163.2	217.8	OR	4.424
M	5L	6	26.23	0.0	-46.5	1.00	57.7	1.00	IR	-184.8	225.7	IR	3.911
									OR	-230.4	307.8	OR	5.333
U	1L	1	20.00	0.0	0.0	1.00	48.5	1.00	IR	-106.3	127.4	IR	2.627
									OR	-132.6	173.7	OR	3.582
U	2L	2	27.50	0.0	-25.3	1.00	39.8	1.00	IR	-183.9	225.7	IR	5.671
									OR	-229.3	307.8	OR	7.734
U	3M	3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
									OR	-83.0	108.0	OR	99.999
U	4L	4	35.00	0.0	-22.3	1.00	45.8	1.00	IR	-177.9	225.7	IR	4.930
									OR	-221.8	307.8	OR	6.722
U	5M	5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
									OR	-83.0	108.0	OR	99.999
U	6L	6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
									OR	-221.8	307.8	OR	99.999
M	3L	3	13.75	0.0	0.0	1.00	49.2	1.00	IR	-107.9	127.4	IR	2.588
									OR	-134.5	173.7	OR	3.529
M	5L	5	17.50	0.0	0.0	1.00	49.2	1.00	IR	-107.0	127.4	IR	2.588
									OR	-133.4	173.7	OR	3.529

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL COMP	+ IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	49.2	1.00	IR -107.9	127.4	IR 2.588	113.86
					OR -134.5	173.7	OR 3.529	155.27

SUPPORT REACTIONS

SUPPORT D.L. LL+I I.F.

L 0	0.0	83.1	1.00
L12	0.0	83.1	1.00

 * TRUSS - LIVE LOAD SP-4 *

MaineDOT Legal Configuration 4

MEMBER FORCES AND ALLOWABLE STRESS RATINGS
 I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.	ALLOWABLE FORCE COMP	TENS	RATING	FACTORS	
U 1U 2	20.93	0.0	-102.7	1.00	0.0	1.00	IR OR	-484.5 -604.2	587.4 801.0	IR OR	4.718 5.883
U 2U 3	19.90	0.0	-123.5	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	4.418 5.510
U 3U 4	19.90	0.0	-123.5	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	4.418 5.510
U 4U 5	19.54	0.0	-136.1	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	4.458 5.559
U 5U 6	19.54	0.0	-136.1	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	4.458 5.559
L 0L 1	18.30	0.0	0.0	1.00	70.6	1.00	IR OR	-309.9 -386.5	391.4 533.7	IR OR	5.541 7.556
L 1L 2	19.54	0.0	0.0	1.00	70.6	1.00	IR OR	-306.3 -382.0	391.4 533.7	IR OR	5.541 7.556
L 2L 3	19.54	0.0	0.0	1.00	126.5	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	4.361 5.947
L 3L 4	19.54	0.0	0.0	1.00	126.5	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	4.361 5.947
L 4L 5	19.54	0.0	0.0	1.00	144.7	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	4.533 6.182
L 5L 6	19.54	0.0	0.0	1.00	144.7	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	4.533 6.182
L 0U 1	27.11	0.0	-104.6	1.00	0.0	1.00	IR OR	-586.4 -731.3	732.6 999.0	IR OR	5.605 6.990
U 1L 2	27.96	0.0	-16.4	1.00	46.0	1.00	IR OR	-183.5 -228.9	225.7 307.8	IR OR	4.911 6.697
M 3U 2	23.89	0.0	-32.3	1.00	54.9	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	4.111 5.606
M 5U 4	26.23	0.0	-36.9	1.00	59.4	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	3.801 5.183
L 2M 3	23.89	0.0	-41.1	1.00	0.0	1.00	IR OR	-131.9 -164.5	159.7 217.8	IR OR	3.212 4.006
M 3L 4	23.89	0.0	-54.9	1.00	54.9	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	3.392 4.230
L 4M 5	26.23	0.0	-35.4	1.00	0.0	1.00	IR OR	-130.9 -163.2	159.7 217.8	IR OR	3.695 4.608
M 5L 6	26.23	0.0	-48.1	1.00	59.4	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	3.801 5.183
U 1L 1	20.00	0.0	0.0	1.00	46.7	1.00	IR OR	-106.3 -132.6	127.4 173.7	IR OR	2.728 3.720

U 2L 2	27.50	0.0	-25.8	1.00	38.2	1.00	IR	-183.9	225.7	IR	5.912
							OR	-229.3	307.8	OR	8.062
U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 4L 4	35.00	0.0	-22.9	1.00	46.0	1.00	IR	-177.9	225.7	IR	4.909
							OR	-221.8	307.8	OR	6.694
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
							OR	-221.8	307.8	OR	99.999
M 3L 3	13.75	0.0	0.0	1.00	47.3	1.00	IR	-107.9	127.4	IR	2.695
							OR	-134.5	173.7	OR	3.675
M 5L 5	17.50	0.0	0.0	1.00	47.3	1.00	IR	-107.0	127.4	IR	2.695
							OR	-133.4	173.7	OR	3.675

MEMBER M 5L 5 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL COMP	+ IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	47.3	1.00	IR -107.0	127.4	IR	2.695
					OR -133.4	173.7	OR	3.675

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	84.2	1.00
L12	0.0	84.2	1.00

 * TRUSS - LIVE LOAD SP-5 *

MaineDOT Legal Configuration 5

MEMBER FORCES AND ALLOWABLE STRESS RATINGS I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING	FACTORS
U 1U 2	20.93	0.0	-101.4	1.00	0.0	1.00	IR -484.5	587.4	IR	4.780
							OR -604.2	801.0	OR	5.961
U 2U 3	19.90	0.0	-123.3	1.00	0.0	1.00	IR -545.7	659.7	IR	4.426
							OR -680.6	899.5	OR	5.519
U 3U 4	19.90	0.0	-123.3	1.00	0.0	1.00	IR -545.7	659.7	IR	4.426
							OR -680.6	899.5	OR	5.519
U 4U 5	19.54	0.0	-135.7	1.00	0.0	1.00	IR -606.6	732.6	IR	4.471
							OR -756.4	999.0	OR	5.575
U 5U 6	19.54	0.0	-135.7	1.00	0.0	1.00	IR -606.6	732.6	IR	4.471
							OR -756.4	999.0	OR	5.575
L 0L 1	18.30	0.0	0.0	1.00	69.7	1.00	IR -309.9	391.4	IR	5.616
							OR -386.5	533.7	OR	7.658
L 1L 2	19.54	0.0	0.0	1.00	69.7	1.00	IR -306.3	391.4	IR	5.616
							OR -382.0	533.7	OR	7.658
L 2L 3	19.54	0.0	0.0	1.00	127.1	1.00	IR -432.5	551.8	IR	4.340
							OR -539.4	752.4	OR	5.919

L 3L 4	19.54	0.0	0.0	1.00	127.1	1.00	IR	-432.5	551.8	IR	4.340
							OR	-539.4	752.4	OR	5.919
L 4L 5	19.54	0.0	0.0	1.00	144.3	1.00	IR	-514.6	656.0	IR	4.546
							OR	-641.8	894.6	OR	6.199
L 5L 6	19.54	0.0	0.0	1.00	144.3	1.00	IR	-514.6	656.0	IR	4.546
							OR	-641.8	894.6	OR	6.199
L 0U 1	27.11	0.0	-103.2	1.00	0.0	1.00	IR	-586.4	732.6	IR	5.681
							OR	-731.3	999.0	OR	7.084
U 1L 2	27.96	0.0	-15.4	1.00	45.3	1.00	IR	-183.5	225.7	IR	4.984
							OR	-228.9	307.8	OR	6.797
M 3U 2	23.89	0.0	-31.9	1.00	53.9	1.00	IR	-186.3	225.7	IR	4.190
							OR	-232.3	307.8	OR	5.713
M 5U 4	26.23	0.0	-35.6	1.00	58.2	1.00	IR	-184.8	225.7	IR	3.882
							OR	-230.4	307.8	OR	5.293
L 2M 3	23.89	0.0	-40.0	1.00	0.0	1.00	IR	-131.9	159.7	IR	3.298
							OR	-164.5	217.8	OR	4.113
M 3L 4	23.89	0.0	-51.6	1.00	53.9	1.00	IR	-186.3	225.7	IR	4.190
							OR	-232.3	307.8	OR	5.713
L 4M 5	26.23	0.0	-34.5	1.00	0.0	1.00	IR	-130.9	159.7	IR	3.793
							OR	-163.2	217.8	OR	4.730
M 5L 6	26.23	0.0	-46.6	1.00	57.8	1.00	IR	-184.8	225.7	IR	3.902
							OR	-230.4	307.8	OR	5.321
U 1L 1	20.00	0.0	0.0	1.00	45.2	1.00	IR	-106.3	127.4	IR	2.816
							OR	-132.6	173.7	OR	3.840
U 2L 2	27.50	0.0	-25.3	1.00	38.6	1.00	IR	-183.9	225.7	IR	5.845
							OR	-229.3	307.8	OR	7.971
U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 4L 4	35.00	0.0	-22.3	1.00	45.6	1.00	IR	-177.9	225.7	IR	4.947
							OR	-221.8	307.8	OR	6.746
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
							OR	-221.8	307.8	OR	99.999
M 3L 3	13.75	0.0	0.0	1.00	46.0	1.00	IR	-107.9	127.4	IR	2.767
							OR	-134.5	173.7	OR	3.773
M 5L 5	17.50	0.0	0.0	1.00	46.0	1.00	IR	-107.0	127.4	IR	2.767
							OR	-133.4	173.7	OR	3.773

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL COMP	+ IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS		RATING FACTOR	TONS	
0.0	0.0	1.00	46.0	1.00	IR	-107.9	127.4	IR	2.767	121.75
					OR	-134.5	173.7	OR	3.773	166.02

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	83.2	1.00
L12	0.0	83.2	1.00

MEMBER FORCES AND ALLOWABLE STRESS RATINGS
 I.F. = IMPACT FACTOR

MEMBER ID			MEMBER LENGTH	DL FORCE	COMP	LL + I.F.	IMPACT TENS	FORCE I.F.		ALLOWABLE COMP	FORCE TENS		RATING FACTORS
U 1	U 2	20.93	0.0	-92.0	1.00	0.0	1.00	IR OR	-484.5 -604.2	587.4 801.0	IR OR	5.268 6.570	
U 2	U 3	19.90	0.0	-111.1	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	4.913 6.127	
U 3	U 4	19.90	0.0	-111.1	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	4.913 6.127	
U 4	U 5	19.54	0.0	-122.8	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	4.939 6.160	
U 5	U 6	19.54	0.0	-122.8	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	4.939 6.160	
L 0	L 1	18.30	0.0	0.0	1.00	63.0	1.00	IR OR	-309.9 -386.5	391.4 533.7	IR OR	6.211 8.469	
L 1	L 2	19.54	0.0	0.0	1.00	63.0	1.00	IR OR	-306.3 -382.0	391.4 533.7	IR OR	6.211 8.469	
L 2	L 3	19.54	0.0	0.0	1.00	123.3	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	4.475 6.102	
L 3	L 4	19.54	0.0	0.0	1.00	123.3	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	4.475 6.102	
L 4	L 5	19.54	0.0	0.0	1.00	133.8	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	4.902 6.685	
L 5	L 6	19.54	0.0	0.0	1.00	133.8	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	4.902 6.685	
L 0	U 1	27.11	0.0	-93.4	1.00	0.0	1.00	IR OR	-586.4 -731.3	732.6 999.0	IR OR	6.282 7.834	
U 1	L 2	27.96	0.0	-21.8	1.00	41.2	1.00	IR OR	-183.5 -228.9	225.7 307.8	IR OR	5.484 7.478	
M 3	U 2	23.89	0.0	-34.3	1.00	49.7	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	4.545 6.197	
M 5	U 4	26.23	0.0	-35.2	1.00	54.7	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	4.129 5.631	
L 2	M 3	23.89	0.0	-52.2	1.00	0.0	1.00	IR OR	-131.9 -164.5	159.7 217.8	IR OR	2.527 3.151	
M 3	L 4	23.89	0.0	-54.7	1.00	49.7	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	3.402 4.242	
L 4	M 5	26.23	0.0	-45.0	1.00	0.0	1.00	IR OR	-130.9 -163.2	159.7 217.8	IR OR	2.906 3.625	
M 5	L 6	26.23	0.0	-45.0	1.00	54.7	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	4.129 5.631	
U 1	L 1	20.00	0.0	0.0	1.00	59.8	1.00	IR OR	-106.3 -132.6	127.4 173.7	IR OR	2.131 2.906	
U 2	L 2	27.50	0.0	-23.3	1.00	40.6	1.00	IR OR	-183.9 -229.3	225.7 307.8	IR OR	5.555 7.575	

U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 4L 4	35.00	0.0	-21.1	1.00	43.5	1.00	IR	-177.9	225.7	IR	5.189
							OR	-221.8	307.8	OR	7.076
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
							OR	-221.8	307.8	OR	99.999
M 3L 3	13.75	0.0	0.0	1.00	60.1	1.00	IR	-107.9	127.4	IR	2.120
							OR	-134.5	173.7	OR	2.891
M 5L 5	17.50	0.0	0.0	1.00	60.1	1.00	IR	-107.0	127.4	IR	2.120
							OR	-133.4	173.7	OR	2.891

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	60.1	1.00	IR -107.9	127.4	IR 2.120	80.46
					OR -134.5	173.7	OR 2.891	109.72

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	74.9	1.00
L12	0.0	74.9	1.00

 * TRUSS - LIVE LOAD SP-7 *

MaineDOT Legal Configuration 7

MEMBER FORCES AND ALLOWABLE STRESS RATINGS I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	FACTORS
U 1U 2	20.93	0.0	-72.5	1.00	0.0	1.00	IR -484.5	587.4	IR 6.685	
							OR -604.2	801.0	OR 8.336	
U 2U 3	19.90	0.0	-87.3	1.00	0.0	1.00	IR -545.7	659.7	IR 6.248	
							OR -680.6	899.5	OR 7.792	
U 3U 4	19.90	0.0	-87.3	1.00	0.0	1.00	IR -545.7	659.7	IR 6.248	
							OR -680.6	899.5	OR 7.792	
U 4U 5	19.54	0.0	-96.5	1.00	0.0	1.00	IR -606.6	732.6	IR 6.285	
							OR -756.4	999.0	OR 7.837	
U 5U 6	19.54	0.0	-96.5	1.00	0.0	1.00	IR -606.6	732.6	IR 6.285	
							OR -756.4	999.0	OR 7.837	
L 0L 1	18.30	0.0	0.0	1.00	49.6	1.00	IR -309.9	391.4	IR 7.885	
							OR -386.5	533.7	OR 10.753	
L 1L 2	19.54	0.0	0.0	1.00	49.6	1.00	IR -306.3	391.4	IR 7.885	
							OR -382.0	533.7	OR 10.753	
L 2L 3	19.54	0.0	0.0	1.00	97.1	1.00	IR -432.5	551.8	IR 5.684	
							OR -539.4	752.4	OR 7.751	
L 3L 4	19.54	0.0	0.0	1.00	97.1	1.00	IR -432.5	551.8	IR 5.684	
							OR -539.4	752.4	OR 7.751	
L 4L 5	19.54	0.0	0.0	1.00	105.5	1.00	IR -514.6	656.0	IR 6.217	

									OR	-641.8	894.6	OR	8.478
L 5L 6	19.54	0.0	0.0	1.00	105.5	1.00	IR	-514.6	656.0	IR	6.217		
							OR	-641.8	894.6	OR	8.478		
L 0U 1	27.11	0.0	-73.5	1.00	0.0	1.00	IR	-586.4	732.6	IR	7.976		
							OR	-731.3	999.0	OR	9.946		
U 1L 2	27.96	0.0	-18.3	1.00	32.4	1.00	IR	-183.5	225.7	IR	6.958		
							OR	-228.9	307.8	OR	9.489		
M 3U 2	23.89	0.0	-27.7	1.00	39.2	1.00	IR	-186.3	225.7	IR	5.756		
							OR	-232.3	307.8	OR	7.849		
M 5U 4	26.23	0.0	-28.1	1.00	43.3	1.00	IR	-184.8	225.7	IR	5.213		
							OR	-230.4	307.8	OR	7.109		
L 2M 3	23.89	0.0	-42.1	1.00	0.0	1.00	IR	-131.9	159.7	IR	3.131		
							OR	-164.5	217.8	OR	3.904		
M 3L 4	23.89	0.0	-44.0	1.00	39.2	1.00	IR	-186.3	225.7	IR	4.237		
							OR	-232.3	307.8	OR	5.284		
L 4M 5	26.23	0.0	-36.3	1.00	0.0	1.00	IR	-130.9	159.7	IR	3.601		
							OR	-163.2	217.8	OR	4.491		
M 5L 6	26.23	0.0	-35.7	1.00	43.3	1.00	IR	-184.8	225.7	IR	5.213		
							OR	-230.4	307.8	OR	7.109		
U 1L 1	20.00	0.0	0.0	1.00	48.2	1.00	IR	-106.3	127.4	IR	2.644		
							OR	-132.6	173.7	OR	3.606		
U 2L 2	27.50	0.0	-18.4	1.00	32.1	1.00	IR	-183.9	225.7	IR	7.039		
							OR	-229.3	307.8	OR	9.598		
U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999		
							OR	-83.0	108.0	OR	99.999		
U 4L 4	35.00	0.0	-16.7	1.00	34.7	1.00	IR	-177.9	225.7	IR	6.508		
							OR	-221.8	307.8	OR	8.875		
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999		
							OR	-83.0	108.0	OR	99.999		
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999		
							OR	-221.8	307.8	OR	99.999		
M 3L 3	13.75	0.0	0.0	1.00	48.5	1.00	IR	-107.9	127.4	IR	2.627		
							OR	-134.5	173.7	OR	3.582		
M 5L 5	17.50	0.0	0.0	1.00	48.5	1.00	IR	-107.0	127.4	IR	2.627		
							OR	-133.4	173.7	OR	3.582		

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL COMP	+ IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	48.5	1.00	IR -107.9	127.4	IR 2.627	78.02
					OR -134.5	173.7	OR 3.582	106.39

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	59.0	1.00
L12	0.0	59.0	1.00

 * TRUSS - LIVE LOAD SP-8 *

MaineDOT Legal Configuration 8

MEMBER FORCES AND ALLOWABLE STRESS RATINGS
I.F. = IMPACT FACTOR

MEMBER ID		MEMBER LENGTH	DL FORCE	LL COMP	+ I.F.	IMPACT FORCE TENS	I.F.	ALLOWABLE FORCE COMP		TENS	RATING FACTORS	
U 1U	2	20.93	0.0	-45.9	1.00	0.0	1.00	IR OR	-484.5 -604.2	587.4 801.0	IR OR	10.551 13.158
U 2U	3	19.90	0.0	-55.4	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	9.846 12.279
U 3U	4	19.90	0.0	-55.4	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	9.846 12.279
U 4U	5	19.54	0.0	-60.9	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	9.957 12.417
U 5U	6	19.54	0.0	-60.9	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	9.957 12.417
L 0L	1	18.30	0.0	0.0	1.00	31.4	1.00	IR OR	-309.9 -386.5	391.4 533.7	IR OR	12.453 16.982
L 1L	2	19.54	0.0	0.0	1.00	31.4	1.00	IR OR	-306.3 -382.0	391.4 533.7	IR OR	12.453 16.982
L 2L	3	19.54	0.0	0.0	1.00	62.1	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	8.880 12.109
L 3L	4	19.54	0.0	0.0	1.00	62.1	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	8.880 12.109
L 4L	5	19.54	0.0	0.0	1.00	67.3	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	9.749 13.294
L 5L	6	19.54	0.0	0.0	1.00	67.3	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	9.749 13.294
L 0U	1	27.11	0.0	-46.6	1.00	0.0	1.00	IR OR	-586.4 -731.3	732.6 999.0	IR OR	12.597 15.709
U 1L	2	27.96	0.0	-12.5	1.00	20.6	1.00	IR OR	-183.5 -228.9	225.7 307.8	IR OR	10.983 14.977
M 3U	2	23.89	0.0	-18.0	1.00	24.9	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	9.070 12.369
M 5U	4	26.23	0.0	-18.0	1.00	27.6	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	8.193 11.172
L 2M	3	23.89	0.0	-27.0	1.00	0.0	1.00	IR OR	-131.9 -164.5	159.7 217.8	IR OR	4.887 6.094
M 3L	4	23.89	0.0	-28.3	1.00	24.9	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	6.582 8.209
L 4M	5	26.23	0.0	-23.3	1.00	0.0	1.00	IR OR	-130.9 -163.2	159.7 217.8	IR OR	5.621 7.009
M 5L	6	26.23	0.0	-22.8	1.00	27.6	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	8.193 11.172
U 1L	1	20.00	0.0	0.0	1.00	31.1	1.00	IR OR	-106.3 -132.6	127.4 173.7	IR OR	4.100 5.591
U 2L	2	27.50	0.0	-11.7	1.00	20.8	1.00	IR OR	-183.9 -229.3	225.7 307.8	IR OR	10.851 14.796
U 3M	3	17.50	0.0	0.0	1.00	0.0	1.00	IR OR	-66.6 -83.0	79.2 108.0	IR OR	99.999 99.999
U 4L	4	35.00	0.0	-10.6	1.00	22.2	1.00	IR	-177.9	225.7	IR	10.171

								OR	-221.8	307.8	OR	13.869
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999	
							OR	-83.0	108.0	OR	99.999	
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999	
							OR	-221.8	307.8	OR	99.999	
M 3L 3	13.75	0.0	0.0	1.00	31.1	1.00	IR	-107.9	127.4	IR	4.100	
							OR	-134.5	173.7	OR	5.591	
M 5L 5	17.50	0.0	0.0	1.00	31.1	1.00	IR	-107.0	127.4	IR	4.100	
							OR	-133.4	173.7	OR	5.591	

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	31.1	1.00	IR	-107.9	127.4	IR 4.100
					OR	-134.5	173.7	OR 5.591

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	37.3	1.00
L12	0.0	37.3	1.00

This is not applicable because it is based off of LFD and dead loads are not included.

R A T I N G S U M M A R Y									
MEMBER: TRUSS									
LOAD		ALLOWABLE	STRESS	RATING	LOAD	FACTOR	RATING		
		FACTOR	TONS	MEMBER		FACTOR	TONS	MEMBER	
SP-1	IR (CRITICAL)	2.91	145.5	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	3.97	198.4	M 5L 5	*****	*****	*****	*****	*****
SP-2	IR (CRITICAL)	2.47	116.2	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	3.37	158.4	M 5L 5	*****	*****	*****	*****	*****
SP-3	IR (CRITICAL)	2.59	113.9	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	3.53	155.3	M 5L 5	*****	*****	*****	*****	*****
SP-4	IR (CRITICAL)	2.70	118.6	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	3.68	161.7	M 5L 5	*****	*****	*****	*****	*****
SP-5	IR (CRITICAL)	2.77	121.7	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	3.77	166.0	M 5L 5	*****	*****	*****	*****	*****
SP-6	IR (CRITICAL)	2.12	80.5	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	2.89	109.7	M 5L 5	*****	*****	*****	*****	*****
SP-7	IR (CRITICAL)	2.63	78.0	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	3.58	106.4	M 5L 5	*****	*****	*****	*****	*****
SP-8	IR (CRITICAL)	4.10	76.7	M 5L 5	*****	*****	*****	*****	*****
	OR (CRITICAL)	5.59	104.6	M 5L 5	*****	*****	*****	*****	*****
NOTE: LOAD FACTOR RATING WAS NOT PERFORMED BECAUSE ADDITIONAL TRUSS MEMBER PROPERTIES WERE NOT INPUT.									

BAR7 v7.14.0.1 PROGRAM WAS EXECUTED COMPLETELY AND SUCCESSFULLY.

CL-625-ONT TRUCK BAR7 OUTPUT

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PROGRAM P4353000
VERSION 7.14.0.1

LAST UPDATED 01/05/2015

09/28/2017 11:08
DOCUMENTATION 10/2014

INPUT: ... awaska Bridge\Truss\Truss CL-625-ONT Truck.dat

MADE BY: SMZ 9/28/17
CHECKED BY: JMA 10/6/17
BACKCHECKED BY: SMZ 10/8/17

PROJECT IDENTIFICATION

STRUCTURE ID - - MADAWASKA TRUSS

BRG TYPE	SLC LEV	LIVE LANS	OUT- PUT	IMP FACT	GAGE DIST	PASS DIST	FAT- IGUE	CONC DECK	SPEC	RE- DIST	DIR	S OVER FACTOR	END PAN
TTT		D	1 7	1.00	6.0	4.0	N			N		0.00	

SKEW
CORR PONY
HYB FACTOR TRUSS PDF
0.000 Y

BRIDGE CROSS SECTION AND LOADING

Includes Sidewalk (does not affect rating)

DECK WIDTH	OVERHANG OR SPACING	CL OF GIRDER OR TRUSS TO CURB	ROADWAY WIDTH	DISTRIBUTION SHEAR	FACTORS MOMENT DEFLECT
32.21	0.00	1.66	20.66	1.010	1.010 0.000

SLAB THICKNESS	HAUNCH	DEAD LOADS DL1	DL2	F'C	N	SYMMETRY
0.00	0.00	0.000	0.000	0.000	8.	Y

LIVE LOAD LOCATION	NO. OF PANELS	END COND.	CORS	HINGE AT	TEMP CHANGE	END BRG.
L	12	P		L 0	0.	L

STRINGER DL1	FLOORBEAM DL1	UNIT WEIGHT DECK CONCRETE	GUSSET ANALYSIS	PATCH LOAD ANALYSIS
0.000	0.000	0.00		

UNSYMM PIER
SUPPORT

SPAN LENGTHS (SIMPLE)

SPAN # 1
LENGTH 232.00

TRAFFIC LANE LOCATIONS

LANE #	1	2	3	4	5	6
DIST						
WIDTH						
% LL						

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	18.30	Y	20.00	0.00	0.00	1
2	19.54	Y	27.50	0.00	0.00	6
3	19.54	Y	17.50	13.75	0.00	8
4	19.54	Y	35.00	0.00	0.00	11

5	19.54	Y	17.50	17.50	0.00	8
6	19.54	Y	35.00	0.00	0.00	11

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD

TRUSS MEMBER PROPERTIES

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0L 1	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 1L 2	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2L 3	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 3L 4	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4L 5	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 5L 6	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER	GROSS AREA	NET AREA	MOMENT OF	UNBRACED LENGTH	FLANGE	FAT	GROSS AREA

ID	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
U 1U 2	35.60	0.00	1176.0	30.0	0.00	0.00	0.00	0.00		60.0	35.60
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	2413.					

MEMBER U 1U 2: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 2U 3	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	2715.					

MEMBER U 2U 3: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 3U 4	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	2715.					

MEMBER U 3U 4: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 4U 5	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	3018.					

MEMBER U 4U 5: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 5U 6	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	3018.					

MEMBER U 5U 6: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.

THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE
NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 1	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 2L 2	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 3M 3	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 3L 3	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 4L 4	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 5M 5	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 5L 5	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 6L 6	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0U 1	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 3018.		

MEMBER L 0U 1: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 2	13.68	10.62	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 118.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2M 3	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 65.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3U 2	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3L 4	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4M 5	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC		MOMENT OF INERTIA IYC		TORSION INERTIA JXY		MOMENT OF INERTIA IY		

	0.0	0.00	0.00	0.00	0.000	65.					
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5U 4	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	0.00	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF		TORSION	MOMENT			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA		INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY		IY	131.			
		0.00	0.00	0.00	0.000						
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5L 6	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	0.00	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF		TORSION	MOMENT			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA		INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY		IY	131.			
		0.00	0.00	0.00	0.000						

SPECIAL LIVE LOADING 1 CL-625-ONT Truck Only

LANE LOADING

NUMBER	3%	UNIFORM	CONC	CONC					MAX
OF	INCR	LANE	LOAD	LOAD	GAGE	PASSING	VARY		AXLE
AXLES		LOAD	MOMENT	SHEAR	DISTANCE	DISTANCE	LAST		DIST
5		0.000	0.000	0.000	6.0	4.0			0.0

TRUCK LOAD

AXLE			AXLE			AXLE			AXLE		
NO.	LOAD	DIST	NO.	LOAD	DIST	NO.	LOAD	DIST	NO.	LOAD	DIST
1	11.24	11.80	2	31.47	3.90	3	31.47	21.60	4	39.34	21.60
5	26.97	0.00									

DEFAULT VALUES

SLC		GAGE	PASSING		END	UNIT	END	GUSSET
LEVEL	LANES	DISTANCE	DISTANCE	CORS	COND	WEIGHT	BRG	PLATE
I	---	---	---	S	---	DECK	LOC	FU
						150.0	-	---

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+++++
+
+   T R U S S   A N A L Y S I S   +
+
+++++

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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES
 TRUSS TRUSS
 FORCE DEFLECTION
 1.014(2) 1.000(2)

BAR7 calculated distribution factor.

Slightly conservative to PB's 1.01 factor. —→

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

NOTE: THE COMPRESSION CAPACITY OF THE CORRESPONDING TOP CHORDS

AND VERTICAL CHORDS AT EACH SPECIFIED FLOORBEAM LOCATION
MAY NOT BE MODIFIED BECAUSE THIS IS NOT A PONY TRUSS OR
THE LATERAL STABILITY ANALYSIS IS NOT REQUESTED.

* TRUSS - LIVE LOAD SP-1 *

CL-625-ONT Truck Only
(Not to combine with lane load)

MEMBER FORCES AND ALLOWABLE STRESS RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE				ALLOWABLE FORCE		RATING		FACTORS	
			COMP	I.F.	TENS	I.F.	COMP	TENS				
U 1U 2	20.93	0.0	-155.9	1.00	0.0	1.00	IR OR	-484.5 -604.2	587.4 801.0	IR OR	3.108 3.876	
U 2U 3	19.90	0.0	-187.4	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	2.911 3.631	
U 3U 4	19.90	0.0	-187.4	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	2.911 3.631	
U 4U 5	19.54	0.0	-202.5	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	2.995 3.735	
U 5U 6	19.54	0.0	-202.5	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	2.995 3.735	
L 0L 1	18.30	0.0	0.0	1.00	104.4	1.00	IR OR	-309.9 -386.5	391.4 533.7	IR OR	3.750 5.114	
L 1L 2	19.54	0.0	0.0	1.00	104.4	1.00	IR OR	-306.3 -382.0	391.4 533.7	IR OR	3.750 5.114	
L 2L 3	19.54	0.0	0.0	1.00	179.6	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	3.072 4.189	
L 3L 4	19.54	0.0	0.0	1.00	179.6	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	3.072 4.189	
L 4L 5	19.54	0.0	0.0	1.00	211.8	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	3.097 4.223	
L 5L 6	19.54	0.0	0.0	1.00	211.8	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	3.097 4.223	
L 0U 1	27.11	0.0	-154.6	1.00	0.0	1.00	IR OR	-586.4 -731.3	732.6 999.0	IR OR	3.793 4.731	
U 1L 2	27.96	0.0	-21.4	1.00	67.3	1.00	IR OR	-183.5 -228.9	225.7 307.8	IR OR	3.353 4.572	
M 3U 2	23.89	0.0	-40.4	1.00	81.0	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	2.786 3.799	
M 5U 4	26.23	0.0	-50.8	1.00	86.8	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	2.602 3.548	
L 2M 3	23.89	0.0	-53.8	1.00	0.0	1.00	IR OR	-131.9 -164.5	159.7 217.8	IR OR	2.451 3.056	
M 3L 4	23.89	0.0	-69.5	1.00	78.4	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	2.878 3.924	
L 4M 5	26.23	0.0	-46.4	1.00	0.0	1.00	IR OR	-130.9 -163.2	159.7 217.8	IR OR	2.819 3.515	
M 5L 6	26.23	0.0	-63.6	1.00	81.6	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	2.766 3.772	
U 1L 1	20.00	0.0	0.0	1.00	61.5	1.00	IR	-106.3	127.4	IR	2.071	

									OR	-132.6	173.7	OR	2.823
U	2L	2	27.50	0.0	-36.8	1.00	48.7	1.00	IR	-183.9	225.7	IR	4.633
									OR	-229.3	307.8	OR	6.318
U	3M	3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
									OR	-83.0	108.0	OR	99.999
U	4L	4	35.00	0.0	-32.0	1.00	64.9	1.00	IR	-177.9	225.7	IR	3.478
									OR	-221.8	307.8	OR	4.743
U	5M	5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
									OR	-83.0	108.0	OR	99.999
U	6L	6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
									OR	-221.8	307.8	OR	99.999
M	3L	3	13.75	0.0	0.0	1.00	62.0	1.00	IR	-107.9	127.4	IR	2.056
									OR	-134.5	173.7	OR	2.804
M	5L	5	17.50	0.0	0.0	1.00	62.0	1.00	IR	-107.0	127.4	IR	2.056
									OR	-133.4	173.7	OR	2.804

MEMBER M 5L 5 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	62.0	1.00	IR -107.0	127.4	IR	2.056 144.43
					OR -133.4	173.7	OR	2.804 196.95

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	125.3	1.00
L12	0.0	125.3	1.00

This is not applicable because it is based off of LFD and dead loads are not included.

++++++ + + R A T I N G S U M M A R Y + + ++++++						
MEMBER: TRUSS						
		ALLOWABLE STRESS RATING		LOAD FACTOR RATING		
LOAD		FACTOR	TONS	MEMBER	FACTOR	TONS
SP-1 IR (CRITICAL)		2.06	144.4	M 5L 5	*****	*****
OR (CRITICAL)		2.80	197.0	M 5L 5	*****	*****
NOTE: LOAD FACTOR RATING WAS NOT PERFORMED BECAUSE ADDITIONAL TRUSS MEMBER PROPERTIES WERE NOT INPUT.						

BAR7 v7.14.0.1 PROGRAM WAS EXECUTED COMPLETELY AND SUCCESSFULLY.

CL-625-ONT LANE LOAD - TRUCK BAR7 OUTPUT

330409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

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PROGRAM P4353000
VERSION 7.14.0.1

LAST UPDATED 01/05/2015

09/28/2017 11:04
DOCUMENTATION 10/2014

INPUT: ... e\Truss\Truss CL-625-ONT Lane Load - Truck.dat

MADE BY: SMZ 9/28/17
CHECKED BY: JMA 10/6/17
BACKCHECKED BY: SMZ 10/8/17

PROJECT IDENTIFICATION

STRUCTURE ID - - MADAWASKA TRUSS

BRG TYPE	SLC LEV	LIVE LANS	OUT- PUT	IMP FACT	GAGE DIST	PASS DIST	FAT- IGUE	CONC DECK	SPEC	RE- DIST	DIR	S OVER FACTOR	END PAN
TTT		D	1 7	1.00	6.0	4.0	N			N		0.00	

SKEW
CORR PONY
HYB FACTOR TRUSS PDF
0.000 Y

BRIDGE CROSS SECTION AND LOADING

Includes Sidewalk (does not affect rating)

DECK WIDTH	OVERHANG OR SPACING	CL OF GIRDER OR TRUSS TO CURB	ROADWAY WIDTH	DISTRIBUTION SHEAR	FACTORS MOMENT DEFLECT
32.21	0.00	1.66	20.66	1.010	1.010 0.000

SLAB THICKNESS	HAUNCH	DEAD LOADS DL1	DL2	F'C	N	SYMMETRY
0.00	0.00	0.000	0.000	0.000	8.	Y

LIVE LOAD LOCATION	NO. OF PANELS	END COND.	CORS	HINGE AT	TEMP CHANGE	END BRG.
L	12	P		L 0	0.	L

STRINGER DL1	FLOORBEAM DL1	UNIT WEIGHT DECK CONCRETE	GUSSET ANALYSIS	PATCH LOAD ANALYSIS
0.000	0.000	0.00		

UNSYMM PIER
SUPPORT

SPAN LENGTHS (SIMPLE)

SPAN # 1
LENGTH 232.00

TRAFFIC LANE LOCATIONS

LANE #	1	2	3	4	5	6
DIST						
WIDTH						
% LL						

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	18.30	Y	20.00	0.00	0.00	1
2	19.54	Y	27.50	0.00	0.00	6
3	19.54	Y	17.50	13.75	0.00	8
4	19.54	Y	35.00	0.00	0.00	11

5	19.54	Y	17.50	17.50	0.00	8
6	19.54	Y	35.00	0.00	0.00	11

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD

TRUSS MEMBER PROPERTIES

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0L 1	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 1L 2	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2L 3	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 3L 4	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4L 5	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 5L 6	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER	GROSS AREA	NET AREA	MOMENT OF	UNBRACED LENGTH	FLANGE	FAT	GROSS AREA

ID	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
U 1U 2	35.60	0.00	1176.0	30.0	0.00	0.00	0.00	0.00		60.0	35.60

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	2413.

MEMBER U 1U 2: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 2U 3	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	2715.

MEMBER U 2U 3: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 3U 4	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	2715.

MEMBER U 3U 4: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 4U 5	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	3018.

MEMBER U 4U 5: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 5U 6	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	3018.

MEMBER U 5U 6: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.

THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE
NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 1	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 2L 2	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 3M 3	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 3L 3	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 4L 4	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 5M 5	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 5L 5	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 6L 6	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0U 1	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 3018.		

MEMBER L 0U 1: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 2	13.68	10.62	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 118.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2M 3	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 65.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3U 2	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3L 4	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4M 5	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC		MOMENT OF INERTIA IYC		TORSION INERTIA JXY		MOMENT OF INERTIA IY		

	0.0	0.00	0.00	0.00	0.000	65.					
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5U 4	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	CAT	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF		TORSION		MOMENT		
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA		INERTIA		OF		
	0.0	LENGTH	SXC	IYC	JXY		IY				
		0.00	0.00	0.00	0.000		131.				
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5L 6	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	CAT	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF		TORSION		MOMENT		
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA		INERTIA		OF		
	0.0	LENGTH	SXC	IYC	JXY		IY				
		0.00	0.00	0.00	0.000		131.				

SPECIAL LIVE LOADING 1 CL-625-ONT Truck For Lane

LANE LOADING

NUMBER	3%	UNIFORM	CONC	CONC					MAX
OF	INCR	LANE	LOAD	LOAD	GAGE	PASSING	VARY		AXLE
AXLES		LOAD	MOMENT	SHEAR	DISTANCE	DISTANCE	LAST		DIST
5		0.000	0.000	0.000	6.0	4.0			0.0

TRUCK LOAD

AXLE			AXLE			AXLE			AXLE		
NO.	LOAD	DIST	NO.	LOAD	DIST	NO.	LOAD	DIST	NO.	LOAD	DIST
1	8.99	11.80	2	25.17	3.90	3	25.17	21.60	4	31.47	21.60
5	21.58	0.00									

DEFAULT VALUES

SLC		GAGE	PASSING		END	UNIT	END	GUSSET
LEVEL	LANES	DISTANCE	DISTANCE	CORS	COND	WEIGHT	BRG	PLATE
I	---	---	---	S	---	DECK	LOC	FU
						150.0	-	---

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+++++
+
+   T R U S S   A N A L Y S I S   +
+
+++++

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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES
 TRUSS TRUSS
 FORCE DEFLECTION
 1.014(2) 1.000(2)

BAR7 calculated distribution factor.

Slightly conservative to PB's 1.01 factor. —→

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

NOTE: THE COMPRESSION CAPACITY OF THE CORRESPONDING TOP CHORDS

AND VERTICAL CHORDS AT EACH SPECIFIED FLOORBEAM LOCATION
MAY NOT BE MODIFIED BECAUSE THIS IS NOT A PONY TRUSS OR
THE LATERAL STABILITY ANALYSIS IS NOT REQUESTED.

* TRUSS - LIVE LOAD SP-1 *

CL-625-ONT Truck For Lane
(Combine with Lane Load)

MEMBER FORCES AND ALLOWABLE STRESS RATINGS
I.F. = IMPACT FACTOR

MEMBER ID		MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE				ALLOWABLE FORCE		RATING FACTORS		
				COMP	I.F.	TENS	I.F.		COMP	TENS		
U 1	U 2	20.93	0.0	-124.7	1.00	0.0	1.00	IR OR	-484.5 -604.2	587.4 801.0	IR OR	3.886 4.846
U 2	U 3	19.90	0.0	-149.9	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	3.640 4.539
U 3	U 4	19.90	0.0	-149.9	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	3.640 4.539
U 4	U 5	19.54	0.0	-162.0	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	3.745 4.670
U 5	U 6	19.54	0.0	-162.0	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	3.745 4.670
L 0	L 1	18.30	0.0	0.0	1.00	83.5	1.00	IR OR	-309.9 -386.5	391.4 533.7	IR OR	4.688 6.393
L 1	L 2	19.54	0.0	0.0	1.00	83.5	1.00	IR OR	-306.3 -382.0	391.4 533.7	IR OR	4.688 6.393
L 2	L 3	19.54	0.0	0.0	1.00	143.7	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	3.841 5.238
L 3	L 4	19.54	0.0	0.0	1.00	143.7	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	3.841 5.238
L 4	L 5	19.54	0.0	0.0	1.00	169.4	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	3.872 5.280
L 5	L 6	19.54	0.0	0.0	1.00	169.4	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	3.872 5.280
L 0	U 1	27.11	0.0	-123.7	1.00	0.0	1.00	IR OR	-586.4 -731.3	732.6 999.0	IR OR	4.742 5.914
U 1	L 2	27.96	0.0	-17.1	1.00	53.9	1.00	IR OR	-183.5 -228.9	225.7 307.8	IR OR	4.191 5.716
M 3	U 2	23.89	0.0	-32.3	1.00	64.8	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	3.483 4.749
M 5	U 4	26.23	0.0	-40.6	1.00	69.4	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	3.253 4.435
L 2	M 3	23.89	0.0	-43.1	1.00	0.0	1.00	IR OR	-131.9 -164.5	159.7 217.8	IR OR	3.064 3.821
M 3	L 4	23.89	0.0	-55.6	1.00	62.7	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	3.597 4.906
L 4	M 5	26.23	0.0	-37.1	1.00	0.0	1.00	IR OR	-130.9 -163.2	159.7 217.8	IR OR	3.524 4.395
M 5	L 6	26.23	0.0	-50.9	1.00	65.3	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	3.458 4.716
U 1	L 1	20.00	0.0	0.0	1.00	49.2	1.00	IR	-106.3	127.4	IR	2.589

									OR	-132.6	173.7	OR	3.530
U	2L	2	27.50	0.0	-29.5	1.00	39.0	1.00	IR	-183.9	225.7	IR	5.793
									OR	-229.3	307.8	OR	7.899
U	3M	3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
									OR	-83.0	108.0	OR	99.999
U	4L	4	35.00	0.0	-25.6	1.00	51.9	1.00	IR	-177.9	225.7	IR	4.348
									OR	-221.8	307.8	OR	5.930
U	5M	5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
									OR	-83.0	108.0	OR	99.999
U	6L	6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
									OR	-221.8	307.8	OR	99.999
M	3L	3	13.75	0.0	0.0	1.00	49.5	1.00	IR	-107.9	127.4	IR	2.571
									OR	-134.5	173.7	OR	3.506
M	5L	5	17.50	0.0	0.0	1.00	49.5	1.00	IR	-107.0	127.4	IR	2.571
									OR	-133.4	173.7	OR	3.506

MEMBER M 3L 3 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	0.0	1.00	49.5	1.00	IR -107.9	127.4	IR 2.571	144.45
					OR -134.5	173.7	OR 3.506	196.98

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	100.2	1.00
L12	0.0	100.2	1.00

++++++ + + R A T I N G S U M M A R Y + + ++++++						
MEMBER: TRUSS						
LOAD	ALLOWABLE STRESS	RATING	LOAD	FACTOR	RATING	
SP-1	IR (CRITICAL)	2.57	144.4	M 5L 5	*****	*****
	OR (CRITICAL)	3.51	197.0	M 5L 5	*****	*****
NOTE: LOAD FACTOR RATING WAS NOT PERFORMED BECAUSE ADDITIONAL TRUSS MEMBER PROPERTIES WERE NOT INPUT.						

BAR7 v7.14.0.1 PROGRAM WAS EXECUTED COMPLETELY AND SUCCESSFULLY.

This is not applicable because it is based off of LFD and dead loads are not included and it is not combined with lane load.

CL-625-ONT LANE LOAD - LANE BAR7 OUTPUT

330409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

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USE OF THESE MATERIALS IS STRICTLY PROHIBITED.

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PROGRAM P4353000
VERSION 7.14.0.1

LAST UPDATED 01/05/2015

09/28/2017 11:06
DOCUMENTATION 10/2014

INPUT: ... ge\Truss\Truss CL-625-ONT Lane Load - Lane.dat

MADE BY: SMZ 9/28/17
CHECKED BY: JMA 10/6/17
BACKCHECKED BY: SMZ 10/8/17

PROJECT IDENTIFICATION

STRUCTURE ID - - MADAWASKA TRUSS

BRG TYPE	SLC LEV	LIVE LANS	OUT- PUT	IMP FACT	GAGE DIST	PASS DIST	FAT- IGUE	CONC DECK	SPEC	RE- DIST	DIR	S OVER FACTOR	END PAN
TTT		D	1 7	1.00	6.0	4.0	N			N		0.00	

SKEW
CORR PONY
HYB FACTOR TRUSS PDF
0.000 Y

BRIDGE CROSS SECTION AND LOADING

Includes Sidewalk (does not affect rating)

DECK WIDTH	OVERHANG OR SPACING	CL OF GIRDER OR TRUSS TO CURB	ROADWAY WIDTH	DISTRIBUTION SHEAR	FACTORS MOMENT DEFLECT
32.21	0.00	1.66	20.66	1.010	1.010 0.000

SLAB THICKNESS	HAUNCH	DEAD LOADS DL1	DL2	F'C	N	SYMMETRY
0.00	0.00	0.000	0.000	0.000	8.	Y

LIVE LOAD LOCATION	NO. OF PANELS	END COND.	CORS	HINGE AT	TEMP CHANGE	END BRG.
L	12	P		L 0	0.	L

STRINGER DL1	FLOORBEAM DL1	UNIT WEIGHT DECK CONCRETE	GUSSET ANALYSIS	PATCH LOAD ANALYSIS
0.000	0.000	0.00		

UNSYMM PIER
SUPPORT

SPAN LENGTHS (SIMPLE)

SPAN # 1
LENGTH 232.00

TRAFFIC LANE LOCATIONS

LANE #	1	2	3	4	5	6
DIST						
WIDTH						
% LL						

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	18.30	Y	20.00	0.00	0.00	1
2	19.54	Y	27.50	0.00	0.00	6
3	19.54	Y	17.50	13.75	0.00	8
4	19.54	Y	35.00	0.00	0.00	11

5	19.54	Y	17.50	17.50	0.00	8
6	19.54	Y	35.00	0.00	0.00	11

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD

TRUSS MEMBER PROPERTIES

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0L 1	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 1L 2	23.72	18.37	299.0	30.0	0.00	0.00	0.00	0.00		60.0	23.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	910.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2L 3	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 3L 4	33.44	25.80	429.0	30.0	0.00	0.00	0.00	0.00		60.0	33.44

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1252.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4L 5	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 5L 6	39.76	30.59	514.0	30.0	0.00	0.00	0.00	0.00		60.0	39.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	1467.

MEMBER	GROSS AREA	NET AREA	MOMENT OF	UNBRACED LENGTH	FLANGE	FAT	GROSS AREA

ID	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
U 1U 2	35.60	0.00	1176.0	30.0	0.00	0.00	0.00	0.00		60.0	35.60
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	2413.					

MEMBER U 1U 2: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 2U 3	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	2715.					

MEMBER U 2U 3: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 3U 4	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	39.98	0.00	1292.0	30.0	0.00	0.00	0.00	0.00		60.0	39.98
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	2715.					

MEMBER U 3U 4: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 4U 5	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	3018.					

MEMBER U 4U 5: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER	GROSS	NET	MOMENT	UNBRACED							GROSS
ID	AREA	AREA	OF	LENGTH			FLANGE	FAT			AREA
U 5U 6	COMPR	TENS	INERTIA	FY	L	ECC	WIDTH	C	CAT	FU	TENS
	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT	OF			
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA	INERTIA			
	0.0	LENGTH	SXC	IYC	JXY	IY					
		0.00	0.00	0.00	0.000	3018.					

MEMBER U 5U 6: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.

THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE
NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 1	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 2L 2	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 3M 3	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 3L 3	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		
U 4L 4	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		
U 5M 5	4.80	3.61	215.0	30.0	0.00	0.00	0.00	0.00		60.0	4.80
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 13.		
M 5L 5	7.72	5.51	333.0	30.0	0.00	0.00	0.00	0.00		60.0	7.72
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 21.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 6L 6	13.68	9.87	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 0U 1	44.40	0.00	1415.0	30.0	0.00	0.00	0.00	0.00		60.0	44.40
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 3018.		

MEMBER L 0U 1: EITHER THE GROSS AREA COMPRESSION OR THE NET AREA TENSION IS NOT ENTERED.
THE PROGRAM WILL ASSUME THAT BOTH VALUES ARE THE SAME AS THE NON-ZERO ONE.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 1L 2	13.68	10.62	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 118.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 2M 3	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 65.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3U 2	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
M 3L 4	13.68	10.50	596.0	30.0	0.00	0.00	0.00	0.00		60.0	13.68
	DEPTH 0.0	UNSUPP FLANGE LENGTH 0.00	SECTION MODULUS SXC 0.00		MOMENT OF INERTIA IYC 0.00		TORSION INERTIA JXY 0.000		MOMENT OF INERTIA IY 131.		

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L 4M 5	9.68	7.33	431.0	30.0	0.00	0.00	0.00	0.00		60.0	9.68
	DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC		MOMENT OF INERTIA IYC		TORSION INERTIA JXY		MOMENT OF INERTIA IY		

	0.0	0.00	0.00	0.00	0.000	65.					
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5U 4	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	CAT	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT				
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA				
	0.0	LENGTH	SXC	IYC	JXY	IY	131.				
		0.00	0.00	0.00	0.000						
MEMBER	GROSS	NET	MOMENT	UNBRACED						GROSS	
ID	AREA	AREA	OF	LENGTH						AREA	
M 5L 6	COMPR	TENS	INERTIA	FY	L	ECC	FLANGE	C	FAT	FU	TENS
	13.68	10.45	596.0	30.0	0.00	0.00	WIDTH	0.00	CAT	60.0	13.68
		UNSUPP	SECTION	MOMENT	OF	TORSION	MOMENT				
	DEPTH	FLANGE	MODULUS	INERTIA	INERTIA	INERTIA	INERTIA				
	0.0	LENGTH	SXC	IYC	JXY	IY	131.				
		0.00	0.00	0.00	0.000						

SPECIAL LIVE LOADING 1 CL-625-ONT Lane Load

LANE LOADING

NUMBER	3%	UNIFORM	CONC	CONC	GAGE	PASSING	VARY	MAX
OF	INCR	LANE	LOAD	LOAD	DISTANCE	DISTANCE	LAST	AXLE
AXLES		LOAD	MOMENT	SHEAR				DIST
2		0.617	0.000	0.000	6.0	4.0		0.0

TRUCK LOAD

AXLE	LOAD	DIST	AXLE	LOAD	DIST	AXLE	LOAD	DIST	AXLE	LOAD	DIST
NO.			NO.			NO.			NO.		
1	0.00	5.00	2	0.00	0.00						

DEFAULT VALUES

SLC		GAGE	PASSING		END	UNIT	END	GUSSET
LEVEL	LANES	DISTANCE	DISTANCE	CORS	COND	WEIGHT	BRG	PLATE
I	---	---	---	S	---	DECK	LOC	FU
						150.0	-	---

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+++++
+
+   T R U S S   A N A L Y S I S   +
+
+++++

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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES
 TRUSS TRUSS
 FORCE DEFLECTION
 1.014(2) 1.000(2)

BAR7 calculated distribution factor.

Slightly conservative to PB's 1.01 factor. —→

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

NOTE: THE COMPRESSION CAPACITY OF THE CORRESPONDING TOP CHORDS AND VERTICAL CHORDS AT EACH SPECIFIED FLOORBEAM LOCATION

MAY NOT BE MODIFIED BECAUSE THIS IS NOT A PONY TRUSS OR
THE LATERAL STABILITY ANALYSIS IS NOT REQUESTED.

* TRUSS - LIVE LOAD SP-1 *

CL-625-ONT Lane Load
(Combine with Truck Load)

MEMBER FORCES AND ALLOWABLE STRESS RATINGS
I.F. = IMPACT FACTOR

MEMBER ID		MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE				ALLOWABLE FORCE		RATING FACTORS		
				COMP	I.F.	TENS	I.F.		COMP	TENS		
U 1U 2	20.93	0.0	-89.5L	1.00	0.0	1.00	IR OR	-484.5 -604.2	587.4 801.0	IR OR	5.413 6.751	
U 2U 3	19.90	0.0	-108.5L	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	5.028 6.270	
U 3U 4	19.90	0.0	-108.5L	1.00	0.0	1.00	IR OR	-545.7 -680.6	659.7 899.5	IR OR	5.028 6.270	
U 4U 5	19.54	0.0	-120.2L	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	5.045 6.291	
U 5U 6	19.54	0.0	-120.2L	1.00	0.0	1.00	IR OR	-606.6 -756.4	732.6 999.0	IR OR	5.045 6.291	
L 0L 1	18.30	0.0	0.0	1.00	61.2L	1.00	IR OR	-309.9 -386.5	391.4 533.7	IR OR	6.400 8.727	
L 1L 2	19.54	0.0	0.0	1.00	61.2L	1.00	IR OR	-306.3 -382.0	391.4 533.7	IR OR	6.400 8.727	
L 2L 3	19.54	0.0	0.0	1.00	92.2L	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	5.982 8.157	
L 3L 4	19.54	0.0	0.0	1.00	92.2L	1.00	IR OR	-432.5 -539.4	551.8 752.4	IR OR	5.982 8.157	
L 4L 5	19.54	0.0	0.0	1.00	113.4L	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	5.784 7.888	
L 5L 6	19.54	0.0	0.0	1.00	113.4L	1.00	IR OR	-514.6 -641.8	656.0 894.6	IR OR	5.784 7.888	
L 0U 1	27.11	0.0	-90.6L	1.00	0.0	1.00	IR OR	-586.4 -731.3	732.6 999.0	IR OR	6.474 8.073	
U 1L 2	27.96	0.0	-3.4L	1.00	35.5L	1.00	IR OR	-183.5 -228.9	225.7 307.8	IR OR	6.365 8.680	
M 3U 2	23.89	0.0	-9.0L	1.00	37.2L	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	6.070 8.278	
M 5U 4	26.23	0.0	-14.4L	1.00	32.7L	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	6.903 9.414	
L 2M 3	23.89	0.0	-10.6L	1.00	0.0	1.00	IR OR	-131.9 -164.5	159.7 217.8	IR OR	12.422 15.491	
M 3L 4	23.89	0.0	-16.9L	1.00	34.5L	1.00	IR OR	-186.3 -232.3	225.7 307.8	IR OR	6.551 8.934	
L 4M 5	26.23	0.0	-9.2L	1.00	0.0	1.00	IR OR	-130.9 -163.2	159.7 217.8	IR OR	14.287 17.816	
M 5L 6	26.23	0.0	-20.5L	1.00	29.7L	1.00	IR OR	-184.8 -230.4	225.7 307.8	IR OR	7.603 10.367	
U 1L 1	20.00	0.0	0.0	1.00	11.8L	1.00	IR OR	-106.3 -132.6	127.4 173.7	IR OR	10.764 14.678	

U 2L 2	27.50	0.0	-16.6L	1.00	12.0L	1.00	IR	-183.9	225.7	IR	11.065
							OR	-229.3	307.8	OR	13.798
U 3M 3	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 4L 4	35.00	0.0	-11.6L	1.00	19.9L	1.00	IR	-177.9	225.7	IR	11.369
							OR	-221.8	307.8	OR	15.503
U 5M 5	17.50	0.0	0.0	1.00	0.0	1.00	IR	-66.6	79.2	IR	99.999
							OR	-83.0	108.0	OR	99.999
U 6L 6	35.00	0.0	0.0	1.00	0.0	1.00	IR	-177.9	225.7	IR	99.999
							OR	-221.8	307.8	OR	99.999
M 3L 3	13.75	0.0	0.0	1.00	12.2L	1.00	IR	-107.9	127.4	IR	10.422
							OR	-134.5	173.7	OR	14.212
M 5L 5	17.50	0.0	0.0	1.00	12.2L	1.00	IR	-107.0	127.4	IR	10.422
							OR	-133.4	173.7	OR	14.212

MEMBER U 3U 4 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + COMP	IMPACT I.F.	FORCE TENS	I.F.	ALLOWABLE COMP	FORCE TENS	RATING FACTOR	TONS
0.0	-108.5L	1.00	0.0	1.00	IR	-545.7	659.7	IR 5.028 0.00
					OR	-680.6	899.5	OR 6.270 0.00

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
L 0	0.0	72.6 L	1.00
L12	0.0	72.6 L	1.00

+++++

R A T I N G S U M M A R Y

+++++

MEMBER: TRUSS

		ALLOWABLE STRESS RATING		LOAD FACTOR RATING	
LOAD		FACTOR	TONS	FACTOR	TONS
SP-1	IR (CRITICAL)	5.03	0.0	*****	*****
	OR (CRITICAL)	6.27	0.0	*****	*****

NOTE: LOAD FACTOR RATING WAS NOT PERFORMED BECAUSE ADDITIONAL TRUSS MEMBER PROPERTIES WERE NOT INPUT.

BAR7 v7.14.0.1 PROGRAM WAS EXECUTED COMPLETELY AND SUCCESSFULLY.

This is not applicable because it is based off of LFD and dead loads are not included and it is not combined with truck load.

RATING CALCULATIONS

PB DEAD LOAD & HL-93 MEMBER FORCES



Project: Maine North Truss Inspections
 Task: Bridge 2399 - Madawaska
 Client: Maine

Made by: AMC
 Date: 11/20/2012
 Checked by: BDH
 Date: 11/21/2012

Dead and Live Load Forces

No Stress Sheet Available in Contract Drawings

	Member		Unfactored Dead Load			Unfactored Live Load - HL- 93 (+impact)
	Contract	TRAP	Contract Drawings	TRAP	% Difference	
Lower Chord	L0L1	L1L2		133.3		141.08
	L1L2	L2L3		133.3		141.08
	L2L3	L3L4		201.1		239.54
	L3L4	L4L5		201.1		239.54
	L4L5	L5L6		249.6		278.17
	L5L6	L6L7		249.6		278.17
	L6L5	L7L8		249.6		278.17
	L5L4	L8L9		249.6		278.17
	L4L3	L9L10		201.1		239.54
	L3L2	L10L11		201.1		239.54
	L2L1	L11L12		133.3		141.08
	L1L0	L12L13		133.3		141.08
Upper Chord	U1U2	U2U3		-195.9		-206.01
	U2U3	U3U4		-239		-248.13
	U3U4	U4U5		-239		-248.13
	U4U5	U5U6		-265.3		-273.78
	U5U6	U6U7		-265.3		-273.78
	U6U5	U7U8		-265.3		-273.78
	U5U4	U8U9		-265.3		-273.78
	U4U3	U9U10		-239		-248.13
	U3U2	U10U11		-239		-248.13
	U2U1	U11U12		-195.9		-206.01
Verticals	U1L1 T	L2U2 T		18.5		69.92
	U2L2 T	L3U3 T		0		57.76
	U2L2 C	L3U3 C		-17.3		-45.83
	U3M3	A4U4		0		0
	M3L3 T	L4A4 T		19.1		70.87
	U4L4 T	L5U5 T		10.9		72.65
	U4L4 C	L5U5 C		0		-37.72
	U5M5	A6U6		0		0
	M5L5 T	L6A6 T		19.6		70.85
	U6L6	L7U7		0		0
	M5L5 T	L8A8 T		19.6		70.85
	U5M5	A8U8		0		0
	U4L4 T	L9U9 T		10.9		72.64
	U4L4 C	L9U9 C		0		-37.74
	M3L3 T	L10A10 T		19.1		70.87
	U3M3	A10U10		0		0
	U2L2 T	L11U11 T		0		57.77
	U2L2 C	L11U11 C		-17.4		-45.88
	U1L1 T	L12U12 T		18.5		69.92



Project: Maine North Truss Inspections
 Task: Bridge 2399 - Madawaska
 Client: Maine

Made by: AMC
 Date: 11/20/2012
 Checked by: BDH
 Date: 11/21/2012

Dead and Live Load Forces

No Stress Sheet Available in Contract Drawings

	Member		Unfactored Dead Load			Unfactored Live Load - HL- 93 (+impact)
	Contract	TRAP	Contract Drawings	TRAP	% Difference	
Diagonals	L0U1 C	L1U2 C		-197.5		-209.06
	U1L2 T	L3U2 T		70.9		87.51
	U1L2 C	L3U2 C		0		-25.22
	L2M3 T	L3A4 T		0		0
	L2M3 C	L3A4 C		-22.3		-61.59
	M3U2 T	A4U3 T		63.5		99.51
	M3U2 C	A4U3 C		0		-47.51
	M3L4 T	L5A4 T		41.2		96.66
	M3L4 C	L5A4 C		0		-81.87
	L4M5 T	L5A6 T		0		0
	L4M5 C	L5A6 C		-20		-53.1
	M5U4 T	A6U5 T		41		100.44
	M5U4 C	A6U5 C		0		-57.09
	M5L6 T	L7A6 T		21		97.34
	M5L6 C	L7A6 C		0		-75.66
	M5L6 T	L7A8 T		21		97.34
	M5L6 C	L7A8 C		0		-75.66
	M5U4 T	A8U9 T		41		100.44
	M5U4 C	A8U9 C		0		-57.09
	L4M5 T	L9A8 T		0		0
	L4M5 C	L9A8 C		-20		-53.1
	M3L4 T	L9A10 T		41.2		96.73
	M3L4 C	L9A10 C		0		-81.86
	M3U2 T	A10U11 T		63.5		99.52
	M3U2 C	A10U11 C		0		-47.52
	L2M3 T	L11A10 T		0		0
	L2M3 C	L11A10 C		-22.3		-61.58
	U1L2 T	L11U12 T		70.9		87.51
	U1L2 C	L11U12 C		0		-25.22
	L0U1 C	L13U12 C		-197.5		-209.06

PB MEMBER CAPACITIES & RATINGS



Project: Maine North Truss Inspections
 Task: Bridge 2399 - Madawaska
 Client: Maine

Made by: AMC
 Date: 11/20/2012
 Checked by: BDH
 Date: 11/21/2012

Capacity and Ratings from TRAP

Sidewalk Truss

	Member		Trap		
	Contract	TRAP	Capacity	Inventory	Operating
Lower Chord	L0L1	L1L2	524	1.45	1.87
	L1L2	L2L3	524	1.45	1.87
	L2L3	L3L4	735	1.15	1.50
	L3L4	L4L5	735	1.15	1.50
	L4L5	L5L6	872	1.15	1.49
	L5L6	L6L7	872	1.15	1.49
	L6L5	L7L8	872	1.15	1.49
	L5L4	L8L9	872	1.15	1.49
	L4L3	L9L10	735	1.15	1.50
	L3L2	L10L11	735	1.15	1.50
	L2L1	L11L12	524	1.45	1.87
	L1L0	L12L13	524	1.45	1.87
Upper Chord	U1U2	U2U3	-784	1.50	1.94
	U2U3	U3U4	-884	1.35	1.75
	U3U4	U4U5	-884	1.35	1.75
	U4U5	U5U6	-982	1.36	1.76
	U5U6	U6U7	-982	1.36	1.76
	U6U5	U7U8	-982	1.36	1.76
	U5U4	U8U9	-982	1.36	1.76
	U4U3	U9U10	-884	1.35	1.75
	U3U2	U10U11	-884	1.35	1.75
	U2U1	U11U12	-784	1.50	1.94
Verticals	U1L1 T	L2U2 T	157	1.09	1.42
	U2L2 T	L3U3 T	281	2.78	3.61
	U2L2 C	L3U3 C	-239	2.71	3.52
	U3M3	A4U4	-	-	-
	M3L3 T	L4A4 T	157	1.07	1.39
	U4L4 T	L5U5 T	281	2.11	2.73
	U4L4 C	L5U5 C	-201	3.05	3.96
	U5M5	A6U6	-	-	-
	M5L5 T	L6A6 T	157	1.07	1.39
	U6L6	L7U7	-	-	-
	M5L5 T	L8A8 T	157	1.07	1.39
	U5M5	A8U8	-	-	-
	U4L4 T	L9U9 T	281	2.11	2.73
	U4L4 C	L9U9 C	-201	3.05	3.95
	M3L3 T	L10A10 T	157	1.07	1.39
	U3M3	A10U10	-	-	-
	U2L2 T	L11U11 T	281	2.78	3.61
	U2L2 C	L11U11 C	-239	2.71	3.51
	U1L1 T	L12U12 T	157	1.09	1.42



Project: Maine North Truss Inspections
 Task: Bridge 2399 - Madawaska
 Client: Maine

Made by: AMC
 Date: 11/20/2012
 Checked by: BDH
 Date: 11/21/2012

Capacity and Ratings from TRAP

Diagonals	L0U1 C	L1U2 C	-945	1.91	2.47
	U1L2 T	L3U2 T	303	1.40	1.81
	U1L2 C	L3U2 C	-229	5.19	6.73
	L2M3 T	L3A4 T	-	-	-
	L2M3 C	L3A4 C	-165	1.28	1.65
	M3U2 T	A4U3 T	299	1.26	1.64
	M3U2 C	A4U3 C	-256	3.08	3.99
	M3L4 T	L5A4 T	299	1.46	1.90
	M3L4 C	L5A4 C	-256	1.79	2.32
	L4M5 T	L5A6 T	-	-	-
	L4M5 C	L5A6 C	-156	1.41	1.82
	M5U4 T	A6U5 T	298	1.40	1.82
	M5U4 C	A6U5 C	-245	2.46	3.18
	M5L6 T	L7A6 T	298	1.59	2.07
	M5L6 C	L7A6 C	-245	1.85	2.40
	M5L6 T	L7A8 T	298	1.59	2.07
	M5L6 C	L7A8 C	-245	1.85	2.40
	M5U4 T	A8U9 T	298	1.40	1.82
	M5U4 C	A8U9 C	-245	2.46	3.18
	L4M5 T	L9A8 T	-	-	-
	L4M5 C	L9A8 C	-156	1.41	1.82
	M3L4 T	L9A10 T	299	1.46	1.90
	M3L4 C	L9A10 C	-256	1.79	2.32
	M3U2 T	A10U11 T	299	1.26	1.64
	M3U2 C	A10U11 C	-256	3.08	3.99
	L2M3 T	L11A10 T	-	-	-
	L2M3 C	L11A10 C	-166	1.28	1.66
	U1L2 T	L11U12 T	303	1.40	1.81
	U1L2 C	L11U12 C	-229	5.19	6.73
	L0U1 C	L13U12 C	-945	1.91	2.47

Min. Inv.
1.07

Min. Op.
1.39

HNTB LOAD RATING BREAKDOWN

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation
Vehicle being Evaluated is the **HL-93** Live loads taken from PB rating

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL})(inv) **1.75**
Live load Factor (γ_{LL}) (Opr) **1.35**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	HL-93+(IM)			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Lower Chord	L0 - L1	NA	Tens.	524 Kips	133.3 Kips	141.08 Kips	0.95	448.02 Kips	166.63 Kips	246.89 Kips	190.46 Kips	1.13	1.47
	L1 - L2	NA	Tens.	524 Kips	133.3 Kips	141.08 Kips	0.95	448.02 Kips	166.63 Kips	246.89 Kips	190.46 Kips	1.13	1.47
	L2 - L3	NA	Tens.	735 Kips	201.1 Kips	239.54 Kips	0.95	628.43 Kips	251.38 Kips	419.20 Kips	323.38 Kips	0.89	1.16
	L3 - L4	NA	Tens.	735 Kips	201.1 Kips	239.54 Kips	0.95	628.43 Kips	251.38 Kips	419.20 Kips	323.38 Kips	0.89	1.16
	L4 - L5	NA	Tens.	872 Kips	249.6 Kips	278.17 Kips	0.95	745.56 Kips	312.00 Kips	486.80 Kips	375.53 Kips	0.89	1.15
	L5 - L6	NA	Tens.	872 Kips	249.6 Kips	278.17 Kips	0.95	745.56 Kips	312.00 Kips	486.80 Kips	375.53 Kips	0.89	1.15
	L6 - L5	NA	Tens.	872 Kips	249.6 Kips	278.17 Kips	0.95	745.56 Kips	312.00 Kips	486.80 Kips	375.53 Kips	0.89	1.15
	L5 - L4	NA	Tens.	872 Kips	249.6 Kips	278.17 Kips	0.95	745.56 Kips	312.00 Kips	486.80 Kips	375.53 Kips	0.89	1.15
	L4 - L3	NA	Tens.	735 Kips	201.1 Kips	239.54 Kips	0.95	628.43 Kips	251.38 Kips	419.20 Kips	323.38 Kips	0.89	1.16
	L3 - L2	NA	Tens.	735 Kips	201.1 Kips	239.54 Kips	0.95	628.43 Kips	251.38 Kips	419.20 Kips	323.38 Kips	0.89	1.16
	L2 - L1	NA	Tens.	524 Kips	133.3 Kips	141.08 Kips	0.95	448.02 Kips	166.63 Kips	246.89 Kips	190.46 Kips	1.13	1.47
	L1 - L0	NA	Tens.	524 Kips	133.3 Kips	141.08 Kips	0.95	448.02 Kips	166.63 Kips	246.89 Kips	190.46 Kips	1.13	1.47

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	HL-93+(IM)			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Upper Chord	U1 - U2	NA	Comp.	-784 Kips	-195.9 Kips	-206.01 Kips	1.00	-705.60 Kips	-244.88 Kips	-360.52 Kips	-278.11 Kips	1.27	1.65
	U2 - U3	NA	Comp.	-884 Kips	-239.0 Kips	-248.13 Kips	1.00	-795.60 Kips	-298.75 Kips	-434.23 Kips	-334.98 Kips	1.14	1.48
	U3 - U4	NA	Comp.	-884 Kips	-239.0 Kips	-248.13 Kips	1.00	-795.60 Kips	-298.75 Kips	-434.23 Kips	-334.98 Kips	1.14	1.48
	U4 - U5	NA	Comp.	-982 Kips	-265.3 Kips	-273.78 Kips	1.00	-883.80 Kips	-331.63 Kips	-479.12 Kips	-369.60 Kips	1.15	1.49
	U5 - U6	NA	Comp.	-982 Kips	-265.3 Kips	-273.78 Kips	1.00	-883.80 Kips	-331.63 Kips	-479.12 Kips	-369.60 Kips	1.15	1.49
	U6 - U5	NA	Comp.	-982 Kips	-265.3 Kips	-273.78 Kips	1.00	-883.80 Kips	-331.63 Kips	-479.12 Kips	-369.60 Kips	1.15	1.49
	U5 - U4	NA	Comp.	-982 Kips	-265.3 Kips	-273.78 Kips	1.00	-883.80 Kips	-331.63 Kips	-479.12 Kips	-369.60 Kips	1.15	1.49
	U4 - U3	NA	Comp.	-884 Kips	-239.0 Kips	-248.13 Kips	1.00	-795.60 Kips	-298.75 Kips	-434.23 Kips	-334.98 Kips	1.14	1.48
	U3 - U2	NA	Comp.	-884 Kips	-239.0 Kips	-248.13 Kips	1.00	-795.60 Kips	-298.75 Kips	-434.23 Kips	-334.98 Kips	1.14	1.48
	U2 - U1	NA	Comp.	-784 Kips	-195.9 Kips	-206.01 Kips	1.00	-705.60 Kips	-244.88 Kips	-360.52 Kips	-278.11 Kips	1.27	1.65

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation
Vehicle being Evaluated is the **HL-93** Live loads taken from PB rating

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL})(inv) **1.75**
Live load Factor (γ_{LL})(Opr) **1.35**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_R R_n \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	HL-93+(IM)			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Verticals	U1 - L1	NA	Tens.	157 Kips	18.5 Kips	69.92 Kips	0.95	134.24 Kips	23.13 Kips	122.36 Kips	94.39 Kips	0.90	1.17
	U2 - L2	NA	Tens.	281 Kips	0.0 Kips	57.76 Kips	0.95	240.26 Kips	0.00 Kips	101.08 Kips	77.98 Kips	2.37	3.08
	U2 - L2	NA	Comp.	-239 Kips	-17.3 Kips	-45.83 Kips	0.95	-204.35 Kips	-21.63 Kips	-80.20 Kips	-61.87 Kips	2.27	2.95
	U3 - M3	NA		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M3 - L3	NA	Tens.	157 Kips	19.1 Kips	70.87 Kips	0.95	134.24 Kips	23.88 Kips	124.02 Kips	95.67 Kips	0.88	1.15
	U4 - L4	NA	Tens.	281 Kips	10.9 Kips	72.65 Kips	0.95	240.26 Kips	13.63 Kips	127.14 Kips	98.08 Kips	1.78	2.31
	U4 - L4	NA	Comp.	-201 Kips	0.0 Kips	-37.72 Kips	0.95	-171.86 Kips	0.00 Kips	-66.01 Kips	-50.92 Kips	2.60	3.37
	U5 - M5	NA		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M5 - L5	NA	Tens.	157 Kips	19.6 Kips	70.85 Kips	0.95	134.24 Kips	24.50 Kips	123.99 Kips	95.65 Kips	0.88	1.14
	U6 - L6	NA		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M5 - L5	NA	Tens.	157 Kips	19.6 Kips	70.85 Kips	0.95	134.24 Kips	24.50 Kips	123.99 Kips	95.65 Kips	0.88	1.14
	U5 - M5	NA		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	U4 - L4	NA	Tens.	281 Kips	10.9 Kips	72.64 Kips	0.95	240.26 Kips	13.63 Kips	127.12 Kips	98.06 Kips	1.78	2.31
	U4 - L4	NA	Comp.	-201 Kips	0.0 Kips	-37.74 Kips	0.95	-171.86 Kips	0.00 Kips	-66.05 Kips	-50.95 Kips	2.60	3.37
	M3 - L3	NA	Tens.	157 Kips	19.1 Kips	70.87 Kips	0.95	134.24 Kips	23.88 Kips	124.02 Kips	95.67 Kips	0.88	1.15
	U3 - M3	NA		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	U2 - L2	NA	Tens.	281 Kips	0.0 Kips	57.77 Kips	0.95	240.26 Kips	0.00 Kips	101.10 Kips	77.99 Kips	2.37	3.08
	U2 - L2	NA	Comp.	-239 Kips	-17.4 Kips	-45.88 Kips	0.95	-204.35 Kips	-21.75 Kips	-80.29 Kips	-61.94 Kips	2.27	2.94
	U1 - L1	NA	Tens.	157 Kips	18.5 Kips	69.92 Kips	0.95	134.24 Kips	23.13 Kips	122.36 Kips	94.39 Kips	0.90	1.17

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation
Vehicle being Evaluated is the **HL-93** Live loads taken from PB rating

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL})(inv) **1.75**
Live load Factor (γ_{LL}) (Opr) **1.35**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	HL-93+(IM)			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Diagonals	L0 - U1	NA	Comp.	-945 Kips	-197.5 Kips	-209.06 Kips	0.95	-807.98 Kips	-246.88 Kips	-365.86 Kips	-282.23 Kips	1.53	1.98
	U1 - L2	NA	Tens.	303 Kips	70.9 Kips	87.51 Kips	0.95	259.07 Kips	88.63 Kips	153.14 Kips	118.14 Kips	1.11	1.44
	U1 - L2	NA	Comp.	-229 Kips	0.0 Kips	-25.22 Kips	0.95	-195.80 Kips	0.00 Kips	-44.14 Kips	-34.05 Kips	4.43	5.75
	L2 - M3	NA	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L2 - M3	NA	Comp.	-165 Kips	-22.3 Kips	-61.59 Kips	0.95	-141.08 Kips	-27.88 Kips	-107.78 Kips	-83.15 Kips	1.05	1.36
	M3 - U2	NA	Tens.	299 Kips	63.5 Kips	99.51 Kips	1.00	269.10 Kips	79.38 Kips	174.14 Kips	134.34 Kips	1.08	1.41
	M3 - U2	NA	Comp.	-256 Kips	0.0 Kips	-47.51 Kips	1.00	-230.40 Kips	0.00 Kips	-83.14 Kips	-64.14 Kips	2.77	3.59
	M3 - L4	NA	Tens.	299 Kips	41.2 Kips	96.66 Kips	0.95	255.65 Kips	51.50 Kips	169.16 Kips	130.49 Kips	1.20	1.56
	M3 - L4	NA	Comp.	-256 Kips	0.0 Kips	-81.87 Kips	0.95	-218.88 Kips	0.00 Kips	-143.27 Kips	-110.52 Kips	1.52	1.98
	L4 - M5	NA	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L4 - M5	NA	Comp.	-156 Kips	-20.0 Kips	-53.10 Kips	0.95	-133.38 Kips	-25.00 Kips	-92.93 Kips	-71.69 Kips	1.16	1.51
	M5 - U4	NA	Tens.	298 Kips	41.0 Kips	100.44 Kips	1.00	268.20 Kips	51.25 Kips	175.77 Kips	135.59 Kips	1.23	1.59
	M5 - U4	NA	Comp.	-245 Kips	0.0 Kips	-57.09 Kips	1.00	-220.50 Kips	0.00 Kips	-99.91 Kips	-77.07 Kips	2.20	2.86
	M5 - L6	NA	Tens.	298 Kips	21.0 Kips	97.34 Kips	0.95	254.79 Kips	26.25 Kips	170.35 Kips	131.41 Kips	1.34	1.73
	M5 - L6	NA	Comp.	-245 Kips	0.0 Kips	-75.66 Kips	0.95	-209.48 Kips	0.00 Kips	-132.41 Kips	-102.14 Kips	1.58	2.05
	M5 - L6	NA	Tens.	298 Kips	21.0 Kips	97.34 Kips	0.95	254.79 Kips	26.25 Kips	170.35 Kips	131.41 Kips	1.34	1.73
	M5 - L6	NA	Comp.	-245 Kips	0.0 Kips	-75.66 Kips	0.95	-209.48 Kips	0.00 Kips	-132.41 Kips	-102.14 Kips	1.58	2.05
	M5 - U4	NA	Tens.	298 Kips	41.0 Kips	100.44 Kips	1.00	268.20 Kips	51.25 Kips	175.77 Kips	135.59 Kips	1.23	1.59
	M5 - U4	NA	Comp.	-245 Kips	0.0 Kips	-57.09 Kips	1.00	-220.50 Kips	0.00 Kips	-99.91 Kips	-77.07 Kips	2.20	2.86
	L4 - M5	NA	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L4 - M5	NA	Comp.	-156 Kips	-20.0 Kips	-53.10 Kips	0.95	-133.38 Kips	-25.00 Kips	-92.93 Kips	-71.69 Kips	1.16	1.51
	M3 - L4	NA	Tens.	299 Kips	41.2 Kips	96.73 Kips	0.95	255.65 Kips	51.50 Kips	169.28 Kips	130.59 Kips	1.20	1.56
	M3 - L4	NA	Comp.	-256 Kips	0.0 Kips	-81.86 Kips	0.95	-218.88 Kips	0.00 Kips	-143.26 Kips	-110.51 Kips	1.52	1.98
	M3 - U2	NA	Tens.	299 Kips	63.5 Kips	99.52 Kips	1.00	269.10 Kips	79.38 Kips	174.16 Kips	134.35 Kips	1.08	1.41
	M3 - U2	NA	Comp.	-256 Kips	0.0 Kips	-47.52 Kips	1.00	-230.40 Kips	0.00 Kips	-83.16 Kips	-64.15 Kips	2.77	3.59
	L2 - M3	NA	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L2 - M3	NA	Comp.	-166 Kips	-22.3 Kips	-61.58 Kips	0.95	-141.93 Kips	-27.88 Kips	-107.77 Kips	-83.13 Kips	1.05	1.37
	U1 - L2	NA	Tens.	303 Kips	70.9 Kips	87.51 Kips	0.95	259.07 Kips	88.63 Kips	153.14 Kips	118.14 Kips	1.11	1.44
	U1 - L2	NA	Comp.	-229 Kips	0.0 Kips	-25.22 Kips	0.95	-195.80 Kips	0.00 Kips	-44.14 Kips	-34.05 Kips	4.43	5.75
	L0 - U1	NA	Comp.	-945 Kips	-197.5 Kips	-209.06 Kips	0.95	-807.98 Kips	-246.88 Kips	-365.86 Kips	-282.23 Kips	1.53	1.98

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-1**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	78.20 Kips	0.95	448.02 Kips	166.63 Kips	135.21 Kips	2.08
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	78.20 Kips	0.95	448.02 Kips	166.63 Kips	135.21 Kips	2.08
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	130.80 Kips	0.95	628.43 Kips	251.38 Kips	226.15 Kips	1.66
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	130.80 Kips	0.95	628.43 Kips	251.38 Kips	226.15 Kips	1.66
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	155.40 Kips	0.95	745.56 Kips	312.00 Kips	268.69 Kips	1.61
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	155.40 Kips	0.95	745.56 Kips	312.00 Kips	268.69 Kips	1.61
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	155.40 Kips	0.95	745.56 Kips	312.00 Kips	268.69 Kips	1.61
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	155.40 Kips	0.95	745.56 Kips	312.00 Kips	268.69 Kips	1.61
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	130.80 Kips	0.95	628.43 Kips	251.38 Kips	226.15 Kips	1.66
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	130.80 Kips	0.95	628.43 Kips	251.38 Kips	226.15 Kips	1.66
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	78.20 Kips	0.95	448.02 Kips	166.63 Kips	135.21 Kips	2.08
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	78.20 Kips	0.95	448.02 Kips	166.63 Kips	135.21 Kips	2.08

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-113.30 Kips	1.00	-705.60 Kips	-244.88 Kips	-195.90 Kips	2.35
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-135.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-234.80 Kips	2.11
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-135.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-234.80 Kips	2.11
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-147.40 Kips	1.00	-883.80 Kips	-331.63 Kips	-254.85 Kips	2.16
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-147.40 Kips	1.00	-883.80 Kips	-331.63 Kips	-254.85 Kips	2.16
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-147.40 Kips	1.00	-883.80 Kips	-331.63 Kips	-254.85 Kips	2.16
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-147.40 Kips	1.00	-883.80 Kips	-331.63 Kips	-254.85 Kips	2.16
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-135.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-234.80 Kips	2.11
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-135.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-234.80 Kips	2.11
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-113.30 Kips	1.00	-705.60 Kips	-244.88 Kips	-195.90 Kips	2.35

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
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Vehicle being Evaluated is the **Maine Legal Load-1**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	43.50 Kips	0.95	134.24 Kips	23.13 Kips	75.21 Kips	1.47
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	36.80 Kips	0.95	240.26 Kips	0.00 Kips	63.63 Kips	3.77
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-28.20 Kips	0.95	-204.35 Kips	-21.63 Kips	-48.76 Kips	3.74
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	43.80 Kips	0.95	134.24 Kips	23.88 Kips	75.73 Kips	1.45
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	48.60 Kips	0.95	240.26 Kips	13.63 Kips	84.03 Kips	2.69
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-24.70 Kips	0.95	-171.86 Kips	0.00 Kips	-42.71 Kips	4.02
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	43.80 Kips	0.95	134.24 Kips	24.50 Kips	75.73 Kips	1.44
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	43.80 Kips	0.95	134.24 Kips	24.50 Kips	75.73 Kips	1.44
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	48.60 Kips	0.95	240.26 Kips	13.63 Kips	84.03 Kips	2.69
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-24.70 Kips	0.95	-171.86 Kips	0.00 Kips	-42.71 Kips	4.02
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	43.80 Kips	0.95	134.24 Kips	23.88 Kips	75.73 Kips	1.45
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	36.80 Kips	0.95	240.26 Kips	0.00 Kips	63.63 Kips	3.77
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-28.20 Kips	0.95	-204.35 Kips	-21.75 Kips	-48.76 Kips	3.74
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	43.50 Kips	0.95	134.24 Kips	23.13 Kips	75.21 Kips	1.47

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

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Vehicle being Evaluated is the **Maine Legal Load-1**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-115.80 Kips	0.95	-807.98 Kips	-246.88 Kips	-200.22 Kips	2.80
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	50.70 Kips	0.95	259.07 Kips	88.63 Kips	87.66 Kips	1.94
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-16.20 Kips	0.95	-195.80 Kips	0.00 Kips	-28.01 Kips	6.99
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-38.00 Kips	0.95	-141.08 Kips	-27.88 Kips	-65.70 Kips	1.72
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	60.10 Kips	1.00	269.10 Kips	79.38 Kips	103.91 Kips	1.82
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-30.20 Kips	1.00	-230.40 Kips	0.00 Kips	-52.22 Kips	4.41
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	60.10 Kips	0.95	255.65 Kips	51.50 Kips	103.91 Kips	1.96
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-55.00 Kips	0.95	-218.88 Kips	0.00 Kips	-95.10 Kips	2.30
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-32.80 Kips	0.95	-133.38 Kips	-25.00 Kips	-56.71 Kips	1.91
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	64.10 Kips	1.00	268.20 Kips	51.25 Kips	110.83 Kips	1.95
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-38.50 Kips	1.00	-220.50 Kips	0.00 Kips	-66.57 Kips	3.31
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	64.10 Kips	0.95	254.79 Kips	26.25 Kips	110.83 Kips	2.06
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-51.30 Kips	0.95	-209.48 Kips	0.00 Kips	-88.70 Kips	2.36
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	64.10 Kips	0.95	254.79 Kips	26.25 Kips	110.83 Kips	2.06
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-51.30 Kips	0.95	-209.48 Kips	0.00 Kips	-88.70 Kips	2.36
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	64.10 Kips	1.00	268.20 Kips	51.25 Kips	110.83 Kips	1.95
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-38.50 Kips	1.00	-220.50 Kips	0.00 Kips	-66.57 Kips	3.31
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-32.80 Kips	0.95	-133.38 Kips	-25.00 Kips	-56.71 Kips	1.91
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	60.10 Kips	0.95	255.65 Kips	51.50 Kips	103.91 Kips	1.96
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-55.00 Kips	0.95	-218.88 Kips	0.00 Kips	-95.10 Kips	2.30
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	60.10 Kips	1.00	269.10 Kips	79.38 Kips	103.91 Kips	1.82
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-30.20 Kips	1.00	-230.40 Kips	0.00 Kips	-52.22 Kips	4.41
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-38.00 Kips	0.95	-141.93 Kips	-27.88 Kips	-65.70 Kips	1.73
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	50.70 Kips	0.95	259.07 Kips	88.63 Kips	87.66 Kips	1.94
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-16.20 Kips	0.95	-195.80 Kips	0.00 Kips	-28.01 Kips	6.99
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-115.80 Kips	0.95	-807.98 Kips	-246.88 Kips	-200.22 Kips	2.80

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading. Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-2**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	72.30 Kips	0.95	448.02 Kips	166.63 Kips	125.01 Kips	2.25
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	72.30 Kips	0.95	448.02 Kips	166.63 Kips	125.01 Kips	2.25
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	132.10 Kips	0.95	628.43 Kips	251.38 Kips	228.40 Kips	1.65
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	132.10 Kips	0.95	628.43 Kips	251.38 Kips	228.40 Kips	1.65
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	150.40 Kips	0.95	745.56 Kips	312.00 Kips	260.04 Kips	1.66
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	150.40 Kips	0.95	745.56 Kips	312.00 Kips	260.04 Kips	1.66
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	150.40 Kips	0.95	745.56 Kips	312.00 Kips	260.04 Kips	1.66
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	150.40 Kips	0.95	745.56 Kips	312.00 Kips	260.04 Kips	1.66
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	132.10 Kips	0.95	628.43 Kips	251.38 Kips	228.40 Kips	1.65
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	132.10 Kips	0.95	628.43 Kips	251.38 Kips	228.40 Kips	1.65
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	72.30 Kips	0.95	448.02 Kips	166.63 Kips	125.01 Kips	2.25
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	72.30 Kips	0.95	448.02 Kips	166.63 Kips	125.01 Kips	2.25

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-106.80 Kips	1.00	-705.60 Kips	-244.88 Kips	-184.66 Kips	2.49
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-129.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-224.42 Kips	2.21
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-129.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-224.42 Kips	2.21
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-142.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-246.38 Kips	2.24
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-142.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-246.38 Kips	2.24
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-142.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-246.38 Kips	2.24
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-142.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-246.38 Kips	2.24
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-129.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-224.42 Kips	2.21
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-129.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-224.42 Kips	2.21
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-106.80 Kips	1.00	-705.60 Kips	-244.88 Kips	-184.66 Kips	2.49

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-2**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	50.80 Kips	0.95	134.24 Kips	23.13 Kips	87.83 Kips	1.26
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	38.30 Kips	0.95	240.26 Kips	0.00 Kips	66.22 Kips	3.62
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-25.90 Kips	0.95	-204.35 Kips	-21.63 Kips	-44.78 Kips	4.08
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	51.50 Kips	0.95	134.24 Kips	23.88 Kips	89.04 Kips	1.23
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	46.80 Kips	0.95	240.26 Kips	13.63 Kips	80.92 Kips	2.80
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.50 Kips	0.95	-171.86 Kips	0.00 Kips	-38.90 Kips	4.41
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	51.50 Kips	0.95	134.24 Kips	24.50 Kips	89.04 Kips	1.23
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	51.50 Kips	0.95	134.24 Kips	24.50 Kips	89.04 Kips	1.23
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	46.80 Kips	0.95	240.26 Kips	13.63 Kips	80.92 Kips	2.80
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.50 Kips	0.95	-171.86 Kips	0.00 Kips	-38.90 Kips	4.41
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	51.50 Kips	0.95	134.24 Kips	23.88 Kips	89.04 Kips	1.23
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	38.30 Kips	0.95	240.26 Kips	0.00 Kips	66.22 Kips	3.62
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-25.90 Kips	0.95	-204.35 Kips	-21.75 Kips	-44.78 Kips	4.07
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	50.80 Kips	0.95	134.24 Kips	23.13 Kips	87.83 Kips	1.26

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-2**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-107.10 Kips	0.95	-807.98 Kips	-246.88 Kips	-185.18 Kips	3.03
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	46.90 Kips	0.95	259.07 Kips	88.63 Kips	81.09 Kips	2.10
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-15.50 Kips	0.95	-195.80 Kips	0.00 Kips	-26.80 Kips	7.30
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-44.80 Kips	0.95	-141.08 Kips	-27.88 Kips	-77.46 Kips	1.46
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	55.80 Kips	1.00	269.10 Kips	79.38 Kips	96.48 Kips	1.96
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-31.10 Kips	1.00	-230.40 Kips	0.00 Kips	-53.77 Kips	4.28
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	55.20 Kips	0.95	255.65 Kips	51.50 Kips	95.44 Kips	2.13
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-51.90 Kips	0.95	-218.88 Kips	0.00 Kips	-89.74 Kips	2.43
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-38.60 Kips	0.95	-133.38 Kips	-25.00 Kips	-66.74 Kips	1.62
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	60.60 Kips	1.00	268.20 Kips	51.25 Kips	104.78 Kips	2.07
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-36.50 Kips	1.00	-220.50 Kips	0.00 Kips	-63.11 Kips	3.49
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	58.30 Kips	0.95	254.79 Kips	26.25 Kips	100.80 Kips	2.26
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-46.30 Kips	0.95	-209.48 Kips	0.00 Kips	-80.05 Kips	2.61
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	58.30 Kips	0.95	254.79 Kips	26.25 Kips	100.80 Kips	2.26
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-46.30 Kips	0.95	-209.48 Kips	0.00 Kips	-80.05 Kips	2.61
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	60.60 Kips	1.00	268.20 Kips	51.25 Kips	104.78 Kips	2.07
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-36.50 Kips	1.00	-220.50 Kips	0.00 Kips	-63.11 Kips	3.49
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-38.60 Kips	0.95	-133.38 Kips	-25.00 Kips	-66.74 Kips	1.62
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	55.20 Kips	0.95	255.65 Kips	51.50 Kips	95.44 Kips	2.13
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-51.90 Kips	0.95	-218.88 Kips	0.00 Kips	-89.74 Kips	2.43
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	55.80 Kips	1.00	269.10 Kips	79.38 Kips	96.48 Kips	1.96
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-31.10 Kips	1.00	-230.40 Kips	0.00 Kips	-53.77 Kips	4.28
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-44.80 Kips	0.95	-141.93 Kips	-27.88 Kips	-77.46 Kips	1.47
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	46.90 Kips	0.95	259.07 Kips	88.63 Kips	81.09 Kips	2.10
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-15.50 Kips	0.95	-195.80 Kips	0.00 Kips	-26.80 Kips	7.30
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-107.10 Kips	0.95	-807.98 Kips	-246.88 Kips	-185.18 Kips	3.03

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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-3**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	69.60 Kips	0.95	448.02 Kips	166.63 Kips	120.34 Kips	2.33
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	69.60 Kips	0.95	448.02 Kips	166.63 Kips	120.34 Kips	2.33
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	129.30 Kips	0.95	628.43 Kips	251.38 Kips	223.56 Kips	1.68
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	129.30 Kips	0.95	628.43 Kips	251.38 Kips	223.56 Kips	1.68
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	145.30 Kips	0.95	745.56 Kips	312.00 Kips	251.22 Kips	1.72
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	145.30 Kips	0.95	745.56 Kips	312.00 Kips	251.22 Kips	1.72
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	145.30 Kips	0.95	745.56 Kips	312.00 Kips	251.22 Kips	1.72
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	145.30 Kips	0.95	745.56 Kips	312.00 Kips	251.22 Kips	1.72
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	129.30 Kips	0.95	628.43 Kips	251.38 Kips	223.56 Kips	1.68
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	129.30 Kips	0.95	628.43 Kips	251.38 Kips	223.56 Kips	1.68
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	69.60 Kips	0.95	448.02 Kips	166.63 Kips	120.34 Kips	2.33
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	69.60 Kips	0.95	448.02 Kips	166.63 Kips	120.34 Kips	2.33

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-101.50 Kips	1.00	-705.60 Kips	-244.88 Kips	-175.49 Kips	2.62
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-123.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-214.05 Kips	2.32
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-123.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-214.05 Kips	2.32
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-136.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-236.35 Kips	2.33
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-136.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-236.35 Kips	2.33
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-136.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-236.35 Kips	2.33
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-136.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-236.35 Kips	2.33
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-123.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-214.05 Kips	2.32
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-123.80 Kips	1.00	-795.60 Kips	-298.75 Kips	-214.05 Kips	2.32
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-101.50 Kips	1.00	-705.60 Kips	-244.88 Kips	-175.49 Kips	2.62

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading. Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-3**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	48.50 Kips	0.95	134.24 Kips	23.13 Kips	83.86 Kips	1.32
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	39.80 Kips	0.95	240.26 Kips	0.00 Kips	68.81 Kips	3.49
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-25.30 Kips	0.95	-204.35 Kips	-21.63 Kips	-43.74 Kips	4.17
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	49.20 Kips	0.95	134.24 Kips	23.88 Kips	85.07 Kips	1.29
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	45.80 Kips	0.95	240.26 Kips	13.63 Kips	79.19 Kips	2.86
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.30 Kips	0.95	-171.86 Kips	0.00 Kips	-38.56 Kips	4.45
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	49.20 Kips	0.95	134.24 Kips	24.50 Kips	85.07 Kips	1.28
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	49.20 Kips	0.95	134.24 Kips	24.50 Kips	85.07 Kips	1.28
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	45.80 Kips	0.95	240.26 Kips	13.63 Kips	79.19 Kips	2.86
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.30 Kips	0.95	-171.86 Kips	0.00 Kips	-38.56 Kips	4.45
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	49.20 Kips	0.95	134.24 Kips	23.88 Kips	85.07 Kips	1.29
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	39.80 Kips	0.95	240.26 Kips	0.00 Kips	68.81 Kips	3.49
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-25.30 Kips	0.95	-204.35 Kips	-21.75 Kips	-43.74 Kips	4.17
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	48.50 Kips	0.95	134.24 Kips	23.13 Kips	83.86 Kips	1.32

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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
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Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-103.10 Kips	0.95	-807.98 Kips	-246.88 Kips	-178.26 Kips	3.14
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	45.20 Kips	0.95	259.07 Kips	88.63 Kips	78.15 Kips	2.18
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-15.40 Kips	0.95	-195.80 Kips	0.00 Kips	-26.63 Kips	7.35
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-42.80 Kips	0.95	-141.08 Kips	-27.88 Kips	-74.00 Kips	1.52
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	53.80 Kips	1.00	269.10 Kips	79.38 Kips	93.02 Kips	2.03
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-32.40 Kips	1.00	-230.40 Kips	0.00 Kips	-56.02 Kips	4.11
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	53.80 Kips	0.95	255.65 Kips	51.50 Kips	93.02 Kips	2.19
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-51.90 Kips	0.95	-218.88 Kips	0.00 Kips	-89.74 Kips	2.43
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-36.90 Kips	0.95	-133.38 Kips	-25.00 Kips	-63.80 Kips	1.69
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	58.30 Kips	1.00	268.20 Kips	51.25 Kips	100.80 Kips	2.15
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-35.80 Kips	1.00	-220.50 Kips	0.00 Kips	-61.90 Kips	3.56
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	57.70 Kips	0.95	254.79 Kips	26.25 Kips	99.76 Kips	2.29
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-46.50 Kips	0.95	-209.48 Kips	0.00 Kips	-80.40 Kips	2.60
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	57.70 Kips	0.95	254.79 Kips	26.25 Kips	99.76 Kips	2.29
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-46.50 Kips	0.95	-209.48 Kips	0.00 Kips	-80.40 Kips	2.60
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	58.30 Kips	1.00	268.20 Kips	51.25 Kips	100.80 Kips	2.15
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-35.80 Kips	1.00	-220.50 Kips	0.00 Kips	-61.90 Kips	3.56
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-36.90 Kips	0.95	-133.38 Kips	-25.00 Kips	-63.80 Kips	1.69
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	53.80 Kips	0.95	255.65 Kips	51.50 Kips	93.02 Kips	2.19
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-51.90 Kips	0.95	-218.88 Kips	0.00 Kips	-89.74 Kips	2.43
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	53.80 Kips	1.00	269.10 Kips	79.38 Kips	93.02 Kips	2.03
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-32.40 Kips	1.00	-230.40 Kips	0.00 Kips	-56.02 Kips	4.11
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-42.80 Kips	0.95	-141.93 Kips	-27.88 Kips	-74.00 Kips	1.54
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	45.20 Kips	0.95	259.07 Kips	88.63 Kips	78.15 Kips	2.18
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-15.40 Kips	0.95	-195.80 Kips	0.00 Kips	-26.63 Kips	7.35
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-103.10 Kips	0.95	-807.98 Kips	-246.88 Kips	-178.26 Kips	3.14

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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-4**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	70.60 Kips	0.95	448.02 Kips	166.63 Kips	122.07 Kips	2.30
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	70.60 Kips	0.95	448.02 Kips	166.63 Kips	122.07 Kips	2.30
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	126.50 Kips	0.95	628.43 Kips	251.38 Kips	218.72 Kips	1.72
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	126.50 Kips	0.95	628.43 Kips	251.38 Kips	218.72 Kips	1.72
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	144.70 Kips	0.95	745.56 Kips	312.00 Kips	250.19 Kips	1.73
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	144.70 Kips	0.95	745.56 Kips	312.00 Kips	250.19 Kips	1.73
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	144.70 Kips	0.95	745.56 Kips	312.00 Kips	250.19 Kips	1.73
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	144.70 Kips	0.95	745.56 Kips	312.00 Kips	250.19 Kips	1.73
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	126.50 Kips	0.95	628.43 Kips	251.38 Kips	218.72 Kips	1.72
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	126.50 Kips	0.95	628.43 Kips	251.38 Kips	218.72 Kips	1.72
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	70.60 Kips	0.95	448.02 Kips	166.63 Kips	122.07 Kips	2.30
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	70.60 Kips	0.95	448.02 Kips	166.63 Kips	122.07 Kips	2.30

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-102.70 Kips	1.00	-705.60 Kips	-244.88 Kips	-177.57 Kips	2.59
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-123.50 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.53 Kips	2.32
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-123.50 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.53 Kips	2.32
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-136.10 Kips	1.00	-883.80 Kips	-331.63 Kips	-235.32 Kips	2.34
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-136.10 Kips	1.00	-883.80 Kips	-331.63 Kips	-235.32 Kips	2.34
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-136.10 Kips	1.00	-883.80 Kips	-331.63 Kips	-235.32 Kips	2.34
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-136.10 Kips	1.00	-883.80 Kips	-331.63 Kips	-235.32 Kips	2.34
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-123.50 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.53 Kips	2.32
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-123.50 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.53 Kips	2.32
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-102.70 Kips	1.00	-705.60 Kips	-244.88 Kips	-177.57 Kips	2.59

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Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
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	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	46.70 Kips	0.95	134.24 Kips	23.13 Kips	80.74 Kips	1.37
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	38.20 Kips	0.95	240.26 Kips	0.00 Kips	66.05 Kips	3.63
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-25.80 Kips	0.95	-204.35 Kips	-21.63 Kips	-44.61 Kips	4.09
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	47.30 Kips	0.95	134.24 Kips	23.88 Kips	81.78 Kips	1.34
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	46.00 Kips	0.95	240.26 Kips	13.63 Kips	79.53 Kips	2.84
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.90 Kips	0.95	-171.86 Kips	0.00 Kips	-39.59 Kips	4.34
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	47.30 Kips	0.95	134.24 Kips	24.50 Kips	81.78 Kips	1.34
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	47.30 Kips	0.95	134.24 Kips	24.50 Kips	81.78 Kips	1.34
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	46.00 Kips	0.95	240.26 Kips	13.63 Kips	79.53 Kips	2.84
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.90 Kips	0.95	-171.86 Kips	0.00 Kips	-39.59 Kips	4.34
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	47.30 Kips	0.95	134.24 Kips	23.88 Kips	81.78 Kips	1.34
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	38.20 Kips	0.95	240.26 Kips	0.00 Kips	66.05 Kips	3.63
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-25.80 Kips	0.95	-204.35 Kips	-21.75 Kips	-44.61 Kips	4.09
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	46.70 Kips	0.95	134.24 Kips	23.13 Kips	80.74 Kips	1.37

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Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-104.60 Kips	0.95	-807.98 Kips	-246.88 Kips	-180.85 Kips	3.10
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	46.00 Kips	0.95	259.07 Kips	88.63 Kips	79.53 Kips	2.14
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-16.40 Kips	0.95	-195.80 Kips	0.00 Kips	-28.36 Kips	6.90
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-41.10 Kips	0.95	-141.08 Kips	-27.88 Kips	-71.06 Kips	1.59
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	54.90 Kips	1.00	269.10 Kips	79.38 Kips	94.92 Kips	1.99
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-32.30 Kips	1.00	-230.40 Kips	0.00 Kips	-55.85 Kips	4.12
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	54.90 Kips	0.95	255.65 Kips	51.50 Kips	94.92 Kips	2.15
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-54.90 Kips	0.95	-218.88 Kips	0.00 Kips	-94.92 Kips	2.30
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-35.40 Kips	0.95	-133.38 Kips	-25.00 Kips	-61.21 Kips	1.77
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	59.40 Kips	1.00	268.20 Kips	51.25 Kips	102.70 Kips	2.11
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-36.90 Kips	1.00	-220.50 Kips	0.00 Kips	-63.80 Kips	3.45
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	59.40 Kips	0.95	254.79 Kips	26.25 Kips	102.70 Kips	2.22
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-48.10 Kips	0.95	-209.48 Kips	0.00 Kips	-83.16 Kips	2.51
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	59.40 Kips	0.95	254.79 Kips	26.25 Kips	102.70 Kips	2.22
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-48.10 Kips	0.95	-209.48 Kips	0.00 Kips	-83.16 Kips	2.51
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	59.40 Kips	1.00	268.20 Kips	51.25 Kips	102.70 Kips	2.11
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-36.90 Kips	1.00	-220.50 Kips	0.00 Kips	-63.80 Kips	3.45
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-35.40 Kips	0.95	-133.38 Kips	-25.00 Kips	-61.21 Kips	1.77
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	54.90 Kips	0.95	255.65 Kips	51.50 Kips	94.92 Kips	2.15
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-54.90 Kips	0.95	-218.88 Kips	0.00 Kips	-94.92 Kips	2.30
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	54.90 Kips	1.00	269.10 Kips	79.38 Kips	94.92 Kips	1.99
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-32.30 Kips	1.00	-230.40 Kips	0.00 Kips	-55.85 Kips	4.12
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-41.10 Kips	0.95	-141.93 Kips	-27.88 Kips	-71.06 Kips	1.60
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	46.00 Kips	0.95	259.07 Kips	88.63 Kips	79.53 Kips	2.14
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-16.40 Kips	0.95	-195.80 Kips	0.00 Kips	-28.36 Kips	6.90
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-104.60 Kips	0.95	-807.98 Kips	-246.88 Kips	-180.85 Kips	3.10

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading. Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-5**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	69.70 Kips	0.95	448.02 Kips	166.63 Kips	120.51 Kips	2.33
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	69.70 Kips	0.95	448.02 Kips	166.63 Kips	120.51 Kips	2.33
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	127.10 Kips	0.95	628.43 Kips	251.38 Kips	219.76 Kips	1.71
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	127.10 Kips	0.95	628.43 Kips	251.38 Kips	219.76 Kips	1.71
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	144.30 Kips	0.95	745.56 Kips	312.00 Kips	249.49 Kips	1.73
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	144.30 Kips	0.95	745.56 Kips	312.00 Kips	249.49 Kips	1.73
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	144.30 Kips	0.95	745.56 Kips	312.00 Kips	249.49 Kips	1.73
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	144.30 Kips	0.95	745.56 Kips	312.00 Kips	249.49 Kips	1.73
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	127.10 Kips	0.95	628.43 Kips	251.38 Kips	219.76 Kips	1.71
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	127.10 Kips	0.95	628.43 Kips	251.38 Kips	219.76 Kips	1.71
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	69.70 Kips	0.95	448.02 Kips	166.63 Kips	120.51 Kips	2.33
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	69.70 Kips	0.95	448.02 Kips	166.63 Kips	120.51 Kips	2.33

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-101.40 Kips	1.00	-705.60 Kips	-244.88 Kips	-175.32 Kips	2.62
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-123.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.19 Kips	2.33
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-123.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.19 Kips	2.33
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-135.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-234.63 Kips	2.35
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-135.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-234.63 Kips	2.35
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-135.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-234.63 Kips	2.35
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-135.70 Kips	1.00	-883.80 Kips	-331.63 Kips	-234.63 Kips	2.35
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-123.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.19 Kips	2.33
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-123.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-213.19 Kips	2.33
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-101.40 Kips	1.00	-705.60 Kips	-244.88 Kips	-175.32 Kips	2.62

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-5**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	45.20 Kips	0.95	134.24 Kips	23.13 Kips	78.15 Kips	1.42
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	38.60 Kips	0.95	240.26 Kips	0.00 Kips	66.74 Kips	3.59
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-25.30 Kips	0.95	-204.35 Kips	-21.63 Kips	-43.74 Kips	4.17
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	46.00 Kips	0.95	134.24 Kips	23.88 Kips	79.53 Kips	1.38
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	45.60 Kips	0.95	240.26 Kips	13.63 Kips	78.84 Kips	2.87
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.30 Kips	0.95	-171.86 Kips	0.00 Kips	-38.56 Kips	4.45
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	46.00 Kips	0.95	134.24 Kips	24.50 Kips	79.53 Kips	1.37
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	46.00 Kips	0.95	134.24 Kips	24.50 Kips	79.53 Kips	1.37
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	45.60 Kips	0.95	240.26 Kips	13.63 Kips	78.84 Kips	2.87
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-22.30 Kips	0.95	-171.86 Kips	0.00 Kips	-38.56 Kips	4.45
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	46.00 Kips	0.95	134.24 Kips	23.88 Kips	79.53 Kips	1.38
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	38.60 Kips	0.95	240.26 Kips	0.00 Kips	66.74 Kips	3.59
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-25.30 Kips	0.95	-204.35 Kips	-21.75 Kips	-43.74 Kips	4.17
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	45.20 Kips	0.95	134.24 Kips	23.13 Kips	78.15 Kips	1.42

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-5**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-103.20 Kips	0.95	-807.98 Kips	-246.88 Kips	-178.43 Kips	3.14
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	45.30 Kips	0.95	259.07 Kips	88.63 Kips	78.32 Kips	2.17
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-15.40 Kips	0.95	-195.80 Kips	0.00 Kips	-26.63 Kips	7.35
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-40.00 Kips	0.95	-141.08 Kips	-27.88 Kips	-69.16 Kips	1.63
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	53.90 Kips	1.00	269.10 Kips	79.38 Kips	93.19 Kips	2.03
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-31.90 Kips	1.00	-230.40 Kips	0.00 Kips	-55.16 Kips	4.17
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	53.90 Kips	0.95	255.65 Kips	51.50 Kips	93.19 Kips	2.19
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-51.60 Kips	0.95	-218.88 Kips	0.00 Kips	-89.22 Kips	2.45
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-34.50 Kips	0.95	-133.38 Kips	-25.00 Kips	-59.65 Kips	1.81
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	58.20 Kips	1.00	268.20 Kips	51.25 Kips	100.63 Kips	2.15
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-35.60 Kips	1.00	-220.50 Kips	0.00 Kips	-61.55 Kips	3.58
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	57.80 Kips	0.95	254.79 Kips	26.25 Kips	99.94 Kips	2.28
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-46.60 Kips	0.95	-209.48 Kips	0.00 Kips	-80.57 Kips	2.59
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	57.80 Kips	0.95	254.79 Kips	26.25 Kips	99.94 Kips	2.28
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-46.60 Kips	0.95	-209.48 Kips	0.00 Kips	-80.57 Kips	2.59
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	58.20 Kips	1.00	268.20 Kips	51.25 Kips	100.63 Kips	2.15
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-35.60 Kips	1.00	-220.50 Kips	0.00 Kips	-61.55 Kips	3.58
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-34.50 Kips	0.95	-133.38 Kips	-25.00 Kips	-59.65 Kips	1.81
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	53.90 Kips	0.95	255.65 Kips	51.50 Kips	93.19 Kips	2.19
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-51.60 Kips	0.95	-218.88 Kips	0.00 Kips	-89.22 Kips	2.45
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	53.90 Kips	1.00	269.10 Kips	79.38 Kips	93.19 Kips	2.03
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-31.90 Kips	1.00	-230.40 Kips	0.00 Kips	-55.16 Kips	4.17
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-40.00 Kips	0.95	-141.93 Kips	-27.88 Kips	-69.16 Kips	1.64
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	45.30 Kips	0.95	259.07 Kips	88.63 Kips	78.32 Kips	2.17
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-15.40 Kips	0.95	-195.80 Kips	0.00 Kips	-26.63 Kips	7.35
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-103.20 Kips	0.95	-807.98 Kips	-246.88 Kips	-178.43 Kips	3.14

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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading. Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-6**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	63.00 Kips	0.95	448.02 Kips	166.63 Kips	108.93 Kips	2.58
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	63.00 Kips	0.95	448.02 Kips	166.63 Kips	108.93 Kips	2.58
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	123.30 Kips	0.95	628.43 Kips	251.38 Kips	213.19 Kips	1.76
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	123.30 Kips	0.95	628.43 Kips	251.38 Kips	213.19 Kips	1.76
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	133.80 Kips	0.95	745.56 Kips	312.00 Kips	231.34 Kips	1.87
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	133.80 Kips	0.95	745.56 Kips	312.00 Kips	231.34 Kips	1.87
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	133.80 Kips	0.95	745.56 Kips	312.00 Kips	231.34 Kips	1.87
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	133.80 Kips	0.95	745.56 Kips	312.00 Kips	231.34 Kips	1.87
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	123.30 Kips	0.95	628.43 Kips	251.38 Kips	213.19 Kips	1.76
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	123.30 Kips	0.95	628.43 Kips	251.38 Kips	213.19 Kips	1.76
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	63.00 Kips	0.95	448.02 Kips	166.63 Kips	108.93 Kips	2.58
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	63.00 Kips	0.95	448.02 Kips	166.63 Kips	108.93 Kips	2.58

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-92.00 Kips	1.00	-705.60 Kips	-244.88 Kips	-159.07 Kips	2.89
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-111.10 Kips	1.00	-795.60 Kips	-298.75 Kips	-192.09 Kips	2.58
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-111.10 Kips	1.00	-795.60 Kips	-298.75 Kips	-192.09 Kips	2.58
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-122.80 Kips	1.00	-883.80 Kips	-331.63 Kips	-212.32 Kips	2.60
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-122.80 Kips	1.00	-883.80 Kips	-331.63 Kips	-212.32 Kips	2.60
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-122.80 Kips	1.00	-883.80 Kips	-331.63 Kips	-212.32 Kips	2.60
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-122.80 Kips	1.00	-883.80 Kips	-331.63 Kips	-212.32 Kips	2.60
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-111.10 Kips	1.00	-795.60 Kips	-298.75 Kips	-192.09 Kips	2.58
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-111.10 Kips	1.00	-795.60 Kips	-298.75 Kips	-192.09 Kips	2.58
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-92.00 Kips	1.00	-705.60 Kips	-244.88 Kips	-159.07 Kips	2.89

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-6**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	59.80 Kips	0.95	134.24 Kips	23.13 Kips	103.39 Kips	1.07
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	40.60 Kips	0.95	240.26 Kips	0.00 Kips	70.20 Kips	3.42
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-23.30 Kips	0.95	-204.35 Kips	-21.63 Kips	-40.29 Kips	4.53
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	60.10 Kips	0.95	134.24 Kips	23.88 Kips	103.91 Kips	1.06
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	43.50 Kips	0.95	240.26 Kips	13.63 Kips	75.21 Kips	3.01
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-21.10 Kips	0.95	-171.86 Kips	0.00 Kips	-36.48 Kips	4.71
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	60.10 Kips	0.95	134.24 Kips	24.50 Kips	103.91 Kips	1.05
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	60.10 Kips	0.95	134.24 Kips	24.50 Kips	103.91 Kips	1.05
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	43.50 Kips	0.95	240.26 Kips	13.63 Kips	75.21 Kips	3.01
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-21.10 Kips	0.95	-171.86 Kips	0.00 Kips	-36.48 Kips	4.71
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	60.10 Kips	0.95	134.24 Kips	23.88 Kips	103.91 Kips	1.06
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	40.60 Kips	0.95	240.26 Kips	0.00 Kips	70.20 Kips	3.42
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-23.30 Kips	0.95	-204.35 Kips	-21.75 Kips	-40.29 Kips	4.53
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	59.80 Kips	0.95	134.24 Kips	23.13 Kips	103.39 Kips	1.07

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-6**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi R_n \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-93.40 Kips	0.95	-807.98 Kips	-246.88 Kips	-161.49 Kips	3.47
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	41.20 Kips	0.95	259.07 Kips	88.63 Kips	71.23 Kips	2.39
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-21.80 Kips	0.95	-195.80 Kips	0.00 Kips	-37.69 Kips	5.19
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-52.20 Kips	0.95	-141.08 Kips	-27.88 Kips	-90.25 Kips	1.25
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	49.70 Kips	1.00	269.10 Kips	79.38 Kips	85.93 Kips	2.20
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-34.30 Kips	1.00	-230.40 Kips	0.00 Kips	-59.30 Kips	3.88
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	49.70 Kips	0.95	255.65 Kips	51.50 Kips	85.93 Kips	2.37
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-54.70 Kips	0.95	-218.88 Kips	0.00 Kips	-94.58 Kips	2.31
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-45.00 Kips	0.95	-133.38 Kips	-25.00 Kips	-77.81 Kips	1.39
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	54.70 Kips	1.00	268.20 Kips	51.25 Kips	94.58 Kips	2.29
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-35.20 Kips	1.00	-220.50 Kips	0.00 Kips	-60.86 Kips	3.62
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	54.70 Kips	0.95	254.79 Kips	26.25 Kips	94.58 Kips	2.41
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-45.00 Kips	0.95	-209.48 Kips	0.00 Kips	-77.81 Kips	2.69
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	54.70 Kips	0.95	254.79 Kips	26.25 Kips	94.58 Kips	2.41
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-45.00 Kips	0.95	-209.48 Kips	0.00 Kips	-77.81 Kips	2.69
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	54.70 Kips	1.00	268.20 Kips	51.25 Kips	94.58 Kips	2.29
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-35.20 Kips	1.00	-220.50 Kips	0.00 Kips	-60.86 Kips	3.62
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-45.00 Kips	0.95	-133.38 Kips	-25.00 Kips	-77.81 Kips	1.39
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	49.70 Kips	0.95	255.65 Kips	51.50 Kips	85.93 Kips	2.37
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-54.70 Kips	0.95	-218.88 Kips	0.00 Kips	-94.58 Kips	2.31
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	49.70 Kips	1.00	269.10 Kips	79.38 Kips	85.93 Kips	2.20
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-34.30 Kips	1.00	-230.40 Kips	0.00 Kips	-59.30 Kips	3.88
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-52.20 Kips	0.95	-141.93 Kips	-27.88 Kips	-90.25 Kips	1.26
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	41.20 Kips	0.95	259.07 Kips	88.63 Kips	71.23 Kips	2.39
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-21.80 Kips	0.95	-195.80 Kips	0.00 Kips	-37.69 Kips	5.19
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-93.40 Kips	0.95	-807.98 Kips	-246.88 Kips	-161.49 Kips	3.47

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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading. Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-7**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	49.60 Kips	0.95	448.02 Kips	166.63 Kips	85.76 Kips	3.28
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	49.60 Kips	0.95	448.02 Kips	166.63 Kips	85.76 Kips	3.28
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	97.10 Kips	0.95	628.43 Kips	251.38 Kips	167.89 Kips	2.24
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	97.10 Kips	0.95	628.43 Kips	251.38 Kips	167.89 Kips	2.24
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	105.50 Kips	0.95	745.56 Kips	312.00 Kips	182.41 Kips	2.37
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	105.50 Kips	0.95	745.56 Kips	312.00 Kips	182.41 Kips	2.37
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	105.50 Kips	0.95	745.56 Kips	312.00 Kips	182.41 Kips	2.37
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	105.50 Kips	0.95	745.56 Kips	312.00 Kips	182.41 Kips	2.37
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	97.10 Kips	0.95	628.43 Kips	251.38 Kips	167.89 Kips	2.24
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	97.10 Kips	0.95	628.43 Kips	251.38 Kips	167.89 Kips	2.24
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	49.60 Kips	0.95	448.02 Kips	166.63 Kips	85.76 Kips	3.28
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	49.60 Kips	0.95	448.02 Kips	166.63 Kips	85.76 Kips	3.28

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-72.50 Kips	1.00	-705.60 Kips	-244.88 Kips	-125.35 Kips	3.67
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-87.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-150.94 Kips	3.29
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-87.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-150.94 Kips	3.29
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-96.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-166.85 Kips	3.30
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-96.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-166.85 Kips	3.30
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-96.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-166.85 Kips	3.30
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-96.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-166.85 Kips	3.30
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-87.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-150.94 Kips	3.29
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-87.30 Kips	1.00	-795.60 Kips	-298.75 Kips	-150.94 Kips	3.29
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-72.50 Kips	1.00	-705.60 Kips	-244.88 Kips	-125.35 Kips	3.67

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	48.20 Kips	0.95	134.24 Kips	23.13 Kips	83.34 Kips	1.33
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	32.10 Kips	0.95	240.26 Kips	0.00 Kips	55.50 Kips	4.32
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-18.40 Kips	0.95	-204.35 Kips	-21.63 Kips	-31.81 Kips	5.74
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	48.50 Kips	0.95	134.24 Kips	23.88 Kips	83.86 Kips	1.31
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	34.70 Kips	0.95	240.26 Kips	13.63 Kips	60.00 Kips	3.77
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-16.70 Kips	0.95	-171.86 Kips	0.00 Kips	-28.87 Kips	5.95
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	48.50 Kips	0.95	134.24 Kips	24.50 Kips	83.86 Kips	1.30
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	48.50 Kips	0.95	134.24 Kips	24.50 Kips	83.86 Kips	1.30
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	34.70 Kips	0.95	240.26 Kips	13.63 Kips	60.00 Kips	3.77
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-16.70 Kips	0.95	-171.86 Kips	0.00 Kips	-28.87 Kips	5.95
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	48.50 Kips	0.95	134.24 Kips	23.88 Kips	83.86 Kips	1.31
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	32.10 Kips	0.95	240.26 Kips	0.00 Kips	55.50 Kips	4.32
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-18.40 Kips	0.95	-204.35 Kips	-21.75 Kips	-31.81 Kips	5.73
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	48.20 Kips	0.95	134.24 Kips	23.13 Kips	83.34 Kips	1.33

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-7**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-73.50 Kips	0.95	-807.98 Kips	-246.88 Kips	-127.08 Kips	4.41
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	32.40 Kips	0.95	259.07 Kips	88.63 Kips	56.02 Kips	3.04
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-18.30 Kips	0.95	-195.80 Kips	0.00 Kips	-31.64 Kips	6.18
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-42.10 Kips	0.95	-141.08 Kips	-27.88 Kips	-72.79 Kips	1.55
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	39.20 Kips	1.00	269.10 Kips	79.38 Kips	67.78 Kips	2.79
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-27.70 Kips	1.00	-230.40 Kips	0.00 Kips	-47.89 Kips	4.81
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	39.20 Kips	0.95	255.65 Kips	51.50 Kips	67.78 Kips	3.01
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-44.00 Kips	0.95	-218.88 Kips	0.00 Kips	-76.08 Kips	2.87
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-36.30 Kips	0.95	-133.38 Kips	-25.00 Kips	-62.76 Kips	1.72
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	43.30 Kips	1.00	268.20 Kips	51.25 Kips	74.87 Kips	2.89
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-28.10 Kips	1.00	-220.50 Kips	0.00 Kips	-48.58 Kips	4.53
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	43.30 Kips	0.95	254.79 Kips	26.25 Kips	74.87 Kips	3.05
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-35.70 Kips	0.95	-209.48 Kips	0.00 Kips	-61.73 Kips	3.39
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	43.30 Kips	0.95	254.79 Kips	26.25 Kips	74.87 Kips	3.05
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-35.70 Kips	0.95	-209.48 Kips	0.00 Kips	-61.73 Kips	3.39
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	43.30 Kips	1.00	268.20 Kips	51.25 Kips	74.87 Kips	2.89
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-28.10 Kips	1.00	-220.50 Kips	0.00 Kips	-48.58 Kips	4.53
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-36.30 Kips	0.95	-133.38 Kips	-25.00 Kips	-62.76 Kips	1.72
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	39.20 Kips	0.95	255.65 Kips	51.50 Kips	67.78 Kips	3.01
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-44.00 Kips	0.95	-218.88 Kips	0.00 Kips	-76.08 Kips	2.87
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	39.20 Kips	1.00	269.10 Kips	79.38 Kips	67.78 Kips	2.79
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-27.70 Kips	1.00	-230.40 Kips	0.00 Kips	-47.89 Kips	4.81
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-42.10 Kips	0.95	-141.93 Kips	-27.88 Kips	-72.79 Kips	1.56
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	32.40 Kips	0.95	259.07 Kips	88.63 Kips	56.02 Kips	3.04
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-18.30 Kips	0.95	-195.80 Kips	0.00 Kips	-31.64 Kips	6.18
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-73.50 Kips	0.95	-807.98 Kips	-246.88 Kips	-127.08 Kips	4.41

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-8**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
		Dynamic loading factor	1.33

Live load Factor (γ_{LL})	1.3

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	31.40 Kips	0.95	448.02 Kips	166.63 Kips	54.29 Kips	5.18
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	31.40 Kips	0.95	448.02 Kips	166.63 Kips	54.29 Kips	5.18
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	62.10 Kips	0.95	628.43 Kips	251.38 Kips	107.37 Kips	3.51
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	62.10 Kips	0.95	628.43 Kips	251.38 Kips	107.37 Kips	3.51
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	67.30 Kips	0.95	745.56 Kips	312.00 Kips	116.36 Kips	3.72
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	67.30 Kips	0.95	745.56 Kips	312.00 Kips	116.36 Kips	3.72
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	67.30 Kips	0.95	745.56 Kips	312.00 Kips	116.36 Kips	3.72
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	67.30 Kips	0.95	745.56 Kips	312.00 Kips	116.36 Kips	3.72
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	62.10 Kips	0.95	628.43 Kips	251.38 Kips	107.37 Kips	3.51
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	62.10 Kips	0.95	628.43 Kips	251.38 Kips	107.37 Kips	3.51
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	31.40 Kips	0.95	448.02 Kips	166.63 Kips	54.29 Kips	5.18
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	31.40 Kips	0.95	448.02 Kips	166.63 Kips	54.29 Kips	5.18

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-45.90 Kips	1.00	-705.60 Kips	-244.88 Kips	-79.36 Kips	5.80
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-55.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-95.79 Kips	5.18
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-55.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-95.79 Kips	5.18
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-60.90 Kips	1.00	-883.80 Kips	-331.63 Kips	-105.30 Kips	5.24
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-60.90 Kips	1.00	-883.80 Kips	-331.63 Kips	-105.30 Kips	5.24
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-60.90 Kips	1.00	-883.80 Kips	-331.63 Kips	-105.30 Kips	5.24
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-60.90 Kips	1.00	-883.80 Kips	-331.63 Kips	-105.30 Kips	5.24
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-55.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-95.79 Kips	5.18
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-55.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-95.79 Kips	5.18
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-45.90 Kips	1.00	-705.60 Kips	-244.88 Kips	-79.36 Kips	5.80

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-8**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	31.10 Kips	0.95	134.24 Kips	23.13 Kips	53.77 Kips	2.06
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	20.80 Kips	0.95	240.26 Kips	0.00 Kips	35.96 Kips	6.68
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-11.70 Kips	0.95	-204.35 Kips	-21.63 Kips	-20.23 Kips	9.03
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	31.10 Kips	0.95	134.24 Kips	23.88 Kips	53.77 Kips	2.05
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	22.20 Kips	0.95	240.26 Kips	13.63 Kips	38.38 Kips	5.90
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-10.60 Kips	0.95	-171.86 Kips	0.00 Kips	-18.33 Kips	9.37
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	31.10 Kips	0.95	134.24 Kips	24.50 Kips	53.77 Kips	2.04
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	31.10 Kips	0.95	134.24 Kips	24.50 Kips	53.77 Kips	2.04
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	22.20 Kips	0.95	240.26 Kips	13.63 Kips	38.38 Kips	5.90
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-10.60 Kips	0.95	-171.86 Kips	0.00 Kips	-18.33 Kips	9.37
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	31.10 Kips	0.95	134.24 Kips	23.88 Kips	53.77 Kips	2.05
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	20.80 Kips	0.95	240.26 Kips	0.00 Kips	35.96 Kips	6.68
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-11.70 Kips	0.95	-204.35 Kips	-21.75 Kips	-20.23 Kips	9.02
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	31.10 Kips	0.95	134.24 Kips	23.13 Kips	53.77 Kips	2.06

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Maine Legal Load-8**

BAR7 used to determine live load effects, see output file.

System Factor : **0.90** Dead load Factor (γ_{DC}) **1.25**
Dynamic loading factor **1.33**

Live load Factor (γ_{LL}) **1.3**

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load		Rating factor
	Plans	BAR7			Dead	LL			Dc	LL+IM	
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-46.60 Kips	0.95	-807.98 Kips	-246.88 Kips	-80.57 Kips	6.96
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	20.60 Kips	0.95	259.07 Kips	88.63 Kips	35.62 Kips	4.78
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-12.50 Kips	0.95	-195.80 Kips	0.00 Kips	-21.61 Kips	9.05
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-27.00 Kips	0.95	-141.08 Kips	-27.88 Kips	-46.68 Kips	2.42
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	24.90 Kips	1.00	269.10 Kips	79.38 Kips	43.05 Kips	4.40
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-18.00 Kips	1.00	-230.40 Kips	0.00 Kips	-31.12 Kips	7.40
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	24.90 Kips	0.95	255.65 Kips	51.50 Kips	43.05 Kips	4.74
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-28.30 Kips	0.95	-218.88 Kips	0.00 Kips	-48.93 Kips	4.47
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-23.30 Kips	0.95	-133.38 Kips	-25.00 Kips	-40.29 Kips	2.69
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	27.60 Kips	1.00	268.20 Kips	51.25 Kips	47.72 Kips	4.54
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-18.00 Kips	1.00	-220.50 Kips	0.00 Kips	-31.12 Kips	7.08
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	27.60 Kips	0.95	254.79 Kips	26.25 Kips	47.72 Kips	4.78
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-22.80 Kips	0.95	-209.48 Kips	0.00 Kips	-39.42 Kips	5.31
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	27.60 Kips	0.95	254.79 Kips	26.25 Kips	47.72 Kips	4.78
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-22.80 Kips	0.95	-209.48 Kips	0.00 Kips	-39.42 Kips	5.31
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	27.60 Kips	1.00	268.20 Kips	51.25 Kips	47.72 Kips	4.54
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-18.00 Kips	1.00	-220.50 Kips	0.00 Kips	-31.12 Kips	7.08
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-23.30 Kips	0.95	-133.38 Kips	-25.00 Kips	-40.29 Kips	2.69
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	24.90 Kips	0.95	255.65 Kips	51.50 Kips	43.05 Kips	4.74
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-28.30 Kips	0.95	-218.88 Kips	0.00 Kips	-48.93 Kips	4.47
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	24.90 Kips	1.00	269.10 Kips	79.38 Kips	43.05 Kips	4.40
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-18.00 Kips	1.00	-230.40 Kips	0.00 Kips	-31.12 Kips	7.40
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-27.00 Kips	0.95	-141.93 Kips	-27.88 Kips	-46.68 Kips	2.44
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	20.60 Kips	0.95	259.07 Kips	88.63 Kips	35.62 Kips	4.78
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-12.50 Kips	0.95	-195.80 Kips	0.00 Kips	-21.61 Kips	9.05
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-46.60 Kips	0.95	-807.98 Kips	-246.88 Kips	-80.57 Kips	6.96

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Canadian CL-625-ONT Truck load**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
Multi presence factor:	0.90	Dynamic loading factor	1.25

Live load Factor (γ_{LL}) (inv)	1.63
Live load Factor (γ_{LL}) (Opr)	1.35

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	104.40 Kips	0.95	448.02 Kips	166.63 Kips	191.44 Kips	158.56 Kips	1.46	1.77
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	104.40 Kips	0.95	448.02 Kips	166.63 Kips	191.44 Kips	158.56 Kips	1.46	1.77
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	179.60 Kips	0.95	628.43 Kips	251.38 Kips	329.34 Kips	272.77 Kips	1.14	1.38
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	179.60 Kips	0.95	628.43 Kips	251.38 Kips	329.34 Kips	272.77 Kips	1.14	1.38
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	211.80 Kips	0.95	745.56 Kips	312.00 Kips	388.39 Kips	321.67 Kips	1.11	1.34
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	211.80 Kips	0.95	745.56 Kips	312.00 Kips	388.39 Kips	321.67 Kips	1.11	1.34
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	211.80 Kips	0.95	745.56 Kips	312.00 Kips	388.39 Kips	321.67 Kips	1.11	1.34
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	211.80 Kips	0.95	745.56 Kips	312.00 Kips	388.39 Kips	321.67 Kips	1.11	1.34
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	179.60 Kips	0.95	628.43 Kips	251.38 Kips	329.34 Kips	272.77 Kips	1.14	1.38
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	179.60 Kips	0.95	628.43 Kips	251.38 Kips	329.34 Kips	272.77 Kips	1.14	1.38
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	104.40 Kips	0.95	448.02 Kips	166.63 Kips	191.44 Kips	158.56 Kips	1.46	1.77
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	104.40 Kips	0.95	448.02 Kips	166.63 Kips	191.44 Kips	158.56 Kips	1.46	1.77

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-155.90 Kips	1.00	-705.60 Kips	-244.88 Kips	-285.88 Kips	-236.77 Kips	1.61	1.94
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-187.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-343.64 Kips	-284.61 Kips	1.44	1.74
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-187.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-343.64 Kips	-284.61 Kips	1.44	1.74
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-202.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-371.33 Kips	-307.55 Kips	1.48	1.79
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-202.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-371.33 Kips	-307.55 Kips	1.48	1.79
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-202.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-371.33 Kips	-307.55 Kips	1.48	1.79
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-202.50 Kips	1.00	-883.80 Kips	-331.63 Kips	-371.33 Kips	-307.55 Kips	1.48	1.79
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-187.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-343.64 Kips	-284.61 Kips	1.44	1.74
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-187.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-343.64 Kips	-284.61 Kips	1.44	1.74
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-155.90 Kips	1.00	-705.60 Kips	-244.88 Kips	-285.88 Kips	-236.77 Kips	1.61	1.94

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Canadian CL-625-ONT Truck load**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
Multi presence factor:	0.90	Dynamic loading factor	1.25

Live load Factor (γ_{LL})(inv)	1.63
Live load Factor (γ_{LL})(Opr)	1.35

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	61.50 Kips	0.95	134.24 Kips	23.13 Kips	112.78 Kips	93.40 Kips	0.98	1.18
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	48.70 Kips	0.95	240.26 Kips	0.00 Kips	89.30 Kips	73.96 Kips	2.69	3.24
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-36.80 Kips	0.95	-204.35 Kips	-21.63 Kips	-67.48 Kips	-55.89 Kips	2.70	3.26
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	62.00 Kips	0.95	134.24 Kips	23.88 Kips	113.69 Kips	94.16 Kips	0.97	1.17
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	64.90 Kips	0.95	240.26 Kips	13.63 Kips	119.01 Kips	98.57 Kips	1.90	2.29
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-32.00 Kips	0.95	-171.86 Kips	0.00 Kips	-58.68 Kips	-48.60 Kips	2.92	3.53
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	62.00 Kips	0.95	134.24 Kips	24.50 Kips	113.69 Kips	94.16 Kips	0.96	1.16
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	62.00 Kips	0.95	134.24 Kips	24.50 Kips	113.69 Kips	94.16 Kips	0.96	1.16
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	64.90 Kips	0.95	240.26 Kips	13.63 Kips	119.01 Kips	98.57 Kips	1.90	2.29
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-32.00 Kips	0.95	-171.86 Kips	0.00 Kips	-58.68 Kips	-48.60 Kips	2.92	3.53
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	62.00 Kips	0.95	134.24 Kips	23.88 Kips	113.69 Kips	94.16 Kips	0.97	1.17
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	48.70 Kips	0.95	240.26 Kips	0.00 Kips	89.30 Kips	73.96 Kips	2.69	3.24
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-36.80 Kips	0.95	-204.35 Kips	-21.75 Kips	-67.48 Kips	-55.89 Kips	2.70	3.26
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	61.50 Kips	0.95	134.24 Kips	23.13 Kips	112.78 Kips	93.40 Kips	0.98	1.18

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the **Canadian CL-625-ONT Truck load**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
Multi presence factor:	0.90	Dynamic loading factor	1.25

Live load Factor (γ_{LL})(inv)	1.63
Live load Factor (γ_{LL})(Opr)	1.35

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi R_n \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-154.60 Kips	0.95	-807.98 Kips	-246.88 Kips	-283.50 Kips	-234.80 Kips	1.97	2.38
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	67.30 Kips	0.95	259.07 Kips	88.63 Kips	123.41 Kips	102.21 Kips	1.38	1.66
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-21.40 Kips	0.95	-195.80 Kips	0.00 Kips	-39.24 Kips	-32.50 Kips	4.98	6.02
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-53.80 Kips	0.95	-141.08 Kips	-27.88 Kips	-98.66 Kips	-81.71 Kips	1.14	1.38
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	81.00 Kips	1.00	269.10 Kips	79.38 Kips	148.53 Kips	123.02 Kips	1.27	1.54
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-40.40 Kips	1.00	-230.40 Kips	0.00 Kips	-74.08 Kips	-61.36 Kips	3.11	3.75
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	78.40 Kips	0.95	255.65 Kips	51.50 Kips	143.77 Kips	119.07 Kips	1.41	1.71
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-69.50 Kips	0.95	-218.88 Kips	0.00 Kips	-127.45 Kips	-105.55 Kips	1.71	2.07
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-46.40 Kips	0.95	-133.38 Kips	-25.00 Kips	-85.09 Kips	-70.47 Kips	1.27	1.53
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	86.80 Kips	1.00	268.20 Kips	51.25 Kips	159.17 Kips	131.83 Kips	1.36	1.64
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-50.80 Kips	1.00	-220.50 Kips	0.00 Kips	-93.15 Kips	-77.15 Kips	2.36	2.85
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	81.60 Kips	0.95	254.79 Kips	26.25 Kips	149.63 Kips	123.93 Kips	1.52	1.84
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-63.60 Kips	0.95	-209.48 Kips	0.00 Kips	-116.63 Kips	-96.59 Kips	1.79	2.16
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	81.60 Kips	0.95	254.79 Kips	26.25 Kips	149.63 Kips	123.93 Kips	1.52	1.84
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-63.60 Kips	0.95	-209.48 Kips	0.00 Kips	-116.63 Kips	-96.59 Kips	1.79	2.16
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	86.80 Kips	1.00	268.20 Kips	51.25 Kips	159.17 Kips	131.83 Kips	1.36	1.64
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-50.80 Kips	1.00	-220.50 Kips	0.00 Kips	-93.15 Kips	-77.15 Kips	2.36	2.85
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-46.40 Kips	0.95	-133.38 Kips	-25.00 Kips	-85.09 Kips	-70.47 Kips	1.27	1.53
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	78.40 Kips	0.95	255.65 Kips	51.50 Kips	143.77 Kips	119.07 Kips	1.41	1.71
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-69.50 Kips	0.95	-218.88 Kips	0.00 Kips	-127.45 Kips	-105.55 Kips	1.71	2.07
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	81.00 Kips	1.00	269.10 Kips	79.38 Kips	148.53 Kips	123.02 Kips	1.27	1.54
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-40.40 Kips	1.00	-230.40 Kips	0.00 Kips	-74.08 Kips	-61.36 Kips	3.11	3.75
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-53.80 Kips	0.95	-141.93 Kips	-27.88 Kips	-98.66 Kips	-81.71 Kips	1.15	1.39
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	67.30 Kips	0.95	259.07 Kips	88.63 Kips	123.41 Kips	102.21 Kips	1.38	1.66
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-21.40 Kips	0.95	-195.80 Kips	0.00 Kips	-39.24 Kips	-32.50 Kips	4.98	6.02
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-154.60 Kips	0.95	-807.98 Kips	-246.88 Kips	-283.50 Kips	-234.80 Kips	1.97	2.38

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the Canadian **CL-625-ONT Lane load**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
Multi presence factor:	0.90	Dynamic loading factor	1.00

Live load Factor (γ_{LL}) (inv)	1.63
Live load Factor (γ_{LL}) (Opr)	1.35

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Lower Chord	L0 - L1	L0 - L1	Tens.	524 Kips	133.3 Kips	144.70 Kips	0.95	448.02 Kips	166.63 Kips	212.27 Kips	175.81 Kips	1.32	1.60
	L1 - L2	L1 - L2	Tens.	524 Kips	133.3 Kips	144.70 Kips	0.95	448.02 Kips	166.63 Kips	212.27 Kips	175.81 Kips	1.32	1.60
	L2 - L3	L2 - L3	Tens.	735 Kips	201.1 Kips	235.90 Kips	0.95	628.43 Kips	251.38 Kips	346.07 Kips	286.62 Kips	1.08	1.31
	L3 - L4	L3 - L4	Tens.	735 Kips	201.1 Kips	235.90 Kips	0.95	628.43 Kips	251.38 Kips	346.07 Kips	286.62 Kips	1.08	1.31
	L4 - L5	L4 - L5	Tens.	872 Kips	249.6 Kips	282.80 Kips	0.95	745.56 Kips	312.00 Kips	414.87 Kips	343.60 Kips	1.04	1.26
	L5 - L6	L5 - L6	Tens.	872 Kips	249.6 Kips	282.80 Kips	0.95	745.56 Kips	312.00 Kips	414.87 Kips	343.60 Kips	1.04	1.26
	L6 - L5	L5 - L6	Tens.	872 Kips	249.6 Kips	282.80 Kips	0.95	745.56 Kips	312.00 Kips	414.87 Kips	343.60 Kips	1.04	1.26
	L5 - L4	L4 - L5	Tens.	872 Kips	249.6 Kips	282.80 Kips	0.95	745.56 Kips	312.00 Kips	414.87 Kips	343.60 Kips	1.04	1.26
	L4 - L3	L3 - L4	Tens.	735 Kips	201.1 Kips	235.90 Kips	0.95	628.43 Kips	251.38 Kips	346.07 Kips	286.62 Kips	1.08	1.31
	L3 - L2	L2 - L3	Tens.	735 Kips	201.1 Kips	235.90 Kips	0.95	628.43 Kips	251.38 Kips	346.07 Kips	286.62 Kips	1.08	1.31
	L2 - L1	L1 - L2	Tens.	524 Kips	133.3 Kips	144.70 Kips	0.95	448.02 Kips	166.63 Kips	212.27 Kips	175.81 Kips	1.32	1.60
	L1 - L0	L0 - L1	Tens.	524 Kips	133.3 Kips	144.70 Kips	0.95	448.02 Kips	166.63 Kips	212.27 Kips	175.81 Kips	1.32	1.60

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Upper Chord	U1 - U2	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-214.20 Kips	1.00	-705.60 Kips	-244.88 Kips	-314.23 Kips	-260.25 Kips	1.46	1.77
	U2 - U3	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-258.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-379.07 Kips	-313.96 Kips	1.31	1.58
	U3 - U4	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-258.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-379.07 Kips	-313.96 Kips	1.31	1.58
	U4 - U5	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-282.20 Kips	1.00	-883.80 Kips	-331.63 Kips	-413.99 Kips	-342.87 Kips	1.33	1.61
	U5 - U6	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-282.20 Kips	1.00	-883.80 Kips	-331.63 Kips	-413.99 Kips	-342.87 Kips	1.33	1.61
	U6 - U5	U5 - U6	Comp.	-982 Kips	-265.3 Kips	-282.20 Kips	1.00	-883.80 Kips	-331.63 Kips	-413.99 Kips	-342.87 Kips	1.33	1.61
	U5 - U4	U4 - U5	Comp.	-982 Kips	-265.3 Kips	-282.20 Kips	1.00	-883.80 Kips	-331.63 Kips	-413.99 Kips	-342.87 Kips	1.33	1.61
	U4 - U3	U3 - U4	Comp.	-884 Kips	-239.0 Kips	-258.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-379.07 Kips	-313.96 Kips	1.31	1.58
	U3 - U2	U2 - U3	Comp.	-884 Kips	-239.0 Kips	-258.40 Kips	1.00	-795.60 Kips	-298.75 Kips	-379.07 Kips	-313.96 Kips	1.31	1.58
	U2 - U1	U1 - U2	Comp.	-784 Kips	-195.9 Kips	-214.20 Kips	1.00	-705.60 Kips	-244.88 Kips	-314.23 Kips	-260.25 Kips	1.46	1.77

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.

Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the Canadian **CL-625-ONT Lane load**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
Multi presence factor:	0.90	Dynamic loading factor	1.00

Live load Factor (γ_{LL})(inv)	1.63
Live load Factor (γ_{LL})(Opr)	1.35

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi_{R_n} \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Verticals	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	61.00 Kips	0.95	134.24 Kips	23.13 Kips	89.49 Kips	74.12 Kips	1.24	1.49
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	51.00 Kips	0.95	240.26 Kips	0.00 Kips	74.82 Kips	61.97 Kips	3.21	3.87
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.3 Kips	-46.10 Kips	0.95	-204.35 Kips	-21.63 Kips	-67.63 Kips	-56.01 Kips	2.70	3.26
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	61.70 Kips	0.95	134.24 Kips	23.88 Kips	90.51 Kips	74.97 Kips	1.21	1.47
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	71.80 Kips	0.95	240.26 Kips	13.63 Kips	105.33 Kips	87.24 Kips	2.15	2.59
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-37.20 Kips	0.95	-171.86 Kips	0.00 Kips	-54.57 Kips	-45.20 Kips	3.14	3.80
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	61.70 Kips	0.95	134.24 Kips	24.50 Kips	90.51 Kips	74.97 Kips	1.21	1.46
	U6 - L6	U6 - L6		0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	M5 - L5	M5 - L5	Tens.	157 Kips	19.6 Kips	61.70 Kips	0.95	134.24 Kips	24.50 Kips	90.51 Kips	74.97 Kips	1.21	1.46
	U5 - M5	U5 - M5		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	U4 - L4	U4 - L4	Tens.	281 Kips	10.9 Kips	71.80 Kips	0.95	240.26 Kips	13.63 Kips	105.33 Kips	87.24 Kips	2.15	2.59
	U4 - L4	U4 - L4	Comp.	-201 Kips	0.0 Kips	-37.20 Kips	0.95	-171.86 Kips	0.00 Kips	-54.57 Kips	-45.20 Kips	3.14	3.80
	M3 - L3	M3 - L3	Tens.	157 Kips	19.1 Kips	61.70 Kips	0.95	134.24 Kips	23.88 Kips	90.51 Kips	74.97 Kips	1.21	1.47
	U3 - M3	U3 - M3		0 Kips	0.0 Kips	0.00 Kips	1.00	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	U2 - L2	U2 - L2	Tens.	281 Kips	0.0 Kips	51.00 Kips	0.95	240.26 Kips	0.00 Kips	74.82 Kips	61.97 Kips	3.21	3.87
	U2 - L2	U2 - L2	Comp.	-239 Kips	-17.4 Kips	-46.10 Kips	0.95	-204.35 Kips	-21.75 Kips	-67.63 Kips	-56.01 Kips	2.69	3.25
	U1 - L1	U1 - L1	Tens.	157 Kips	18.5 Kips	61.00 Kips	0.95	134.24 Kips	23.13 Kips	89.49 Kips	74.12 Kips	1.24	1.49

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17

HNTB

Calculation of rating factors for the Truss members. Note, base member capacities and dead loads taken from 2012 PB loading.
Condition factors based on 2017 HNTB inspection. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation

Vehicle being Evaluated is the Canadian **CL-625-ONT Lane load**

BAR7 used to determine live load effects, see output file.

System Factor :	0.90	Dead load Factor (γ_{DC})	1.25
Multi presence factor:	0.90	Dynamic loading factor	1.00

Live load Factor (γ_{LL})(inv)	1.63
Live load Factor (γ_{LL})(Opr)	1.35

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

$$C = \phi_c \phi_s \phi R_n \quad 6A.4.2.1-2$$

	Member I.D. (per)		Loading Type	Member Capacity	Unfactored Loads		Condition Factor	Modified Capacity (C)	Factored Load			Rating factor	
	Plans	BAR7			Dead	LL			Dc	LL+IM (Inv)	LL+IM (Opr)	Inventory	Operating
Diagonals	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-214.30 Kips	0.95	-807.98 Kips	-246.88 Kips	-314.38 Kips	-260.37 Kips	1.78	2.15
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	89.40 Kips	0.95	259.07 Kips	88.63 Kips	131.15 Kips	108.62 Kips	1.29	1.56
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-20.50 Kips	0.95	-195.80 Kips	0.00 Kips	-30.07 Kips	-24.91 Kips	6.51	7.86
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L2 - M3	L2 - M3	Comp.	-165 Kips	-22.3 Kips	-53.70 Kips	0.95	-141.08 Kips	-27.88 Kips	-78.78 Kips	-65.25 Kips	1.43	1.73
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	102.00 Kips	1.00	269.10 Kips	79.38 Kips	149.63 Kips	123.93 Kips	1.26	1.53
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-41.30 Kips	1.00	-230.40 Kips	0.00 Kips	-60.59 Kips	-50.18 Kips	3.80	4.59
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	97.20 Kips	0.95	255.65 Kips	51.50 Kips	142.59 Kips	118.10 Kips	1.43	1.72
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-72.50 Kips	0.95	-218.88 Kips	0.00 Kips	-106.36 Kips	-88.09 Kips	2.05	2.48
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-46.30 Kips	0.95	-133.38 Kips	-25.00 Kips	-67.92 Kips	-56.25 Kips	1.59	1.92
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	102.10 Kips	1.00	268.20 Kips	51.25 Kips	149.78 Kips	124.05 Kips	1.44	1.74
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-55.00 Kips	1.00	-220.50 Kips	0.00 Kips	-80.69 Kips	-66.83 Kips	2.73	3.29
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	95.00 Kips	0.95	254.79 Kips	26.25 Kips	139.37 Kips	115.43 Kips	1.63	1.97
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-71.40 Kips	0.95	-209.48 Kips	0.00 Kips	-104.74 Kips	-86.75 Kips	1.99	2.41
	M5 - L6	M5 - L6	Tens.	298 Kips	21.0 Kips	95.00 Kips	0.95	254.79 Kips	26.25 Kips	139.37 Kips	115.43 Kips	1.63	1.97
	M5 - L6	M5 - L6	Comp.	-245 Kips	0.0 Kips	-71.40 Kips	0.95	-209.48 Kips	0.00 Kips	-104.74 Kips	-86.75 Kips	1.99	2.41
	M5 - U4	M5 - U4	Tens.	298 Kips	41.0 Kips	102.10 Kips	1.00	268.20 Kips	51.25 Kips	149.78 Kips	124.05 Kips	1.44	1.74
	M5 - U4	M5 - U4	Comp.	-245 Kips	0.0 Kips	-55.00 Kips	1.00	-220.50 Kips	0.00 Kips	-80.69 Kips	-66.83 Kips	2.73	3.29
	L4 - M5	L4 - M5	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L4 - M5	L4 - M5	Comp.	-156 Kips	-20.0 Kips	-46.30 Kips	0.95	-133.38 Kips	-25.00 Kips	-67.92 Kips	-56.25 Kips	1.59	1.92
	M3 - L4	M3 - L4	Tens.	299 Kips	41.2 Kips	97.20 Kips	0.95	255.65 Kips	51.50 Kips	142.59 Kips	118.10 Kips	1.43	1.72
	M3 - L4	M3 - L4	Comp.	-256 Kips	0.0 Kips	-72.50 Kips	0.95	-218.88 Kips	0.00 Kips	-106.36 Kips	-88.09 Kips	2.05	2.48
	M3 - U2	M3 - U2	Tens.	299 Kips	63.5 Kips	102.00 Kips	1.00	269.10 Kips	79.38 Kips	149.63 Kips	123.93 Kips	1.26	1.53
	M3 - U2	M3 - U2	Comp.	-256 Kips	0.0 Kips	-41.30 Kips	1.00	-230.40 Kips	0.00 Kips	-60.59 Kips	-50.18 Kips	3.80	4.59
	L2 - M3	L2 - M3	Tens.	0 Kips	0.0 Kips	0.00 Kips	0.95	0.00 Kips	0.00 Kips	0.00 Kips	0.00 Kips	999.00	999.00
	L2 - M3	L2 - M3	Comp.	-166 Kips	-22.3 Kips	-53.70 Kips	0.95	-141.93 Kips	-27.88 Kips	-78.78 Kips	-65.25 Kips	1.44	1.74
	U1 - L2	U1 - L2	Tens.	303 Kips	70.9 Kips	89.40 Kips	0.95	259.07 Kips	88.63 Kips	131.15 Kips	108.62 Kips	1.29	1.56
	U1 - L2	U1 - L2	Comp.	-229 Kips	0.0 Kips	-20.50 Kips	0.95	-195.80 Kips	0.00 Kips	-30.07 Kips	-24.91 Kips	6.51	7.86
	L0 - U1	L0 - U1	Comp.	-945 Kips	-197.5 Kips	-214.30 Kips	0.95	-807.98 Kips	-246.88 Kips	-314.38 Kips	-260.37 Kips	1.78	2.15

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Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Combine the unfactored load effects for the lane load and determine the controlling rating factors between truck loading and lane for the Canadian CL-625-ONT on the truss members. Load effects for the CL-625-ONT Lane were taken from the BAR7 analysis. The truss was analyzed by BAR7 to develop the load effects, however the program will not combine the truck load and lane load internally.

			Unfactored Loads CL-625-ONT Lane			Inventory			Operating		
Member I.D. (per)		Loading Type	Truck for lane	Lane	Truck + Lane	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling
Plans	BAR7										
Lower Chord	L0 - L1	L0 - L1	Tens.	83.5 Kips	61.20 Kips	144.70 Kips	1.46	1.32	1.32	1.77	1.60
	L1 - L2	L1 - L2	Tens.	83.5 Kips	61.20 Kips	144.70 Kips	1.46	1.32	1.32	1.77	1.60
	L2 - L3	L2 - L3	Tens.	143.7 Kips	92.20 Kips	235.90 Kips	1.14	1.08	1.08	1.38	1.31
	L3 - L4	L3 - L4	Tens.	143.7 Kips	92.20 Kips	235.90 Kips	1.14	1.08	1.08	1.38	1.31
	L4 - L5	L4 - L5	Tens.	169.4 Kips	113.40 Kips	282.80 Kips	1.11	1.04	1.04	1.34	1.26
	L5 - L6	L5 - L6	Tens.	169.4 Kips	113.40 Kips	282.80 Kips	1.11	1.04	1.04	1.34	1.26
	L6 - L5	L5 - L6	Tens.	169.4 Kips	113.40 Kips	282.80 Kips	1.11	1.04	1.04	1.34	1.26
	L5 - L4	L4 - L5	Tens.	169.4 Kips	113.40 Kips	282.80 Kips	1.11	1.04	1.04	1.34	1.26
	L4 - L3	L3 - L4	Tens.	143.7 Kips	92.20 Kips	235.90 Kips	1.14	1.08	1.08	1.38	1.31
	L3 - L2	L2 - L3	Tens.	143.7 Kips	92.20 Kips	235.90 Kips	1.14	1.08	1.08	1.38	1.31
	L2 - L1	L1 - L2	Tens.	83.5 Kips	61.20 Kips	144.70 Kips	1.46	1.32	1.32	1.77	1.60
	L1 - L0	L0 - L1	Tens.	83.5 Kips	61.20 Kips	144.70 Kips	1.46	1.32	1.32	1.77	1.60

			Unfactored Loads CL-625-ONT Lane			Inventory			Operating		
Member I.D. (per)		Loading Type	Truck for lane	Lane	Truck + Lane	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling
Plans	BAR7										
Upper Chord	U1 - U2	U1 - U2	Comp.	-124.7 Kips	-89.50 Kips	-214.20 Kips	1.61	1.46	1.46	1.94	1.77
	U2 - U3	U2 - U3	Comp.	-149.9 Kips	-108.50 Kips	-258.40 Kips	1.44	1.31	1.31	1.74	1.58
	U3 - U4	U3 - U4	Comp.	-149.9 Kips	-108.50 Kips	-258.40 Kips	1.44	1.31	1.31	1.74	1.58
	U4 - U5	U4 - U5	Comp.	-162.0 Kips	-120.20 Kips	-282.20 Kips	1.48	1.33	1.33	1.79	1.61
	U5 - U6	U5 - U6	Comp.	-162.0 Kips	-120.20 Kips	-282.20 Kips	1.48	1.33	1.33	1.79	1.61
	U6 - U5	U5 - U6	Comp.	-162.0 Kips	-120.20 Kips	-282.20 Kips	1.48	1.33	1.33	1.79	1.61
	U5 - U4	U4 - U5	Comp.	-162.0 Kips	-120.20 Kips	-282.20 Kips	1.48	1.33	1.33	1.79	1.61
	U4 - U3	U3 - U4	Comp.	-149.9 Kips	-108.50 Kips	-258.40 Kips	1.44	1.31	1.31	1.74	1.58
	U3 - U2	U2 - U3	Comp.	-149.9 Kips	-108.50 Kips	-258.40 Kips	1.44	1.31	1.31	1.74	1.58
	U2 - U1	U1 - U2	Comp.	-124.7 Kips	-89.50 Kips	-214.20 Kips	1.61	1.46	1.46	1.94	1.77

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
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Combine the unfactored load effects for the lane load and determine the controlling rating factors between truck loading and lane for the Canadian CL-625-ONT on the truss members. Load effects for the CL-625-ONT Lane were taken from the BAR7 analysis. The truss was analyzed by BAR7 to develop the load effects, however the program will not combine the truck load and lane load internally.

			Unfactored Loads CL-625-ONT Lane			Inventory			Operating			
Member I.D. (per)		Loading Type	Truck for lane	Lane	Truck + Lane	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling	
Plans	BAR7											
Verticals	U1 - L1	U1 - L1	Tens.	49.2 Kips	11.80 Kips	61.00 Kips	0.98	1.24	0.98	1.18	1.49	1.18
	U2 - L2	U2 - L2	Tens.	39.0 Kips	12.00 Kips	51.00 Kips	2.69	3.21	2.69	3.24	3.87	3.24
	U2 - L2	U2 - L2	Comp.	-29.5 Kips	-16.60 Kips	-46.10 Kips	2.70	2.70	2.70	3.26	3.26	3.26
	U3 - M3	U3 - M3		0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	M3 - L3	M3 - L3	Tens.	49.5 Kips	12.20 Kips	61.70 Kips	0.97	1.21	0.97	1.17	1.47	1.17
	U4 - L4	U4 - L4	Tens.	51.9 Kips	19.90 Kips	71.80 Kips	1.90	2.15	1.90	2.29	2.59	2.29
	U4 - L4	U4 - L4	Comp.	-25.6 Kips	-11.60 Kips	-37.20 Kips	2.92	3.14	2.92	3.53	3.80	3.53
	U5 - M5	U5 - M5		0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	M5 - L5	M5 - L5	Tens.	49.5 Kips	12.20 Kips	61.70 Kips	0.96	1.21	0.96	1.16	1.46	1.16
	U6 - L6	U6 - L6		0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	M5 - L5	M5 - L5	Tens.	49.5 Kips	12.20 Kips	61.70 Kips	0.96	1.21	0.96	1.16	1.46	1.16
	U5 - M5	U5 - M5		0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	U4 - L4	U4 - L4	Tens.	51.9 Kips	19.90 Kips	71.80 Kips	1.90	2.15	1.90	2.29	2.59	2.29
	U4 - L4	U4 - L4	Comp.	-25.6 Kips	-11.60 Kips	-37.20 Kips	2.92	3.14	2.92	3.53	3.80	3.53
	M3 - L3	M3 - L3	Tens.	49.5 Kips	12.20 Kips	61.70 Kips	0.97	1.21	0.97	1.17	1.47	1.17
	U3 - M3	U3 - M3		0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	U2 - L2	U2 - L2	Tens.	39.0 Kips	12.00 Kips	51.00 Kips	2.69	3.21	2.69	3.24	3.87	3.24
	U2 - L2	U2 - L2	Comp.	-29.5 Kips	-16.60 Kips	-46.10 Kips	2.70	2.69	2.69	3.26	3.25	3.25
	U1 - L1	U1 - L1	Tens.	49.2 Kips	11.80 Kips	61.00 Kips	0.98	1.24	0.98	1.18	1.49	1.18

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Combine the unfactored load effects for the lane load and determine the controlling rating factors between truck loading and lane for the Canadian CL-625-ONT on the truss members. Load effects for the CL-625-ONT Lane were taken from the BAR7 analysis. The truss was analyzed by BAR7 to develop the load effects, however the program will not combine the truck load and lane load internally.

				Unfactored Loads CL-625-ONT Lane			Inventory			Operating		
	Member I.D. (per)		Loading Type	Truck for lane	Lane	Truck + Lane	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling	CL-625-ONT Truck	CL-625-ONT Lane	CL-625-ONT Controlling
	Plans	BAR7										
Diagonals	L0 - U1	L0 - U1	Comp.	-123.7 Kips	-90.60 Kips	-214.30 Kips	1.97	1.78	1.78	2.38	2.15	2.15
	U1 - L2	U1 - L2	Tens.	53.9 Kips	35.50 Kips	89.40 Kips	1.38	1.29	1.29	1.66	1.56	1.56
	U1 - L2	U1 - L2	Comp.	-17.1 Kips	-3.40 Kips	-20.50 Kips	4.98	6.51	4.98	6.02	7.86	6.02
	L2 - M3	L2 - M3	Tens.	0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	L2 - M3	L2 - M3	Comp.	-43.1 Kips	-10.60 Kips	-53.70 Kips	1.14	1.43	1.14	1.38	1.73	1.38
	M3 - U2	M3 - U2	Tens.	64.8 Kips	37.20 Kips	102.00 Kips	1.27	1.26	1.26	1.54	1.53	1.53
	M3 - U2	M3 - U2	Comp.	-32.3 Kips	-9.00 Kips	-41.30 Kips	3.11	3.80	3.11	3.75	4.59	3.75
	M3 - L4	M3 - L4	Tens.	62.7 Kips	34.50 Kips	97.20 Kips	1.41	1.43	1.41	1.71	1.72	1.71
	M3 - L4	M3 - L4	Comp.	-55.6 Kips	-16.90 Kips	-72.50 Kips	1.71	2.05	1.71	2.07	2.48	2.07
	L4 - M5	L4 - M5	Tens.	0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	L4 - M5	L4 - M5	Comp.	-37.1 Kips	-9.20 Kips	-46.30 Kips	1.27	1.59	1.27	1.53	1.92	1.53
	M5 - U4	M5 - U4	Tens.	69.4 Kips	32.70 Kips	102.10 Kips	1.36	1.44	1.36	1.64	1.74	1.64
	M5 - U4	M5 - U4	Comp.	-40.6 Kips	-14.40 Kips	-55.00 Kips	2.36	2.73	2.36	2.85	3.29	2.85
	M5 - L6	M5 - L6	Tens.	65.3 Kips	29.70 Kips	95.00 Kips	1.52	1.63	1.52	1.84	1.97	1.84
	M5 - L6	M5 - L6	Comp.	-50.9 Kips	-20.50 Kips	-71.40 Kips	1.79	1.99	1.79	2.16	2.41	2.16
	M5 - L6	M5 - L6	Tens.	65.3 Kips	29.70 Kips	95.00 Kips	1.52	1.63	1.52	1.84	1.97	1.84
	M5 - L6	M5 - L6	Comp.	-50.9 Kips	-20.50 Kips	-71.40 Kips	1.79	1.99	1.79	2.16	2.41	2.16
	M5 - U4	M5 - U4	Tens.	69.4 Kips	32.70 Kips	102.10 Kips	1.36	1.44	1.36	1.64	1.74	1.64
	M5 - U4	M5 - U4	Comp.	-40.6 Kips	-14.40 Kips	-55.00 Kips	2.36	2.73	2.36	2.85	3.29	2.85
	L4 - M5	L4 - M5	Tens.	0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	L4 - M5	L4 - M5	Comp.	-37.1 Kips	-9.20 Kips	-46.30 Kips	1.27	1.59	1.27	1.53	1.92	1.53
	M3 - L4	M3 - L4	Tens.	62.7 Kips	34.50 Kips	97.20 Kips	1.41	1.43	1.41	1.71	1.72	1.71
	M3 - L4	M3 - L4	Comp.	-55.6 Kips	-16.90 Kips	-72.50 Kips	1.71	2.05	1.71	2.07	2.48	2.07
	M3 - U2	M3 - U2	Tens.	64.8 Kips	37.20 Kips	102.00 Kips	1.27	1.26	1.26	1.54	1.53	1.53
	M3 - U2	M3 - U2	Comp.	-32.3 Kips	-9.00 Kips	-41.30 Kips	3.11	3.80	3.11	3.75	4.59	3.75
	L2 - M3	L2 - M3	Tens.	0.0 Kips	0.00 Kips	0.00 Kips	999.00	999.00	999.00	999.00	999.00	999.00
	L2 - M3	L2 - M3	Comp.	-43.1 Kips	-10.60 Kips	-53.70 Kips	1.15	1.44	1.15	1.39	1.74	1.39
	U1 - L2	U1 - L2	Tens.	53.9 Kips	35.50 Kips	89.40 Kips	1.38	1.29	1.29	1.66	1.56	1.56
	U1 - L2	U1 - L2	Comp.	-17.1 Kips	-3.40 Kips	-20.50 Kips	4.98	6.51	4.98	6.02	7.86	6.02
	L0 - U1	L0 - U1	Comp.	-123.7 Kips	-90.60 Kips	-214.30 Kips	1.97	1.78	1.78	2.38	2.15	2.15

GUSSET PLATE LOAD RATING ANALYSIS

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 1 of __

Project: Madawaska Bridge Rating	Job No: 63738	Design Criteria Document: 1
Client: MaineDOT	Discipline: Structures	Calculation No: 1

Name or Description of Calculation: Madawaska Bridge Rating – Gusset Plate				
Calc. Rev. No.	Originator	Checker	Senior Technical Reviewer (if required)	Confirmation Required (Y/N)
1	James Anderson	Shane M. Zeller		

Calculation Objective:
Determine load ratings for the gusset plates of Madawaska Bridge.

Calculation Methodology/List of Assumptions:
The gusset plates were rated for the following vehicles:

- AASHTO HL-93
- Maine State Legal Loads
- CHBDC CL-625-ONT (Canadian Vehicle)

HNTB was requested to provide an update to the 2012 load rating performed by PARSONS BRINKERHOFF (PB). The revised ratings would consider the latest condition finding from HNTB's 2017 inspection and include the Canadian vehicle CL-625-ONT.

Per the scope, HNTB used the existing dead loads, existing HL-93 load effects, and gusset plate capacities from the 2012 PB rating. HNTB calculated load effects for the Canadian vehicle and legal loads as needed, and adjusted the gusset plate capacities using system factors and condition factors. The condition factors were based on the conditions found during the HNTB inspection. Using the revised gusset plate capacities and load effects, new rating values were calculated. HNTB was not scoped to calculate gusset plate properties based on section losses and gusset plate dimensions.

Based on the inspection, a condition factor of 0.95 was used for the gusset plates attached to the bottom chord and a condition factor of 1.0 was used for the gusset plates connected to mid points and the top chord. A system factor of 0.90 was used because the bridge is a riveted truss.

In calculating the ratings for the Canadian vehicle, the method agreed upon in the scope was to follow the MaineDOT load rating manual & AASHTO MBE with the exception that the CHBDC live load factors would be used. This include the multiple presence factor (0.9, 2 lane), dynamic load allowance factor (1.25 for truck, 1.0 lane), and live load factors (1.63 inv. & 1.35 oper.). The Canadian live load factors were based on selecting reliability indexes. The reliability indexes chosen for the ratings were 3.5 for inventory and 2.5 for operating based on AASHTO MBE C6A.1.3.

PennDOT's BAR7 program was used to rate the truss members. Following the truss member ratings with the load effects from BAR7, the load effects were exported to EXCEL and post processed to a usable format. Excel was used to combine the CL-625-ONT lane load with the CL-625-ONT truck because the truck and lane cannot be run together in BAR7. The data was used to determine if the lane load or truck controlled for the CL-625-ONT. EXCEL spread sheets were then developed to modify the existing member capacities and calculate new rating factors.

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 2 of __

References/Inputs:

Maine Department of Transportation load rating guide
AASHTO LRFD 2014 (2016 Interims)
AASHTO Manual for Bridge Evaluation (MBE) 2011 (2016 Interims)
BAR7 User Manual
Canadian Highway Bridge Design Code (CHBDC) S6-14

Attachments:

In-House Spreadsheet Calculations
BAR7 Output
2012 PB Load Rating References

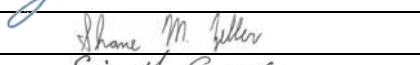
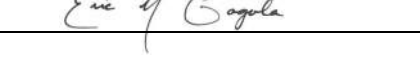
Conclusions:

See rating summary table.

Throughout the rating process, some gusset plate ratings from the PB report were found to be missing pertinent information:

- Panel Point L2, member U2-L2 had no compression capacity given for compression check. The live load effects are significantly higher than the dead load effect at this location. This element should be rated to verify adequate capacity.
- Panel Point L4, members M3-L4 & U4-L4 had no compression capacity given for compression check. The live load effects are significantly higher than the dead load effect at this location. These elements should be rated to verify adequate capacity.
- Panel Point L6, member M5-L6 had no compression capacity given for compression check. The live load effects are significantly higher than the dead load effect at this location. This element should be rated to verify adequate capacity.
- Panel Point U2, member U2-L2 had no compression capacity given for compression check. The live load effects are significantly higher than the dead load effect at this location. This element should be rated to verify adequate capacity.
- Panel Point U4, members U4-L4 & M5-U44 had no compression capacity given for compression check. The live load effects are significantly higher than the dead load effect at this location. These elements should be rated to verify adequate capacity.

For gusset plates M3 & M5, HNTB did not agree with how the horizontal shear loads were calculated. It is our opinion that the force effects should be calculated along parallel to the continuous member. HNTB calculated the load effects this way, but compared them to the PB capacity. In the future, the capacity along this line should be verified. It does not appear that the 2012 load rating considered unsupported edge checks. Future rating should consider the AASHTO MBE unsupported edge requirements.

Document Check:	Name	Signature	Date
Originator:	James Anderson		10/04/2017
Checker:	Eric Gogola		10/09/2017
BackChecker:	James Anderson		10/09/2017
Updater:	Shane M. Zeller		10/09/2017
Verifier:	Eric Gogola		10/09/2017

GUSSET RATING SUMMARY

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate Rating Summary

Gusset Plate Controlling Ratings				
Panel Point	HL-93		CL-625-ONT	
	Inv.	Oper.	Inv.	Oper.
L0	1.04	1.35	1.21	1.46
L1	1.62	2.10	1.76	2.13
L2	1.11	1.44	1.21	1.47
L3	1.59	2.07	1.74	2.10
L4	1.22	1.59	1.44	1.74
L5	1.59	2.06	1.73	2.09
L6	1.36	1.77	1.55	1.87
M3	1.06	1.37	1.16	1.40
M5	1.06	1.37	1.15	1.39
U1	1.08	1.40	1.17	1.42
U2	1.33	1.73	1.55	1.87
U4	1.26	1.63	1.39	1.68

UNFACTORED LOADS

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Summary of Unfactored Dead loads and HL93 with dynamic loading taken from the PB 2012 load rating report.

	Member I.D. (per)		Loading Type	Unfactored Loads	
	Plans	BAR7		Dead	HL-93+(IM)
Lower Chord	L0 - L1	L0 - L1	Tens.	133.3 Kips	141.08 Kips
	L1 - L2	L1 - L2	Tens.	133.3 Kips	141.08 Kips
	L2 - L3	L2 - L3	Tens.	201.1 Kips	239.54 Kips
	L3 - L4	L3 - L4	Tens.	201.1 Kips	239.54 Kips
	L4 - L5	L4 - L5	Tens.	249.6 Kips	278.17 Kips
	L5 - L6	L5 - L6	Tens.	249.6 Kips	278.17 Kips
	L6 - L5	L5 - L6	Tens.	249.6 Kips	278.17 Kips
	L5 - L4	L4 - L5	Tens.	249.6 Kips	278.17 Kips
	L4 - L3	L3 - L4	Tens.	201.1 Kips	239.54 Kips
	L3 - L2	L2 - L3	Tens.	201.1 Kips	239.54 Kips
	L2 - L1	L1 - L2	Tens.	133.3 Kips	141.08 Kips
	L1 - L0	L0 - L1	Tens.	133.3 Kips	141.08 Kips
Upper Chord	U1 - U2	U1 - U2	Comp.	-195.9 Kips	-206.01 Kips
	U2 - U3	U2 - U3	Comp.	-239.0 Kips	-248.13 Kips
	U3 - U4	U3 - U4	Comp.	-239.0 Kips	-248.13 Kips
	U4 - U5	U4 - U5	Comp.	-265.3 Kips	-273.78 Kips
	U5 - U6	U5 - U6	Comp.	-265.3 Kips	-273.78 Kips
	U6 - U5	U5 - U6	Comp.	-265.3 Kips	-273.78 Kips
	U5 - U4	U4 - U5	Comp.	-265.3 Kips	-273.78 Kips
	U4 - U3	U3 - U4	Comp.	-239.0 Kips	-248.13 Kips
	U3 - U2	U2 - U3	Comp.	-239.0 Kips	-248.13 Kips
	U2 - U1	U1 - U2	Comp.	-195.9 Kips	-206.01 Kips
Verticals	U1 - L1	U1 - L1	Tens.	18.5 Kips	69.92 Kips
	U2 - L2	U2 - L2	Comp.	-17.3 Kips	-45.83 Kips
	U2 - L2	U2 - L2	Tens.	0.0 Kips	57.76 Kips
	U3 - M3	U3 - M3		0.0 Kips	0.00 Kips
	M3 - L3	M3 - L3	Tens.	19.1 Kips	70.87 Kips
	U4 - L4	U4 - L4	Comp.	0.0 Kips	-37.72 Kips
	U4 - L4	U4 - L4	Tens.	10.9 Kips	72.65 Kips
	U5 - M5	U5 - M5		0.0 Kips	0.00 Kips
	M5 - L5	M5 - L5	Tens.	19.6 Kips	70.85 Kips
	U6 - L6	U6 - L6		0.0 Kips	0.00 Kips
	M5 - L5	M5 - L5	Tens.	19.6 Kips	70.85 Kips
	U5 - M5	U5 - M5		0.0 Kips	0.00 Kips
	U4 - L4	U4 - L4	Comp.	0.0 Kips	-37.74 Kips
	U4 - L4	U4 - L4	Tens.	10.9 Kips	72.64 Kips
	M3 - L3	M3 - L3	Tens.	19.1 Kips	70.87 Kips
	U3 - M3	U3 - M3		0.0 Kips	0.00 Kips
	U2 - L2	U2 - L2	Comp.	-17.4 Kips	-45.88 Kips
	U2 - L2	U2 - L2	Tens.	0.0 Kips	57.77 Kips
	U1 - L1	U1 - L1	Tens.	18.5 Kips	69.92 Kips

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Summary of Unfactored Dead loads and HL93 with dynamic loading taken from the PB 2012 load rating report.

	Member I.D. (per)		Loading Type	Unfactored Loads	
	Plans	BAR7		Dead	HL-93+(IM)
Diagonals	L0 - U1	L0 - U1	Comp.	-197.5 Kips	-209.06 Kips
	U1 - L2	U1 - L2	Comp.	0.0 Kips	-25.22 Kips
	U1 - L2	U1 - L2	Tens.	70.9 Kips	87.51 Kips
	L2 - M3	L2 - M3	Comp.	-22.3 Kips	-61.59 Kips
	L2 - M3	L2 - M3	Tens.	0.0 Kips	0.00 Kips
	M3 - U2	M3 - U2	Comp.	0.0 Kips	-47.51 Kips
	M3 - U2	M3 - U2	Tens.	63.5 Kips	99.51 Kips
	M3 - L4	M3 - L4	Comp.	0.0 Kips	-81.87 Kips
	M3 - L4	M3 - L4	Tens.	41.2 Kips	96.66 Kips
	L4 - M5	L4 - M5	Comp.	-20.0 Kips	-53.10 Kips
	L4 - M5	L4 - M5	Tens.	0.0 Kips	0.00 Kips
	M5 - U4	M5 - U4	Comp.	0.0 Kips	-57.09 Kips
	M5 - U4	M5 - U4	Tens.	41.0 Kips	100.44 Kips
	M5 - L6	M5 - L6	Comp.	0.0 Kips	-75.66 Kips
	M5 - L6	M5 - L6	Tens.	21.0 Kips	97.34 Kips
	M5 - L6	M5 - L6	Comp.	0.0 Kips	-75.66 Kips
	M5 - L6	M5 - L6	Tens.	21.0 Kips	97.34 Kips
	M5 - U4	M5 - U4	Comp.	0.0 Kips	-57.09 Kips
	M5 - U4	M5 - U4	Tens.	41.0 Kips	100.44 Kips
	L4 - M5	L4 - M5	Comp.	-20.0 Kips	-53.10 Kips
	L4 - M5	L4 - M5	Tens.	0.0 Kips	0.00 Kips
	M3 - L4	M3 - L4	Comp.	0.0 Kips	-81.86 Kips
	M3 - L4	M3 - L4	Tens.	41.2 Kips	96.73 Kips
	M3 - U2	M3 - U2	Comp.	0.0 Kips	-47.52 Kips
	M3 - U2	M3 - U2	Tens.	63.5 Kips	99.52 Kips
	L2 - M3	L2 - M3	Comp.	-22.3 Kips	-61.58 Kips
	L2 - M3	L2 - M3	Tens.	0.0 Kips	0.00 Kips
	U1 - L2	U1 - L2	Comp.	0.0 Kips	-25.22 Kips
	U1 - L2	U1 - L2	Tens.	70.9 Kips	87.51 Kips
	L0 - U1	L0 - U1	Comp.	-197.5 Kips	-209.06 Kips

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Combine the Unfactored load effects for the lane load and determine the controlling loading between truck loading and lane for the Canadian CL-625-ONT on the truss members. Load effects for the CL-625-ONT Lane were taken from the BAR7 analysis. The truss was analyzed by BAR7 to develop the load effects, however the program will not combine the truck load and lane load internally.

Dynamic load factor : 1.25 applies to Truck only, dynamic load factor for lane+truck

				Unfactored Loads CL-625-ONT					Controlling CL-625-ONT
Member I.D. (per)		Loading Type	Truck Only	Truck +IM	Truck for lane	Lane	Truck + Lane		
Plans	BAR7								
Lower Chord	L0 - L1	L0 - L1	Tens.	104.4 Kips	130.5 Kips	83.5 Kips	61.2 Kips	144.7 Kips	144.7 Kips
	L1 - L2	L1 - L2	Tens.	104.4 Kips	130.5 Kips	83.5 Kips	61.2 Kips	144.7 Kips	144.7 Kips
	L2 - L3	L2 - L3	Tens.	179.6 Kips	224.5 Kips	143.7 Kips	92.2 Kips	235.9 Kips	235.9 Kips
	L3 - L4	L3 - L4	Tens.	179.6 Kips	224.5 Kips	143.7 Kips	92.2 Kips	235.9 Kips	235.9 Kips
	L4 - L5	L4 - L5	Tens.	211.8 Kips	264.8 Kips	169.4 Kips	113.4 Kips	282.8 Kips	282.8 Kips
	L5 - L6	L5 - L6	Tens.	211.8 Kips	264.8 Kips	169.4 Kips	113.4 Kips	282.8 Kips	282.8 Kips
	L6 - L5	L5 - L6	Tens.	211.8 Kips	264.8 Kips	169.4 Kips	113.4 Kips	282.8 Kips	282.8 Kips
	L5 - L4	L4 - L5	Tens.	211.8 Kips	264.8 Kips	169.4 Kips	113.4 Kips	282.8 Kips	282.8 Kips
	L4 - L3	L3 - L4	Tens.	179.6 Kips	224.5 Kips	143.7 Kips	92.2 Kips	235.9 Kips	235.9 Kips
	L3 - L2	L2 - L3	Tens.	179.6 Kips	224.5 Kips	143.7 Kips	92.2 Kips	235.9 Kips	235.9 Kips
	L2 - L1	L1 - L2	Tens.	104.4 Kips	130.5 Kips	83.5 Kips	61.2 Kips	144.7 Kips	144.7 Kips
	L1 - L0	L0 - L1	Tens.	104.4 Kips	130.5 Kips	83.5 Kips	61.2 Kips	144.7 Kips	144.7 Kips
Upper Chord	U1 - U2	U1 - U2	Comp.	-155.9 Kips	-194.9 Kips	-124.7 Kips	-89.5 Kips	-214.2 Kips	-214.2 Kips
	U2 - U3	U2 - U3	Comp.	-187.4 Kips	-234.3 Kips	-149.9 Kips	-108.5 Kips	-258.4 Kips	-258.4 Kips
	U3 - U4	U3 - U4	Comp.	-187.4 Kips	-234.3 Kips	-149.9 Kips	-108.5 Kips	-258.4 Kips	-258.4 Kips
	U4 - U5	U4 - U5	Comp.	-202.5 Kips	-253.1 Kips	-162.0 Kips	-120.2 Kips	-282.2 Kips	-282.2 Kips
	U5 - U6	U5 - U6	Comp.	-202.5 Kips	-253.1 Kips	-162.0 Kips	-120.2 Kips	-282.2 Kips	-282.2 Kips
	U6 - U5	U5 - U6	Comp.	-202.5 Kips	-253.1 Kips	-162.0 Kips	-120.2 Kips	-282.2 Kips	-282.2 Kips
	U5 - U4	U4 - U5	Comp.	-202.5 Kips	-253.1 Kips	-162.0 Kips	-120.2 Kips	-282.2 Kips	-282.2 Kips
	U4 - U3	U3 - U4	Comp.	-187.4 Kips	-234.3 Kips	-149.9 Kips	-108.5 Kips	-258.4 Kips	-258.4 Kips
	U3 - U2	U2 - U3	Comp.	-187.4 Kips	-234.3 Kips	-149.9 Kips	-108.5 Kips	-258.4 Kips	-258.4 Kips
	U2 - U1	U1 - U2	Comp.	-155.9 Kips	-194.9 Kips	-124.7 Kips	-89.5 Kips	-214.2 Kips	-214.2 Kips
Verticals	U1 - L1	U1 - L1	Tens.	61.5 Kips	76.9 Kips	49.2 Kips	11.8 Kips	61.0 Kips	76.9 Kips
	U2 - L2	U2 - L2	Comp.	-36.8 Kips	-46.0 Kips	-29.5 Kips	-16.6 Kips	-46.1 Kips	-46.1 Kips
	U2 - L2	U2 - L2	Tens.	48.7 Kips	60.9 Kips	39.0 Kips	12.0 Kips	51.0 Kips	60.9 Kips
	U3 - M3	U3 - M3		0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	M3 - L3	M3 - L3	Tens.	62.0 Kips	77.5 Kips	49.5 Kips	12.2 Kips	61.7 Kips	77.5 Kips
	U4 - L4	U4 - L4	Comp.	-32.0 Kips	-40.0 Kips	-25.6 Kips	-11.6 Kips	-37.2 Kips	-40.0 Kips
	U4 - L4	U4 - L4	Tens.	64.9 Kips	81.1 Kips	51.9 Kips	19.9 Kips	71.8 Kips	81.1 Kips
	U5 - M5	U5 - M5		0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	M5 - L5	M5 - L5	Tens.	62.0 Kips	77.5 Kips	49.5 Kips	12.2 Kips	61.7 Kips	77.5 Kips
	U6 - L6	U6 - L6		0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	M5 - L5	M5 - L5	Tens.	62.0 Kips	77.5 Kips	49.5 Kips	12.2 Kips	61.7 Kips	77.5 Kips
	U5 - M5	U5 - M5		0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	U4 - L4	U4 - L4	Comp.	-32.0 Kips	-40.0 Kips	-25.6 Kips	-11.6 Kips	-37.2 Kips	-40.0 Kips
	U4 - L4	U4 - L4	Tens.	64.9 Kips	81.1 Kips	51.9 Kips	19.9 Kips	71.8 Kips	81.1 Kips
	M3 - L3	M3 - L3	Tens.	62.0 Kips	77.5 Kips	49.5 Kips	12.2 Kips	61.7 Kips	77.5 Kips
	U3 - M3	U3 - M3		0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	U2 - L2	U2 - L2	Comp.	-36.8 Kips	-46.0 Kips	-29.5 Kips	-16.6 Kips	-46.1 Kips	-46.1 Kips
	U2 - L2	U2 - L2	Tens.	48.7 Kips	60.9 Kips	39.0 Kips	12.0 Kips	51.0 Kips	60.9 Kips
	U1 - L1	U1 - L1	Tens.	61.5 Kips	76.9 Kips	49.2 Kips	11.8 Kips	61.0 Kips	76.9 Kips

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	9/28/17	Date	9/28/17	Date	9/29/17



Combine the Unfactored load effects for the lane load and determine the controlling loading between truck loading and lane for the Canadian CL-625-ONT on the truss members. Load effects for the CL-625-ONT Lane were taken from the BAR7 analysis. The truss was analyzed by BAR7 to develop the load effects, however the program will not combine the truck load and lane load internally.

			Unfactored Loads CL-625-ONT						
Member I.D. (per)		Loading Type	Truck Only	Truck +IM	Truck for lane	Lane	Truck + Lane	Controlling CL-625-ONT	
Plans	BAR7								
Diagonals	L0 - U1	L0 - U1	Comp.	-154.6 Kips	-193.3 Kips	-123.7 Kips	-90.6 Kips	-214.3 Kips	-214.3 Kips
	U1 - L2	U1 - L2	Comp.	-21.4 Kips	-26.8 Kips	-17.1 Kips	-3.4 Kips	-20.5 Kips	-26.8 Kips
	U1 - L2	U1 - L2	Tens.	67.3 Kips	84.1 Kips	53.9 Kips	35.5 Kips	89.4 Kips	89.4 Kips
	L2 - M3	L2 - M3	Comp.	-53.8 Kips	-67.3 Kips	-43.1 Kips	-10.6 Kips	-53.7 Kips	-67.3 Kips
	L2 - M3	L2 - M3	Tens.	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	M3 - U2	M3 - U2	Comp.	-40.4 Kips	-50.5 Kips	-32.3 Kips	-9.0 Kips	-41.3 Kips	-50.5 Kips
	M3 - U2	M3 - U2	Tens.	81.0 Kips	101.3 Kips	64.8 Kips	37.2 Kips	102.0 Kips	102.0 Kips
	M3 - L4	M3 - L4	Comp.	-69.5 Kips	-86.9 Kips	-55.6 Kips	-16.9 Kips	-72.5 Kips	-86.9 Kips
	M3 - L4	M3 - L4	Tens.	78.4 Kips	98.0 Kips	62.7 Kips	34.5 Kips	97.2 Kips	98.0 Kips
	L4 - M5	L4 - M5	Comp.	-46.4 Kips	-58.0 Kips	-37.1 Kips	-9.2 Kips	-46.3 Kips	-58.0 Kips
	L4 - M5	L4 - M5	Tens.	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	M5 - U4	M5 - U4	Comp.	-50.8 Kips	-63.5 Kips	-40.6 Kips	-14.4 Kips	-55.0 Kips	-63.5 Kips
	M5 - U4	M5 - U4	Tens.	86.8 Kips	108.5 Kips	69.4 Kips	32.7 Kips	102.1 Kips	108.5 Kips
	M5 - L6	M5 - L6	Comp.	-63.6 Kips	-79.5 Kips	-50.9 Kips	-20.5 Kips	-71.4 Kips	-79.5 Kips
	M5 - L6	M5 - L6	Tens.	81.6 Kips	102.0 Kips	65.3 Kips	29.7 Kips	95.0 Kips	102.0 Kips
	M5 - L6	M5 - L6	Comp.	-63.6 Kips	-79.5 Kips	-50.9 Kips	-20.5 Kips	-71.4 Kips	-79.5 Kips
	M5 - L6	M5 - L6	Tens.	81.6 Kips	102.0 Kips	65.3 Kips	29.7 Kips	95.0 Kips	102.0 Kips
	M5 - U4	M5 - U4	Comp.	-50.8 Kips	-63.5 Kips	-40.6 Kips	-14.4 Kips	-55.0 Kips	-63.5 Kips
	M5 - U4	M5 - U4	Tens.	86.8 Kips	108.5 Kips	69.4 Kips	32.7 Kips	102.1 Kips	108.5 Kips
	L4 - M5	L4 - M5	Comp.	-46.4 Kips	-58.0 Kips	-37.1 Kips	-9.2 Kips	-46.3 Kips	-58.0 Kips
	L4 - M5	L4 - M5	Tens.	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	M3 - L4	M3 - L4	Comp.	-69.5 Kips	-86.9 Kips	-55.6 Kips	-16.9 Kips	-72.5 Kips	-86.9 Kips
	M3 - L4	M3 - L4	Tens.	78.4 Kips	98.0 Kips	62.7 Kips	34.5 Kips	97.2 Kips	98.0 Kips
	M3 - U2	M3 - U2	Comp.	-40.4 Kips	-50.5 Kips	-32.3 Kips	-9.0 Kips	-41.3 Kips	-50.5 Kips
	M3 - U2	M3 - U2	Tens.	81.0 Kips	101.3 Kips	64.8 Kips	37.2 Kips	102.0 Kips	102.0 Kips
	L2 - M3	L2 - M3	Comp.	-53.8 Kips	-67.3 Kips	-43.1 Kips	-10.6 Kips	-53.7 Kips	-67.3 Kips
	L2 - M3	L2 - M3	Tens.	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips	0.0 Kips
	U1 - L2	U1 - L2	Comp.	-21.4 Kips	-26.8 Kips	-17.1 Kips	-3.4 Kips	-20.5 Kips	-26.8 Kips
	U1 - L2	U1 - L2	Tens.	67.3 Kips	84.1 Kips	53.9 Kips	35.5 Kips	89.4 Kips	89.4 Kips
	L0 - U1	L0 - U1	Comp.	-154.6 Kips	-193.3 Kips	-123.7 Kips	-90.6 Kips	-214.3 Kips	-214.3 Kips

RATING CALCULATIONS

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L0

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855
Adjustment Factor			1.00

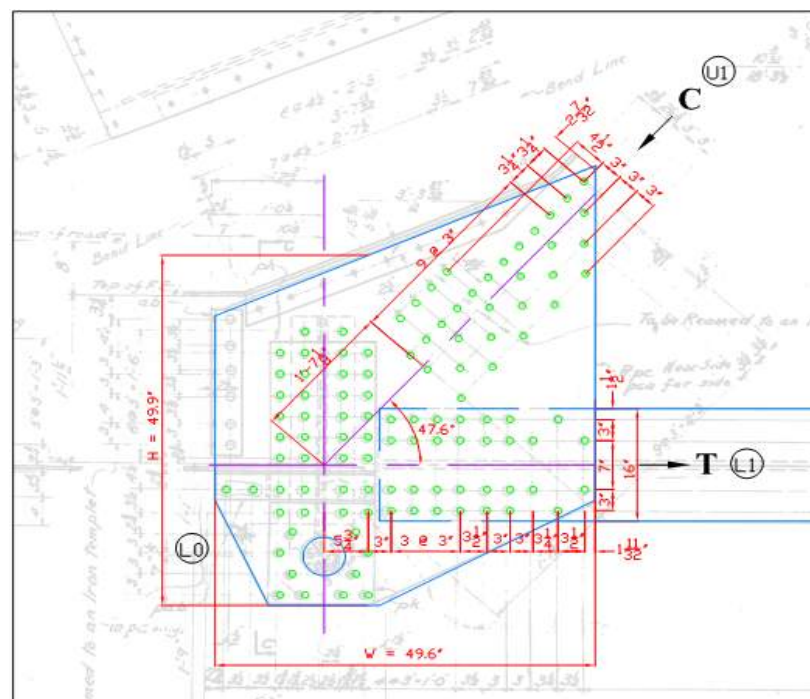
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L0

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Panel Point	Member	Unfactored Loading						Angle	Consider*
		Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**			
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L0	L0 - L1	0.0 Kips	133.3 Kips	0.00 Kips	141.08 Kips	0.0 Kips	144.7 Kips	0.0 degs	Yes
	L0 - U1	-197.5 Kips	0.0 Kips	-209.06 Kips	0.00 Kips	-214.3 Kips	0.0 Kips	47.6 degs	Yes

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L0 - L1	277.6 Kips	277.6 Kips	166.6 Kips	246.89 Kips	190.46 Kips	212.3 Kips	175.8 Kips	1.57	2.04	1.83	2.21
L0 - U1		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L0 - L1		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L0 - U1	-314.6 Kips	-314.6 Kips	-246.9 Kips	-365.86 Kips	-282.23 Kips	-314.4 Kips	-260.4 Kips	1.04	1.35	1.21	1.46

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L0

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Right Side of Gusset Vertical Shear Evaluation

Member **L0 - U1**

Consider **Yes**

Angle : **47.6 degs**

PB Capacity: **326.2 Kips**
Revised Capacity: **326.2 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	-197.5 Kips	0.0 Kips	-209.06 Kips	0.00 Kips	-214.3 Kips	0.0 Kips
Vert. frac.	-145.8 Kips	0.0 Kips	-154.38 Kips	0.00 Kips	-158.3 Kips	0.0 Kips
Horz. frac.	-133.2 Kips	0.0 Kips	-140.97 Kips	0.00 Kips	-144.5 Kips	0.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	-182.3 Kips	-270.17 Kips	-208.41 Kips	-232.2 Kips	-192.3 Kips	1.74	2.25	2.02	2.44
Tens.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L0

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Find Controlling load case

	Factored Loads Inventory				
	L0 - U1			Combined loading	
	Dc	HL-93+IM	CL-625-ONT	HL-93+IM	CL-625-ONT
Case-1	-166.5 Kips	0.00 Kips	0.0 Kips	166.5 Kips	166.5 Kips
Case-2	-166.5 Kips	-246.70 Kips	-212.0 Kips	413.2 Kips	378.5 Kips
Case-3	-166.5 Kips	-246.70 Kips	-212.0 Kips	413.2 Kips	378.5 Kips
Case-4	-166.5 Kips	0.00 Kips	0.0 Kips	166.5 Kips	166.5 Kips

413.2 Kips 378.5 Kips

Case-1 Left member Tension, Right member Tension

Case-2 Left member Tension, Right member Compression

Case-3 Left member Compression, Right member Compression

Case-4 Left member Compression, Right member Tension

PB Capacity : -324.2 Kips
Revised Capacity: -324.2 Kips

Dc	Factored Loads				Rating Factors			
	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
	Case-2		Case-2					
	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
-166.5 Kips	-246.70 Kips	-190.31 Kips	-212.0 Kips	-175.6 Kips	1.95	2.53	2.27	2.74

Controlling Rating Factors

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.04	1.35	1.21	1.46

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17

HNTB

Gusset Plate being Evaluated is Panel Point L1

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855

Adjustment Factor 1.00

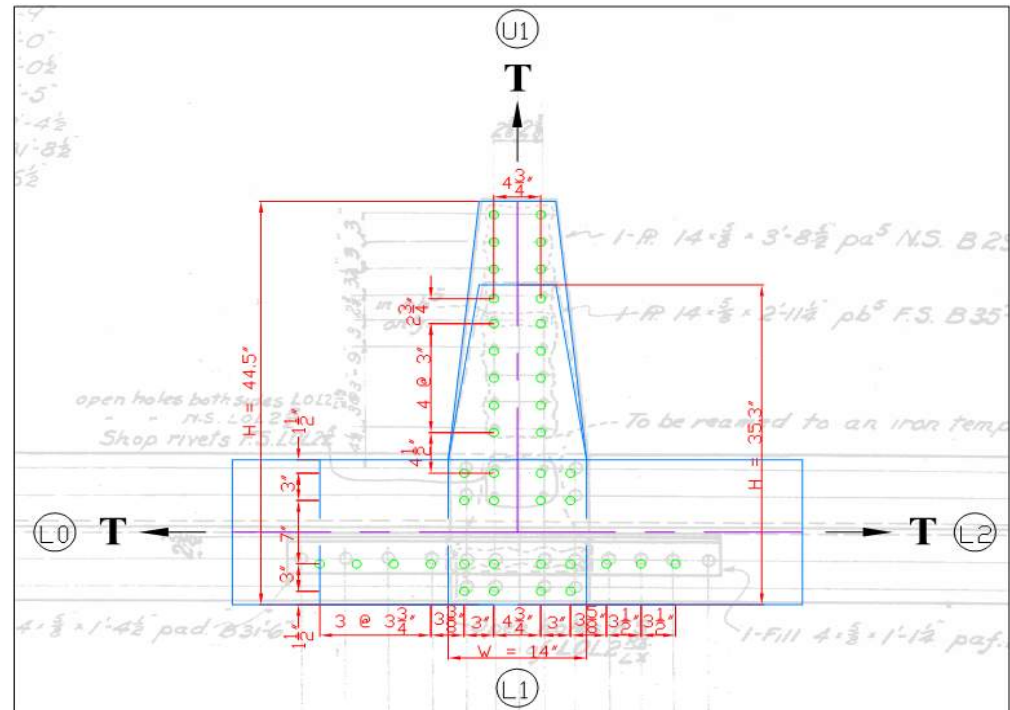
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L1

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading							
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L1	L0 - L1	0.0 Kips	133.3 Kips	0.00 Kips	141.08 Kips	0.0 Kips	144.7 Kips		No
	U1 - L1	0.0 Kips	18.5 Kips	0.00 Kips	69.92 Kips	0.0 Kips	76.9 Kips		Yes
	L1 - L2	0.0 Kips	133.3 Kips	0.00 Kips	141.08 Kips	0.0 Kips	144.7 Kips		No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Member	Capacities		Factored Loads						Rating Factors			
	PB, 2012	Revised	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT		
				Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	
L0 - L1		0.0 Kips	166.6 Kips	246.89 Kips	190.46 Kips	212.3 Kips	175.8 Kips	NA	NA	NA	NA	
U1 - L1	111.1 Kips	111.1 Kips	23.1 Kips	122.36 Kips	94.39 Kips	112.8 Kips	93.4 Kips	1.62	2.10	1.76	2.13	
L1 - L2		0.0 Kips	166.6 Kips	246.89 Kips	190.46 Kips	212.3 Kips	175.8 Kips	NA	NA	NA	NA	

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L0 - L1		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA
U1 - L1		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L1 - L2		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA

Controlling Rating Factors

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.62	2.10	1.76	2.13

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/2/17	Date	10/4/17	Date	10/5/17



Gusset Plate being Evaluated is Panel Point L2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855
	Adjustment Factor		1.00

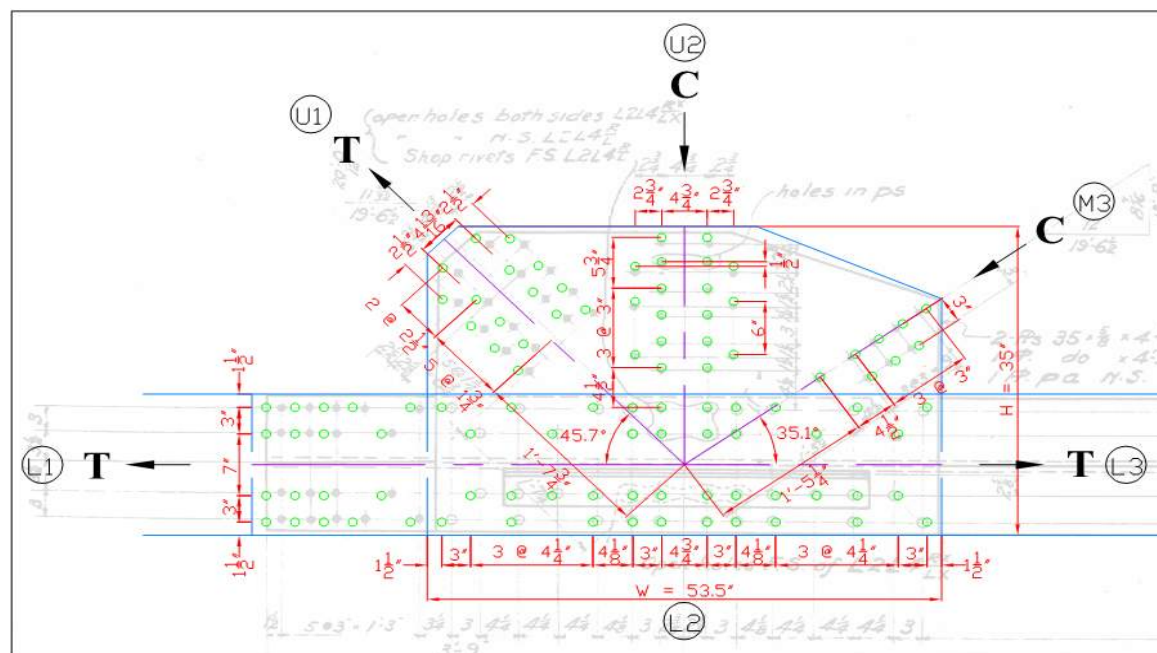
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/2/17	Date	10/4/17	Date	10/5/17



Gusset Plate being Evaluated is Panel Point L2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Panel Point		Unfactored Loading						Angle	Consider*
		Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**			
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L2	L1 - L2	0.0 Kips	133.3 Kips	0.00 Kips	141.08 Kips	0.0 Kips	144.7 Kips	0.0 degs	No
	U1 - L2	0.0 Kips	70.9 Kips	-25.22 Kips	87.51 Kips	-26.8 Kips	89.4 Kips	45.7 degs	Yes
	U2 - L2	-17.3 Kips	0.0 Kips	-45.83 Kips	57.76 Kips	-46.1 Kips	60.9 Kips	90.0 degs	Yes
	L2 - M3	-22.3 Kips	0.0 Kips	-61.59 Kips	0.00 Kips	-67.3 Kips	0.0 Kips	35.1 degs	Yes
	L2 - L3	0.0 Kips	201.1 Kips	0.00 Kips	239.54 Kips	0.0 Kips	235.9 Kips	0.0 degs	No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L1 - L2		0.0 Kips	166.6 Kips	246.89 Kips	190.46 Kips	212.3 Kips	175.8 Kips	NA	NA	NA	NA
U1 - L2	148.1 Kips	148.1 Kips	88.6 Kips	153.14 Kips	118.14 Kips	131.1 Kips	108.6 Kips	1.35	1.75	1.58	1.91
L2 - M3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L2 - L3		0.0 Kips	251.4 Kips	419.20 Kips	323.38 Kips	346.1 Kips	286.6 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L1 - L2		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA
U1 - L2	-70.9 Kips	-70.9 Kips	0.0 Kips	-44.14 Kips	-34.05 Kips	-39.2 Kips	-32.5 Kips	3.21	4.16	3.61	4.36
U2 - L2	-166.6 Kips	-166.6 Kips	-21.6 Kips	-80.20 Kips	-61.87 Kips	-67.6 Kips	-56.0 Kips	3.88	5.03	4.60	5.56
L2 - M3	-74.0 Kips	-74.0 Kips	-27.9 Kips	-107.78 Kips	-83.15 Kips	-98.7 Kips	-81.7 Kips	1.11	1.44	1.21	1.47
L2 - L3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA

Note: Member U1-L2 had no capacity value from PB 2012 rating, LL compression forces compared to DL tension load.

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/2/17	Date	10/4/17	Date	10/5/17



Gusset Plate being Evaluated is Panel Point L2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Left Side of Gusset Vertical Shear Evaluation

Member **U1 - L2** Consider **Yes** Angle : **45.7 degs**

PB Capacity: **228.8 Kips**
Revised Capacity: **228.8 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	0.0 Kips	70.9 Kips	-25.22 Kips	87.51 Kips	-26.8 Kips	89.4 Kips
Vert. frac.	0.0 Kips	50.7 Kips	-18.05 Kips	62.63 Kips	-19.1 Kips	64.0 Kips
Horz. frac.	0.0 Kips	49.5 Kips	-17.61 Kips	61.12 Kips	-18.7 Kips	62.4 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	0.0 Kips	-31.59 Kips	-24.37 Kips	-28.1 Kips	-23.3 Kips	14.48	18.77	16.29	19.67
Tens.	63.4 Kips	109.60 Kips	84.55 Kips	93.9 Kips	77.7 Kips	3.59	4.66	4.19	5.07

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right Side of Gusset Vertical Shear Evaluation

Member **L2 - M3** Consider **Yes** Angle : **35.1 degs**

PB Capacity: **228.8 Kips**
Revised Capacity: **228.8 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	-22.3 Kips	0.0 Kips	-61.59 Kips	0.00 Kips	-67.3 Kips	0.0 Kips
Vert. frac.	-12.8 Kips	0.0 Kips	-35.41 Kips	0.00 Kips	-38.7 Kips	0.0 Kips
Horz. frac.	-18.2 Kips	0.0 Kips	-50.39 Kips	0.00 Kips	-55.0 Kips	0.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	-16.0 Kips	-61.98 Kips	-47.81 Kips	-56.7 Kips	-47.0 Kips	7.12	9.23	7.78	9.39
Tens.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/2/17	Date	10/4/17	Date	10/5/17



Gusset Plate being Evaluated is Panel Point L2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Find Controlling load case

	Factored Loads Inventory							
	U1 - L2			L2 - M3			Combined loading	
	Dc	HL-93+IM	CL-625-ONT	Dc	HL-93+IM	CL-625-ONT	HL-93+IM	CL-625-ONT
Case-1	61.9 Kips	106.96 Kips	91.6 Kips	-22.8 Kips	0.00 Kips	0.0 Kips	191.7 Kips	176.3 Kips
Case-2	61.9 Kips	106.96 Kips	91.6 Kips	-22.8 Kips	-88.18 Kips	-80.7 Kips	279.8 Kips	257.0 Kips
Case-3	61.9 Kips	-30.82 Kips	-27.4 Kips	-22.8 Kips	-88.18 Kips	-80.7 Kips	142.1 Kips	138.0 Kips
Case-4	61.9 Kips	-30.82 Kips	-27.4 Kips	-22.8 Kips	0.00 Kips	0.0 Kips	53.9 Kips	57.3 Kips
							279.8 Kips	257.0 Kips

Case-1 Left member Tension, Right member Tension

Case-2 Left member Tension, Right member Compression

Case-3 Left member Compression, Right member Compression

Case-4 Left member Compression, Right member Tension

PB Capacity : 349.7 Kips
Revised Capacity: 349.7 Kips

Factored Loads					Rating Factors			
Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
	Case-2		Case-2					
	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
84.7 Kips	195.14 Kips	150.54 Kips	172.3 Kips	142.7 Kips	3.15	4.08	3.56	4.30

Controlling Rating Factors

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.11	1.44	1.21	1.47

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L3

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE
6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855

Adjustment Factor 1.00

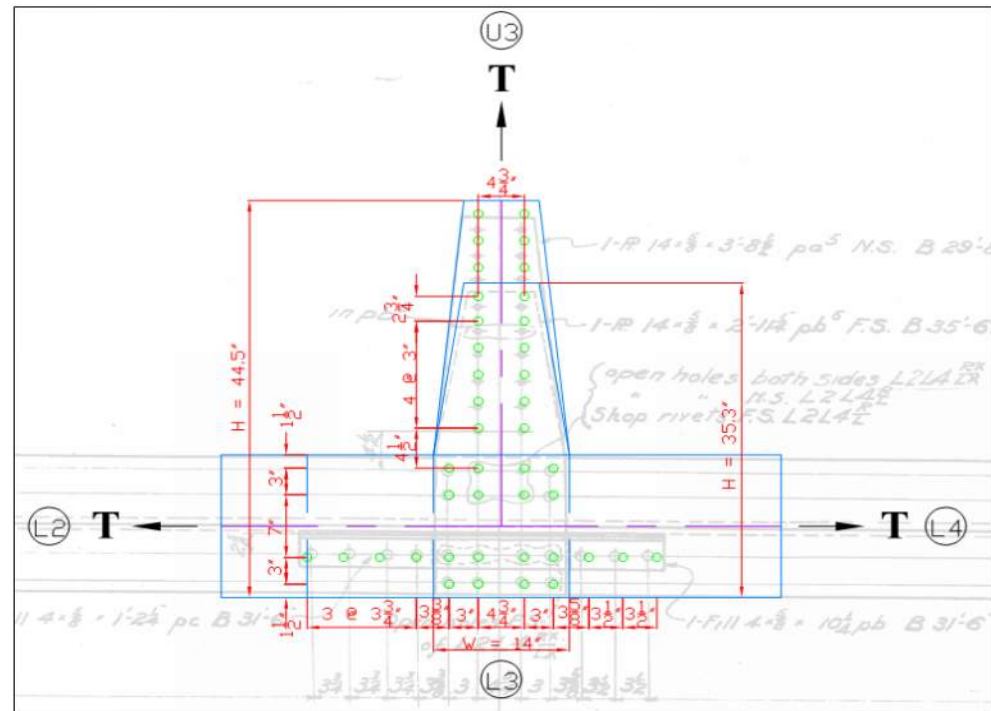
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway
Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L3

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading							
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L3	L2 - L3	0.0 Kips	201.1 Kips	0.00 Kips	239.54 Kips	0.0 Kips	235.9 Kips	0.0 degs	No
	M3 - L3	0.0 Kips	19.1 Kips	0.00 Kips	70.87 Kips	0.0 Kips	77.5 Kips	90.0 degs	Yes
	L3 - L4	0.0 Kips	201.1 Kips	0.00 Kips	239.54 Kips	0.0 Kips	235.9 Kips	0.0 degs	No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L2 - L3		0.0 Kips	251.4 Kips	419.20 Kips	323.38 Kips	346.1 Kips	286.6 Kips	NA	NA	NA	NA
M3 - L3	111.1 Kips	111.1 Kips	23.9 Kips	124.02 Kips	95.67 Kips	113.7 Kips	94.2 Kips	1.59	2.07	1.74	2.10
L3 - L4		0.0 Kips	251.4 Kips	419.20 Kips	323.38 Kips	346.1 Kips	286.6 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L2 - L3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA
M3 - L3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L3 - L4		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA

Controlling Rating Factors

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.59	2.07	1.74	2.10

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17

HNTB

Gusset Plate being Evaluated is Panel Point L4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855

Adjustment Factor 1.00

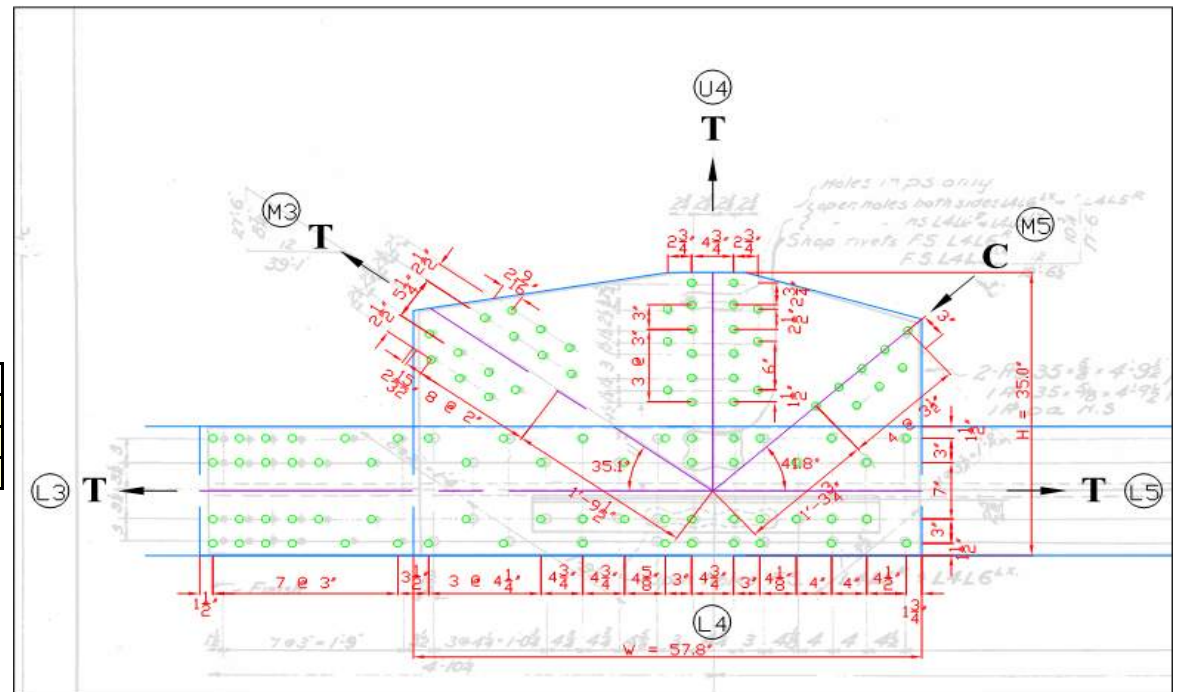
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading							
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L4	L3 - L4	0.0 Kips	201.1 Kips	0.00 Kips	239.54 Kips	0.0 Kips	235.9 Kips	0.0 degs	No
	M3 - L4	0.0 Kips	41.2 Kips	-81.87 Kips	96.66 Kips	-86.9 Kips	98.0 Kips	35.1 degs	Yes
	U4 - L4	0.0 Kips	10.9 Kips	-37.72 Kips	72.65 Kips	-40.0 Kips	81.1 Kips	90.0 degs	Yes
	L4 - M5	-20.0 Kips	0.0 Kips	-53.10 Kips	0.00 Kips	-58.0 Kips	0.0 Kips	41.8 degs	Yes
	L4 - L5	0.0 Kips	249.6 Kips	0.00 Kips	278.17 Kips	0.0 Kips	282.8 Kips	0.0 degs	No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L3 - L4		0.0 Kips	251.4 Kips	419.20 Kips	323.38 Kips	346.1 Kips	286.6 Kips	NA	NA	NA	NA
M3 - L4	129.6 Kips	129.6 Kips	51.5 Kips	169.16 Kips	130.49 Kips	143.8 Kips	119.1 Kips	1.22	1.59	1.44	1.74
U4 - L4	166.6 Kips	166.6 Kips	13.6 Kips	127.14 Kips	98.08 Kips	119.0 Kips	98.6 Kips	2.51	3.25	2.68	3.24
L4 - M5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L4 - L5		0.0 Kips	312.0 Kips	486.80 Kips	375.53 Kips	414.9 Kips	343.6 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L3 - L4		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA
L4 - M5	-74.0 Kips	-74.0 Kips	-25.0 Kips	-92.93 Kips	-71.69 Kips	-85.1 Kips	-70.5 Kips	1.32	1.71	1.44	1.74
L4 - L5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Left Side of Gusset Vertical Shear Evaluation

Member **M3 - L4** Consider **Yes** Angle : **35.1 degs**

PB Capacity: **228.8 Kips**
Revised Capacity: **228.8 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	0.0 Kips	41.2 Kips	-81.87 Kips	96.66 Kips	-86.9 Kips	98.0 Kips
Vert. frac.	0.0 Kips	23.7 Kips	-47.08 Kips	55.58 Kips	-50.0 Kips	56.4 Kips
Horz. frac.	0.0 Kips	33.7 Kips	-66.98 Kips	79.08 Kips	-71.1 Kips	80.2 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	0.0 Kips	-82.38 Kips	-63.55 Kips	-73.3 Kips	-60.7 Kips	5.55	7.20	6.24	7.53
Tens.	29.6 Kips	97.27 Kips	75.03 Kips	82.7 Kips	68.5 Kips	4.40	5.70	5.17	6.25

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right Side of Gusset Vertical Shear Evaluation

Member **L4 - M5** Consider **Yes** Angle : **41.8 degs**

PB Capacity: **228.8 Kips**
Revised Capacity: **228.8 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	-20.0 Kips	0.0 Kips	-53.10 Kips	0.00 Kips	-58.0 Kips	0.0 Kips
Vert. frac.	-13.3 Kips	0.0 Kips	-35.39 Kips	0.00 Kips	-38.7 Kips	0.0 Kips
Horz. frac.	-14.9 Kips	0.0 Kips	-39.58 Kips	0.00 Kips	-43.2 Kips	0.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	-16.7 Kips	-61.94 Kips	-47.78 Kips	-56.7 Kips	-47.0 Kips	7.11	9.22	7.77	9.38
Tens.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Find Controlling load case

	Factored Loads Inventory							
	M3 - L4			L4 - M5			Combined loading	
	Dc	HL-93+IM	CL-625-ONT	Dc	HL-93+IM	CL-625-ONT	HL-93+IM	CL-625-ONT
Case-1	42.1 Kips	138.39 Kips	117.6 Kips	-18.6 Kips	0.00 Kips	0.0 Kips	199.2 Kips	178.4 Kips
Case-2	42.1 Kips	138.39 Kips	117.6 Kips	-18.6 Kips	-69.27 Kips	-63.4 Kips	268.4 Kips	241.8 Kips
Case-3	42.1 Kips	-117.22 Kips	-104.3 Kips	-18.6 Kips	-69.27 Kips	-63.4 Kips	12.8 Kips	19.9 Kips
Case-4	42.1 Kips	-117.22 Kips	-104.3 Kips	-18.6 Kips	0.00 Kips	0.0 Kips	56.4 Kips	43.5 Kips
							268.4 Kips	241.8 Kips

Case-1 Left member Tension, Right member Tension

Case-2 Left member Tension, Right member Compression

Case-3 Left member Compression, Right member Compression

Case-4 Left member Compression, Right member Tension

PB Capacity : 377.8 Kips
Revised Capacity: 377.8 Kips

Factored Loads					Rating Factors			
Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
	Case-2		Case-2					
	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
60.8 Kips	207.67 Kips	160.20 Kips	181.1 Kips	150.0 Kips	3.34	4.33	3.83	4.63

Controlling Rating Factors

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.22	1.59	1.44	1.74

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17

HNTB

Gusset Plate being Evaluated is Panel Point L5

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855

Adjustment Factor 1.00

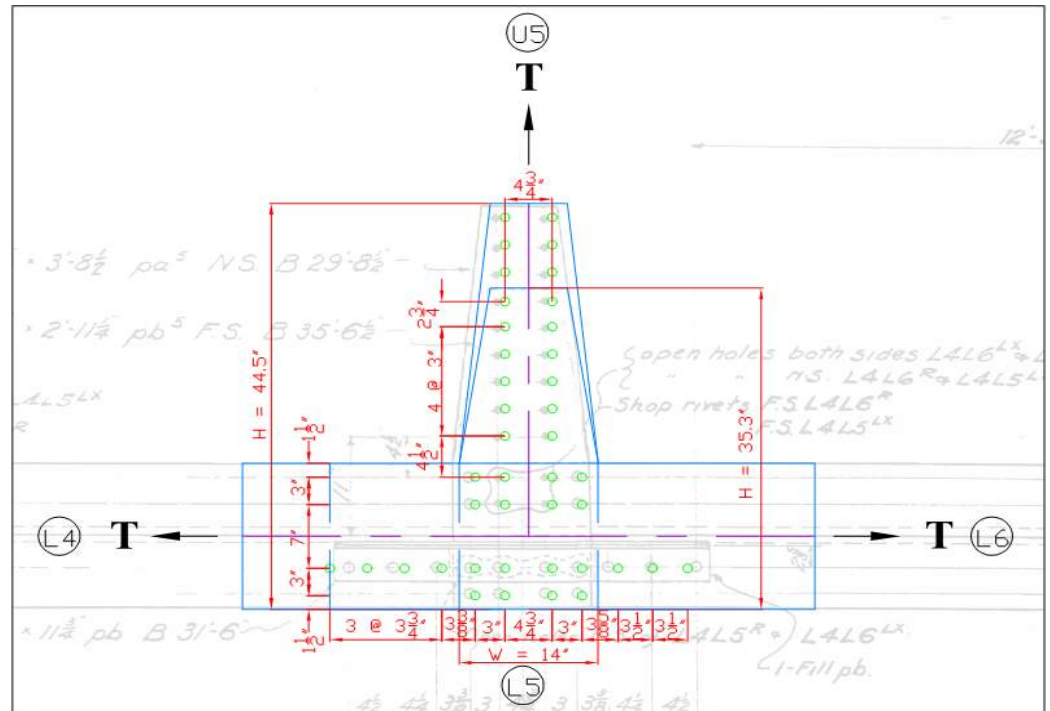
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L5

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading							
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L5	L4 - L5	0.0 Kips	249.6 Kips	0.00 Kips	278.17 Kips	0.0 Kips	282.8 Kips		No
	M5 - L5	0.0 Kips	19.6 Kips	0.00 Kips	70.85 Kips	0.0 Kips	77.5 Kips		Yes
	L5 - L6	0.0 Kips	249.6 Kips	0.00 Kips	278.17 Kips	0.0 Kips	282.8 Kips		No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L4 - L5		0.0 Kips	312.0 Kips	486.80 Kips	375.53 Kips	414.9 Kips	343.6 Kips	NA	NA	NA	NA
M5 - L5	111.1 Kips	111.1 Kips	24.5 Kips	123.99 Kips	95.65 Kips	113.7 Kips	94.2 Kips	1.59	2.06	1.73	2.09
L5 - L6		0.0 Kips	312.0 Kips	486.80 Kips	375.53 Kips	414.9 Kips	343.6 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L4 - L5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA
M5 - L5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L5 - L6		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA

Controlling Rating Factors

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.59	2.06	1.73	2.09

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L6

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE
6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	0.95	0.855
	Adjustment Factor		1.00

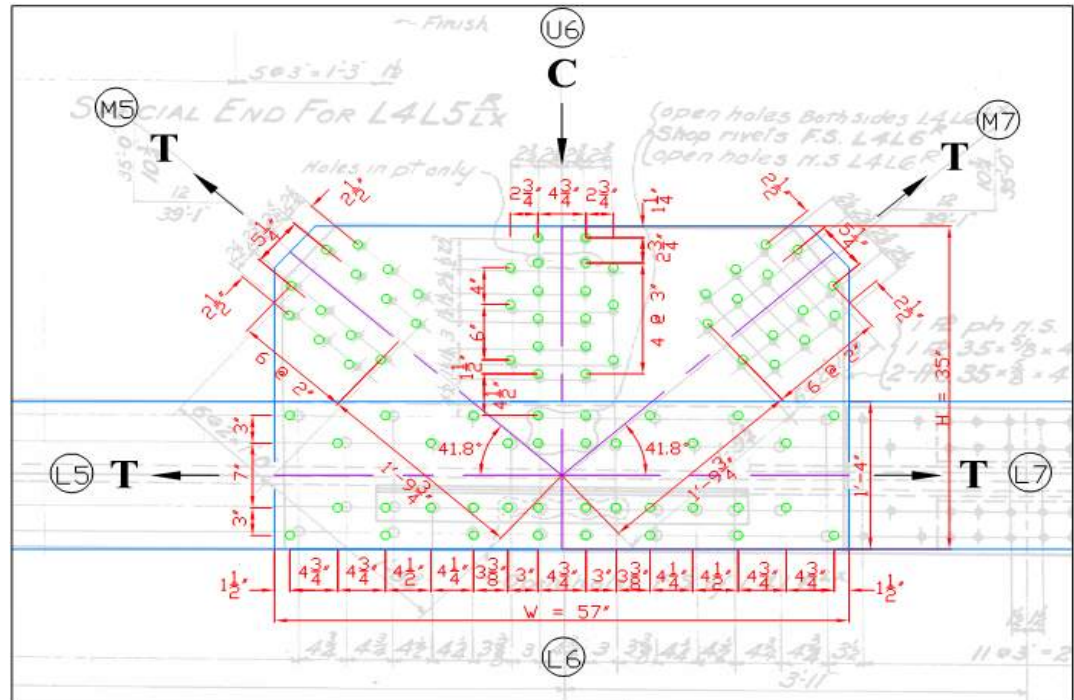
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway
Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L6

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading							
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
L6	L5 - L6	0.0 Kips	249.6 Kips	0.00 Kips	278.17 Kips	0.0 Kips	282.8 Kips	0.0 degs	No
	M5 - L6	0.0 Kips	21.0 Kips	-75.66 Kips	97.34 Kips	-79.5 Kips	102.0 Kips	41.8 degs	Yes
	U6 - L6	0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	90.0 degs	Yes
	M5 - L6	0.0 Kips	21.0 Kips	-75.66 Kips	97.34 Kips	-79.5 Kips	102.0 Kips	41.8 degs	Yes
	L6 - L5	0.0 Kips	249.6 Kips	0.00 Kips	278.17 Kips	0.0 Kips	282.8 Kips	0.0 degs	No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Member	Capacities		Factored Loads					Rating Factors			
	PB, 2012	Revised	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
				Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L5 - L6		0.0 Kips	312.0 Kips	486.80 Kips	375.53 Kips	414.9 Kips	343.6 Kips	NA	NA	NA	NA
M5 - L6	129.6 Kips	129.6 Kips	26.3 Kips	170.35 Kips	131.41 Kips	149.6 Kips	123.9 Kips	1.36	1.77	1.55	1.87
U6 - L6		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M5 - L6	129.6 Kips	129.6 Kips	26.3 Kips	170.35 Kips	131.41 Kips	149.6 Kips	123.9 Kips	1.36	1.77	1.55	1.87
L6 - L5		0.0 Kips	312.0 Kips	486.80 Kips	375.53 Kips	414.9 Kips	343.6 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Member	Capacities		Factored Loads					Rating Factors			
	PB, 2012	Revised	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
				Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L5 - L6		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA
U6 - L6		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
L6 - L5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	NA	NA	NA	NA

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L6

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Left Side of Gusset Vertical Shear Evaluation

Member **M5 - L6** Consider **Yes** Angle : **41.8 degs**

PB Capacity: **228.8 Kips**
Revised Capacity: **228.8 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	0.0 Kips	21.0 Kips	-75.66 Kips	97.34 Kips	-79.5 Kips	102.0 Kips
Vert. frac.	0.0 Kips	14.0 Kips	-50.43 Kips	64.88 Kips	-53.0 Kips	68.0 Kips
Horz. frac.	0.0 Kips	15.7 Kips	-56.40 Kips	72.56 Kips	-59.3 Kips	76.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	0.0 Kips	-88.25 Kips	-68.08 Kips	-77.7 Kips	-64.4 Kips	5.18	6.72	5.88	7.10
Tens.	17.5 Kips	113.54 Kips	87.59 Kips	99.7 Kips	82.6 Kips	3.87	5.02	4.41	5.32

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right Side of Gusset Vertical Shear Evaluation

Member **M5 - L6** Consider **Yes** Angle : **41.8 degs**

PB Capacity: **228.8 Kips**
Revised Capacity: **228.8 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	0.0 Kips	21.0 Kips	-75.66 Kips	97.34 Kips	-79.5 Kips	102.0 Kips
Vert. frac.	0.0 Kips	14.0 Kips	-50.43 Kips	64.88 Kips	-53.0 Kips	68.0 Kips
Horz. frac.	0.0 Kips	15.7 Kips	-56.40 Kips	72.56 Kips	-59.3 Kips	76.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	0.0 Kips	-88.25 Kips	-68.08 Kips	-77.7 Kips	-64.4 Kips	5.18	6.72	5.88	7.10
Tens.	17.5 Kips	113.54 Kips	87.59 Kips	99.7 Kips	82.6 Kips	3.87	5.02	4.41	5.32

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point L6

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Find Controlling load case

	Factored Loads Inventory							
	M5 - L6			M5 - L6			Combined loading	
	Dc	HL-93+IM	CL-625-ONT	Dc	HL-93+IM	CL-625-ONT	HL-93+IM	CL-625-ONT
Case-1	19.6 Kips	126.99 Kips	111.5 Kips	19.6 Kips	126.99 Kips	111.5 Kips	0.0 Kips	0.0 Kips
Case-2	19.6 Kips	126.99 Kips	111.5 Kips	19.6 Kips	-98.70 Kips	-86.9 Kips	225.7 Kips	198.5 Kips
Case-3	19.6 Kips	-98.70 Kips	-86.9 Kips	19.6 Kips	-98.70 Kips	-86.9 Kips	0.0 Kips	0.0 Kips
Case-4	19.6 Kips	-98.70 Kips	-86.9 Kips	19.6 Kips	126.99 Kips	111.5 Kips	225.7 Kips	198.5 Kips

Case-1 Left member Tension, Right member Tension

Case-2 Left member Tension, Right member Compression

Case-3 Left member Compression, Right member Compression

Case-4 Left member Compression, Right member Tension

PB Capacity : 372.6 Kips
Revised Capacity: 372.6 Kips

Factored Loads					Rating Factors			
Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
	Case-2		Case-2					
	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
0.0 Kips	225.69 Kips	174.11 Kips	198.5 Kips	164.4 Kips	3.30	4.28	3.75	4.53

Controlling Rating Factors

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.36	1.77	1.55	1.87

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point M3

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading							
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
M3	M3 - U2	0.0 Kips	63.5 Kips	-47.51 Kips	99.51 Kips	-50.5 Kips	102.0 Kips	0.0 degs	No
	L2 - M3	-22.3 Kips	0.0 Kips	-61.59 Kips	0.00 Kips	-67.3 Kips	0.0 Kips	70.2 degs	Yes
	M3 - L3	0.0 Kips	19.1 Kips	0.00 Kips	70.87 Kips	0.0 Kips	77.5 Kips	54.9 degs	Yes
	U3 - M3	0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	54.9 degs	Yes
	M3 - L4	0.0 Kips	41.2 Kips	-81.87 Kips	96.66 Kips	-86.9 Kips	98.0 Kips	0.0 degs	No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Member	Capacities		Factored Loads					Rating Factors			
	PB, 2012	Revised	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
				Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
M3 - U2		0.0 Kips	79.4 Kips	174.14 Kips	134.34 Kips	149.6 Kips	123.9 Kips	NA	NA	NA	NA
L2 - M3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M3 - L3	74.0 Kips	77.9 Kips	23.9 Kips	124.02 Kips	95.67 Kips	113.7 Kips	94.2 Kips	1.06	1.37	1.16	1.40
U3 - M3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M3 - L4		0.0 Kips	51.5 Kips	169.16 Kips	130.49 Kips	143.8 Kips	119.1 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Member	Capacities		Factored Loads					Rating Factors			
	PB, 2012	Revised	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
				Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
M3 - U2		0.0 Kips	0.0 Kips	-83.14 Kips	-64.14 Kips	-74.1 Kips	-61.4 Kips	NA	NA	NA	NA
L2 - M3	-74.0 Kips	-77.9 Kips	-27.9 Kips	-107.78 Kips	-83.15 Kips	-98.7 Kips	-81.7 Kips	1.18	1.53	1.29	1.56
M3 - L3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
U3 - M3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M3 - L4		0.0 Kips	0.0 Kips	-143.27 Kips	-110.52 Kips	-127.4 Kips	-105.6 Kips	NA	NA	NA	NA

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17

HNTB

Gusset Plate being Evaluated is Panel Point M3

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Left Side of Gusset Vertical Shear Evaluation

Member **L2 - M3** Consider **Yes** Angle : **70.2 degs**

PB Capacity: **161.2 Kips**
Revised Capacity: **169.7 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	-22.3 Kips	0.0 Kips	-61.59 Kips	0.00 Kips	-67.3 Kips	0.0 Kips
Vert. frac.	-21.0 Kips	0.0 Kips	-57.95 Kips	0.00 Kips	-63.3 Kips	0.0 Kips
Horz. frac.	-7.6 Kips	0.0 Kips	-20.86 Kips	0.00 Kips	-22.8 Kips	0.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	-26.2 Kips	-101.41 Kips	-78.23 Kips	-92.8 Kips	-76.9 Kips	3.08	4.00	3.37	4.07
Tens.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right Side of Gusset Vertical Shear Evaluation

Member **M3 - L3** Consider **Yes** Angle : **54.9 degs**

PB Capacity: **161.2 Kips**
Revised Capacity: **169.7 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	0.0 Kips	19.1 Kips	0.00 Kips	70.87 Kips	0.0 Kips	77.5 Kips
Vert. frac.	0.0 Kips	15.6 Kips	0.00 Kips	57.98 Kips	0.0 Kips	63.4 Kips
Horz. frac.	0.0 Kips	11.0 Kips	0.00 Kips	40.75 Kips	0.0 Kips	44.6 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
Tens.	19.5 Kips	101.47 Kips	78.28 Kips	93.0 Kips	77.0 Kips	3.15	4.08	3.43	4.15

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point M3

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Find Controlling load case

	Factored Loads Inventory							
	L2 - M3			M3 - L3			Combined loading	
	Dc	HL-93+IM	CL-625-ONT	Dc	HL-93+IM	CL-625-ONT	HL-93+IM	CL-625-ONT
Case-1	-9.4 Kips	0.00 Kips	0.0 Kips	13.7 Kips	71.31 Kips	65.4 Kips	94.5 Kips	88.5 Kips
Case-2	-9.4 Kips	0.00 Kips	0.0 Kips	13.7 Kips	0.00 Kips	0.0 Kips	23.2 Kips	23.2 Kips
Case-3	-9.4 Kips	-36.51 Kips	-33.4 Kips	13.7 Kips	0.00 Kips	0.0 Kips	59.7 Kips	56.6 Kips
Case-4	-9.4 Kips	-36.51 Kips	-33.4 Kips	13.7 Kips	71.31 Kips	65.4 Kips	131.0 Kips	122.0 Kips
							131.0 Kips	122.0 Kips

Case-1 Left member Tension, Right member Tension

Case-2 Left member Tension, Right member Compression

Case-3 Left member Compression, Right member Compression

Case-4 Left member Compression, Right member Tension

PB Capacity : -97.3 Kips
Revised Capacity: -102.4 Kips

Factored Loads					Rating Factors			
Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
	Case-4		Case-4					
	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
-23.2 Kips	-107.82 Kips	-83.18 Kips	-98.8 Kips	-81.8 Kips	1.68	2.18	1.83	2.22

Controlling Rating Factors

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.06	1.37	1.16	1.40

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point M5

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	1.00	0.9

Adjustment Factor 1.05

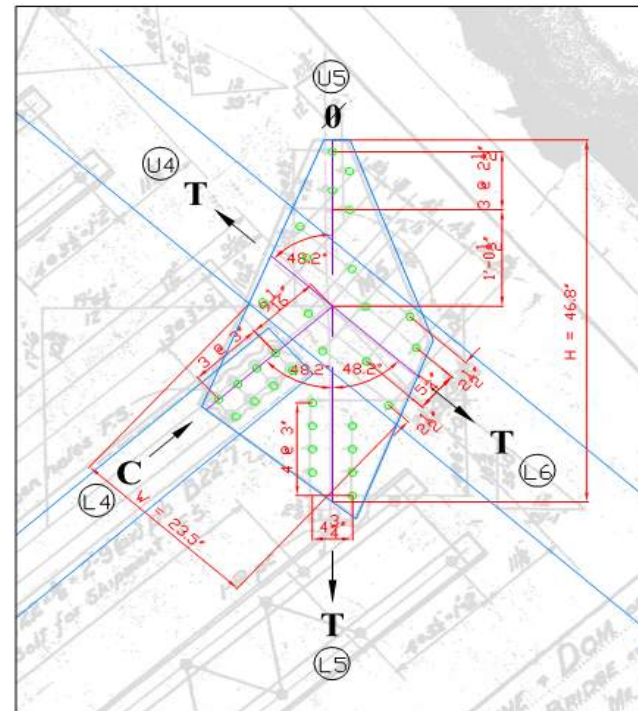
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point M5

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Panel Point	Member	Unfactored Loading							
		Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle	Consider*
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.		
M5	M5 - U4	0.0 Kips	41.0 Kips	0.00 Kips	100.44 Kips	-63.5 Kips	108.5 Kips	0.0 degs	No
	L4 - M5	-20.0 Kips	0.0 Kips	-53.10 Kips	0.00 Kips	-58.0 Kips	0.0 Kips	83.6 degs	Yes
	M5 - L5	0.0 Kips	19.6 Kips	0.00 Kips	70.85 Kips	0.0 Kips	77.5 Kips	48.2 degs	Yes
	U5 - M5	0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	48.2 degs	Yes
	M5 - L6	0.0 Kips	21.0 Kips	-75.66 Kips	97.34 Kips	-79.5 Kips	102.0 Kips	0.0 degs	No

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
M5 - U4		0.0 Kips	51.3 Kips	175.77 Kips	135.59 Kips	159.2 Kips	131.8 Kips	NA	NA	NA	NA
L4 - M5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M5 - L5	74.0 Kips	77.9 Kips	24.5 Kips	123.99 Kips	95.65 Kips	113.7 Kips	94.2 Kips	1.06	1.37	1.15	1.39
U5 - M5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M5 - L6		0.0 Kips	26.3 Kips	170.35 Kips	131.41 Kips	149.6 Kips	123.9 Kips	NA	NA	NA	NA

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
M5 - U4		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	-93.2 Kips	-77.2 Kips	NA	NA	NA	NA
L4 - M5	-74.0 Kips	-77.9 Kips	-25.0 Kips	-92.93 Kips	-71.69 Kips	-85.1 Kips	-70.5 Kips	1.40	1.82	1.53	1.85
M5 - L5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
U5 - M5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
M5 - L6		0.0 Kips	0.0 Kips	-132.41 Kips	-102.14 Kips	-116.6 Kips	-96.6 Kips	NA	NA	NA	NA

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point M5

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Left Side of Gusset Vertical Shear Evaluation

Member **L4 - M5** Consider **Yes** Angle : **83.6 degs**

PB Capacity: **183.5 Kips**
Revised Capacity: **193.2 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	-20.0 Kips	0.0 Kips	-53.10 Kips	0.00 Kips	-58.0 Kips	0.0 Kips
Vert. frac.	-19.9 Kips	0.0 Kips	-52.77 Kips	0.00 Kips	-57.6 Kips	0.0 Kips
Horz. frac.	-2.2 Kips	0.0 Kips	-5.92 Kips	0.00 Kips	-6.5 Kips	0.0 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	-24.8 Kips	-92.35 Kips	-71.24 Kips	-84.6 Kips	-70.0 Kips	3.91	5.07	4.27	5.16
Tens.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right Side of Gusset Vertical Shear Evaluation

Member **M5 - L5** Consider **Yes** Angle : **48.2 degs**

PB Capacity: **183.5 Kips**
Revised Capacity: **193.2 Kips**

	Unfactored Loading					
	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
	Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
Axial	0.0 Kips	19.6 Kips	0.00 Kips	70.85 Kips	0.0 Kips	77.5 Kips
Vert. frac.	0.0 Kips	14.6 Kips	0.00 Kips	52.82 Kips	0.0 Kips	57.8 Kips
Horz. frac.	0.0 Kips	13.1 Kips	0.00 Kips	47.22 Kips	0.0 Kips	51.7 Kips

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Comp.	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
Tens.	18.3 Kips	92.43 Kips	71.30 Kips	84.8 Kips	70.2 Kips	3.98	5.16	4.34	5.24

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point M5

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Find Controlling load case

	Factored Loads Inventory							
	L4 - M5			M5 - L5			Combined loading	
	Dc	HL-93+IM	CL-625-ONT	Dc	HL-93+IM	CL-625-ONT	HL-93+IM	CL-625-ONT
Case-1	-2.8 Kips	0.00 Kips	0.0 Kips	16.3 Kips	82.64 Kips	75.8 Kips	101.8 Kips	94.9 Kips
Case-2	-2.8 Kips	0.00 Kips	0.0 Kips	16.3 Kips	0.00 Kips	0.0 Kips	19.1 Kips	19.1 Kips
Case-3	-2.8 Kips	-10.36 Kips	-9.5 Kips	16.3 Kips	0.00 Kips	0.0 Kips	29.5 Kips	28.6 Kips
Case-4	-2.8 Kips	-10.36 Kips	-9.5 Kips	16.3 Kips	82.64 Kips	75.8 Kips	112.1 Kips	104.4 Kips
							112.1 Kips	104.4 Kips

Case-1 Left member Tension, Right member Tension

Case-2 Left member Tension, Right member Compression

Case-3 Left member Compression, Right member Compression

Case-4 Left member Compression, Right member Tension

PB Capacity : -92.2 Kips
Revised Capacity: -97.1 Kips

Factored Loads					Rating Factors			
Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
	Case-4		Case-4					
	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
-19.1 Kips	-93.00 Kips	-71.74 Kips	-85.3 Kips	-70.6 Kips	1.88	2.43	2.05	2.47

Controlling Rating Factors

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.06	1.37	1.15	1.39

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U1

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading								
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle (vert)	Angle (Horz.)	Consider*
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.			
U1	L0 - U1	-197.5 Kips	0.0 Kips	-209.06 Kips	0.00 Kips	-214.3 Kips	0.0 Kips	42.4 degs	63.4 degs	Yes
	U1 - L1	0.0 Kips	18.5 Kips	0.00 Kips	69.92 Kips	0.0 Kips	76.9 Kips	0.0 degs	21.0 degs	Yes
	U1 - L2	0.0 Kips	70.9 Kips	-25.22 Kips	87.51 Kips	-26.8 Kips	89.4 Kips	44.3 degs	23.3 degs	Yes
	U1 - U2	-195.9 Kips	0.0 Kips	-206.01 Kips	0.00 Kips	-214.2 Kips	0.0 Kips	21.0 degs	0.0 degs	Yes

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L0 - U1		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
U1 - L1	74.0 Kips	77.9 Kips	23.1 Kips	122.36 Kips	94.39 Kips	112.8 Kips	93.4 Kips	1.08	1.40	1.17	1.42
U1 - L2	148.1 Kips	155.9 Kips	88.6 Kips	153.14 Kips	118.14 Kips	131.1 Kips	108.6 Kips	1.45	1.88	1.70	2.05
U1 - U2		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

		Capacities		Factored Loads					Rating Factors			
Member	% Force*			Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
L0 - U1	66%	-397.9 Kips	-418.8 Kips	-162.9 Kips	-241.46 Kips	-186.27 Kips	-207.5 Kips	-171.8 Kips	2.79	3.62	3.25	3.92
U1 - L1	100%		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
U1 - L2	100%	-70.9 Kips	-74.6 Kips	0.0 Kips	-44.14 Kips	-34.05 Kips	-39.2 Kips	-32.5 Kips	3.38	4.38	3.80	4.59
U1 - U2	66%	-305.4 Kips	-321.5 Kips	-161.6 Kips	-237.94 Kips	-183.55 Kips	-207.4 Kips	-171.8 Kips	2.02	2.62	2.32	2.80

*Enter percentage of force that gusset plate takes from member.

Note: Member U1-L2 had no capacity value from PB 2012 rating, LL compression forces compared to DL tension load.

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U1

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Vertical Shear Evaluation

			Vector Function	Unfactored Loading						Shear side
				Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT		
Member	% Force*	Angle (vert)		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.	
L0 - U1	-33%	42.4 degs	COS	48.3 Kips	0.0 Kips	51.14	0.00	52.4 Kips	0.0 Kips	Left
U1 - L1	0%	0.0 degs	COS	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips	NA
U1 - L2	-50%	44.3 degs	COS	0.0 Kips	-25.4 Kips	9.02	-31.32	9.6 Kips	-32.0 Kips	Right
U1 - U2	33%	21.0 degs	SIN	-23.2 Kips	0.0 Kips	-24.44	0.00	-25.4 Kips	0.0 Kips	Right

*Enter negative or positive values to align resulting forces, so that positive values are up relative to vertical and negative values are down relative to vertical. % Force is the amount of force assumed to be applied to each gusset plate. For chord members, PB assumed that some force was transferred by the top splice plate. The percentage used matches what PB used in the 2012 rating.

PB Capacity: 198.1 Kips

Revised Capacity: 208.5 Kips

Left side shear evaluation

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Up	60.4 Kips	89.50 Kips	69.05 Kips	76.9 Kips	63.7 Kips	1.66	2.15	1.93	2.33
Down	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right side shear evaluation

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Up	0.0 Kips	15.79 Kips	12.18 Kips	14.0 Kips	11.6 Kips	13.20	17.12	14.85	17.93
Down	-60.8 Kips	-97.57 Kips	-75.27 Kips	-84.2 Kips	-69.7 Kips	1.51	1.96	1.75	2.12

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U1

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Member	% Force*	Angle (horz.)	Vector Function	Unfactored Loading					
				Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
				Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
L0 - U1	-33%	63.4 degs	SIN	58.5 Kips	0.0 Kips	61.87	0.00	63.4 Kips	0.0 Kips
U1 - L1	-50%	21.0 degs	SIN	0.0 Kips	-3.3 Kips	0.00	-12.53	0.0 Kips	-13.8 Kips
U1 - L2	50%	23.3 degs	SIN	0.0 Kips	14.0 Kips	-4.99	17.31	-5.3 Kips	17.7 Kips
U1 - U2	0%	0.0 degs	COS	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips

*Enter negative or positive values to align resulting forces, so that positive values are up relative to vertical and negative values are down relative to vertical. % Force is the amount of force assumed to be applied to each gusset plate. For chord members, PB assumed that some force was transferred by the top splice plate. The percentage used matches what PB used in the 2012 rating.

PB Capacity : 323.6 Kips

Revised Capacity: 340.6 Kips

ad Dir. DL vs	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Match	86.5 Kips	116.64 Kips	89.98 Kips	98.8 Kips	81.8 Kips	2.18	2.82	2.57	3.11
Opposite	86.5 Kips	-8.73 Kips	-6.73 Kips	-7.8 Kips	-6.4 Kips	48.93	63.43	55.03	66.44

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.08	1.40	1.17	1.42

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

BAR7 used to determine live load effects, see output files in the Truss Rating Analysis section.

Methodology used is as follows: Reuse member capacities, Dead loads, and HL93 loading from the 2012 load rating. Revise the member capacities by adjusting the System factor and Condition based on the finding from HNTB's 2017's inspection. Note the gusset plate capacities used in the 2012 load rating were further reduced by 10% to account for the possibility of sudden failure without redundant elements.

The rating calculations are in accordance with AASHTO's MBE equation 6A.4.2.1-1. This is accomplished by first determining the current element capacity, then dead and live loads are factored. A rating factor is then calculated by subtracting the dead load from the capacity and dividing by the live load.

Capacity adjustment by use of system and condition factors. Calculate the capacity modification factor used in the 2012 load rating, calculate the capacity modification factor appropriate for the current load rating. Divide the new capacity factor by the 2012 factor and then multiply the 2012 capacities by this adjustment value to determine the revised capacities. Note the capacities are given per gusset plate and there are two plates per panel point. In the rating equation, the gusset plate capacity is multiplied by two to account for this as all loads are listed per member. The gusset plate shear capacities are not multiplied by two.

Condition & System Factors, Per AASHTO MBE 6A.4.2.3 & 6A.4.2.4

	System	Condition	Combined
PB	0.90	0.95	0.855
HNTB	0.90	1.00	0.9
	Adjustment Factor		1.05

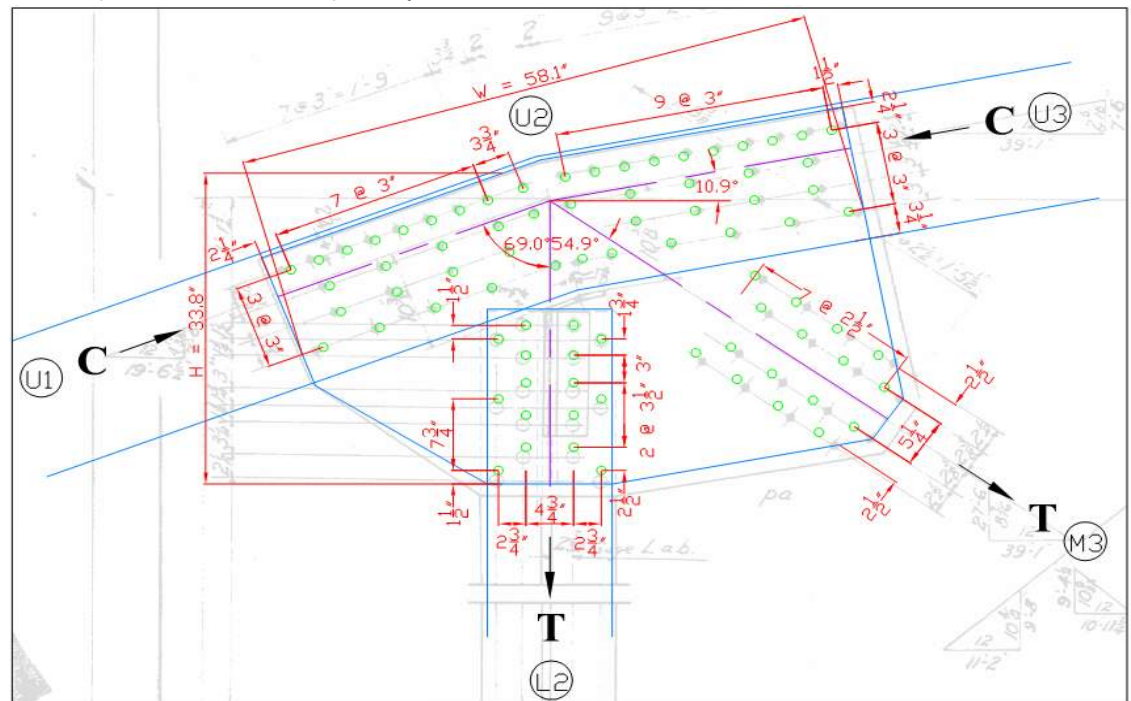
Load Factors, Per AASHTO MBE 6A.4.2.2 and Canadian Highway Bridge Design Code 14.3

Dc	1.25			
Live Load	Inventory	Operating	Legal	Dynamic
HL-93	1.75	1.35	---	1.33
State Legal	---	---	1.30	1.33
CL-625-ONT	1.63	1.35	---	1.25

Multiple Presence factors

Live Load	HL-93*	State Legal	CL-625-ONT
Factor	1.00	1.00	0.90

*Factor already included in HL-93 data from PB



For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading								
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle (vert)	Angle (Horz.)	Consider*
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.			
U2	U1 - U2	-195.9 Kips	0.0 Kips	-206.01 Kips	0.00 Kips	-214.2 Kips	0.0 Kips	69.0 degs	69.0 degs	Yes
	U2 - L2	-17.3 Kips	0.0 Kips	-45.83 Kips	57.76 Kips	-46.1 Kips	60.9 Kips	0.0 degs	0.0 degs	Yes
	M3 - U2	0.0 Kips	63.5 Kips	-47.51 Kips	99.51 Kips	-50.5 Kips	102.0 Kips	54.9 degs	54.9 degs	Yes
	U2 - U3	-239.0 Kips	0.0 Kips	-248.13 Kips	0.00 Kips	-258.4 Kips	0.0 Kips	10.9 degs	10.9 degs	Yes

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
U1 - U2		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
U2 - L2	148.1 Kips	155.9 Kips	0.0 Kips	101.08 Kips	77.98 Kips	89.3 Kips	74.0 Kips	3.08	3.99	3.49	4.21
M3 - U2	148.1 Kips	155.9 Kips	79.4 Kips	174.14 Kips	134.34 Kips	149.6 Kips	123.9 Kips	1.33	1.73	1.55	1.87
U2 - U3		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

		Capacities		Factored Loads					Rating Factors			
Member	% Force*	PB, 2012	Revised	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
					Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
U1 - U2	66%	-333.2 Kips	-350.7 Kips	-162.1 Kips	-238.66 Kips	-184.11 Kips	-208.0 Kips	-172.3 Kips	2.25	2.92	2.59	3.13
M3 - U2	100%	-63.5 Kips	-66.8 Kips	0.0 Kips	-83.14 Kips	-64.14 Kips	-74.1 Kips	-61.4 Kips	1.60	2.08	1.80	2.17
U2 - U3	66%	-379.4 Kips	-399.4 Kips	-197.2 Kips	-286.59 Kips	-221.08 Kips	-250.2 Kips	-207.2 Kips	2.09	2.72	2.40	2.90

*Enter percentage of force that gusset plate takes from member.

Note: Member M3-U2 had no capacity value from PB 2012 rating, LL compression forces compared to DL tension load.

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Vertical Shear Evaluation

			Vector Function	Unfactored Loading						Shear side
				Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT		
Member	% Force*	Angle (vert)		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.	
U1 - U2	-33%	69.0 degs	COS	23.3 Kips	0.0 Kips	24.47	0.00	25.4 Kips	0.0 Kips	Left
U2 - L2	0%	0.0 degs	COS	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips	NA
M3 - U2	-50%	54.9 degs	COS	0.0 Kips	-18.3 Kips	13.66	-28.61	14.5 Kips	-29.3 Kips	Right
U2 - U3	33%	10.9 degs	SIN	-15.0 Kips	0.0 Kips	-15.53	0.00	-16.2 Kips	0.0 Kips	Right

*Enter negative or positive values to align resulting forces, so that positive values are up relative to vertical and negative values are down relative to vertical. % Force is the amount of force assumed to be applied to each gusset plate. For chord members, PB assumed that some force was transferred by the top splice plate. The percentage used matches what PB used in the 2012 rating.

PB Capacity: 220.9 Kips

Revised Capacity: 232.5 Kips

Left side shear evaluation

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Up	29.1 Kips	42.83 Kips	33.04 Kips	37.3 Kips	30.9 Kips	4.75	6.16	5.45	6.58
Down	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right side shear evaluation

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Up	0.0 Kips	23.90 Kips	18.44 Kips	21.3 Kips	17.6 Kips	9.73	12.61	10.92	13.18
Down	-41.5 Kips	-77.24 Kips	-59.59 Kips	-66.7 Kips	-55.3 Kips	2.47	3.21	2.86	3.46

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U2

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Member	% Force*	Angle (horz.)	Vector Function	Unfactored Loading					
				Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
				Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
U1 - U2	0%	69.0 degs	SIN	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips
U2 - L2	0%	0.0 degs	SIN	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips
M3 - U2	50%	54.9 degs	SIN	0.0 Kips	26.0 Kips	-19.44	40.71	-20.7 Kips	41.7 Kips
U2 - U3	0%	10.9 degs	COS	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips

*Enter negative or positive values to align resulting forces, so that positive values are up relative to vertical and negative values are down relative to vertical. % Force is the amount of force assumed to be applied to each gusset plate. For chord members, PB assumed that some force was transferred by the top splice plate. The percentage used matches what PB used in the 2012 rating.

PB Capacity : 379.8 Kips

Revised Capacity: 399.8 Kips

ad Dir. DL vs	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Match	32.5 Kips	71.24 Kips	54.95 Kips	61.2 Kips	50.7 Kips	5.16	6.68	6.00	7.25
Opposite	32.5 Kips	-34.01 Kips	-26.24 Kips	-30.3 Kips	-25.1 Kips	12.71	16.47	14.26	17.22

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.33	1.73	1.55	1.87

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

		Unfactored Loading								
Panel Point	Member	Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT**		Angle (vert)	Angle (Horz.)	Consider*
		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.			
U4	U3 - U4	-239.0 Kips	0.0 Kips	-248.13 Kips	0.00 Kips	-258.4 Kips	0.0 Kips	79.1 degs	79.1 degs	Yes
	U4 - L4	0.0 Kips	10.9 Kips	-37.72 Kips	72.65 Kips	-40.0 Kips	81.1 Kips	0.0 degs	0.0 degs	Yes
	M5 - U4	0.0 Kips	41.0 Kips	-57.09 Kips	100.44 Kips	-63.5 Kips	108.5 Kips	48.2 degs	48.2 degs	Yes
	U4 - U5	-265.3 Kips	0.0 Kips	-273.78 Kips	0.00 Kips	-282.2 Kips	0.0 Kips	90.0 degs	90.0 degs	Yes

*Members are not considered applicable if the member is continuous thru the gusset plate.

** CL-625-ONT includes dynamic loading (IM) where applicable. This was applied when determining if truck controlled over lane.

Members in Tension Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

			Factored Loads					Rating Factors			
	Capacities		Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
Member	PB, 2012	Revised		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
U3 - U4		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00
U4 - L4	148.1 Kips	155.9 Kips	13.6 Kips	127.14 Kips	98.08 Kips	119.0 Kips	98.6 Kips	2.34	3.04	2.50	3.02
M5 - U4	129.6 Kips	136.4 Kips	51.3 Kips	175.77 Kips	135.59 Kips	159.2 Kips	131.8 Kips	1.26	1.63	1.39	1.68
U4 - U5		0.0 Kips	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

Members in Compression Evaluation

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

		Capacities		Factored Loads					Rating Factors			
Member	% Force*			Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.		
		U3 - U4	66%		PB, 2012	Revised	-197.2 Kips	-286.59 Kips	-221.08 Kips	-250.2 Kips	-207.2 Kips	2.98
U4 - U5	66%	-499.7 Kips	-526.0 Kips	-218.9 Kips	-316.22 Kips	-243.94 Kips	-273.2 Kips	-226.3 Kips	2.75	3.57	3.19	3.85

*Enter percentage of force that gusset plate takes from member.

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Vertical Shear Evaluation

			Vector Function	Unfactored Loading						Shear side
				Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT		
Member	% Force*	Angle (vert)		Comp.	Tens.	Comp.	Tens.	Comp.	Tens.	
U3 - U4	-33%	79.1 degs	COS	15.0 Kips	0.0 Kips	15.54	0.00	16.2 Kips	0.0 Kips	Left
U4 - L4	0%	0.0 degs	COS	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips	NA
M5 - U4	-50%	48.2 degs	COS	0.0 Kips	-13.7 Kips	19.03	-33.47	21.2 Kips	-36.2 Kips	Right
U4 - U5	33%	90.0 degs	COS	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips	Right

*Enter negative or positive values to align resulting forces, so that positive values are up relative to vertical and negative values are down relative to vertical. % Force is the amount of force assumed to be applied to each gusset plate. For chord members, PB assumed that some force was transferred by the top splice plate. The percentage used matches what PB used in the 2012 rating.

PB Capacity: 205.2 Kips

Revised Capacity: 216.0 Kips

Left side shear evaluation

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Up	18.7 Kips	27.19 Kips	20.97 Kips	23.7 Kips	19.7 Kips	7.26	9.41	8.31	10.04
Down	0.0 Kips	0.00 Kips	0.00 Kips	0.0 Kips	0.0 Kips	999.00	999.00	999.00	999.00

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Right side shear evaluation

Condition	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Up	0.0 Kips	33.30 Kips	25.69 Kips	31.0 Kips	25.7 Kips	6.49	8.41	6.96	8.40
Down	-17.1 Kips	-58.58 Kips	-45.19 Kips	-53.0 Kips	-43.9 Kips	3.40	4.40	3.75	4.53

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

For	Madawaska International Crossing	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	JMA	Backchecked by	SMZ
Date	10/5/17	Date	10/7/17	Date	10/8/17



Gusset Plate being Evaluated is Panel Point U4

Calculation of Gusset Plate rating factors for the HL93 and Canadian CL-625-ONT. Note, base member capacities and dead loads taken from 2012 PB load rating. Ratings calculated in accordance with AASHTO Manual for Bridge Evaluation.

Gusset Gross Horizontal Shear Evaluation

Per the AASHTO MBE conservatively ignore concurrent member forces, and use the maximum horizontal force on the gusset plate induced by the members. Determine the worst load case then use the forces from that load case to determine the rating factor for the gusset plate.

Member	% Force*	Angle (horz.)	Vector Function	Unfactored Loading					
				Dead Load (Dc)		LL (HL-93 + IM)		CL-625-ONT	
				Comp.	Tens.	Comp.	Tens.	Comp.	Tens.
U3 - U4	0%	79.1 degs	SIN	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips
U4 - L4	0%	0.0 degs	SIN	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips
M5 - U4	50%	48.2 degs	SIN	0.0 Kips	15.3 Kips	-21.28	37.45	-23.7 Kips	40.5 Kips
U4 - U5	0%	90.0 degs	SIN	0.0 Kips	0.0 Kips	0.00	0.00	0.0 Kips	0.0 Kips

*Enter negative or positive values to align resulting forces, so that positive values are up relative to vertical and negative values are down relative to vertical. % Force is the amount of force assumed to be applied to each gusset plate. For chord members, PB assumed that some force was transferred by the top splice plate. The percentage used matches what PB used in the 2012 rating.

PB Capacity : 384.4 Kips

Revised Capacity: 404.6 Kips

Load Dir. DL vs. LL	Factored Loads					Rating Factors			
	Dc	HL-93+IM		CL-625-ONT		HL-93		CL-625-ONT	
		Inv.	Oper.	Inv.	Oper.	Inv.	Oper.	Inv.	Oper.
Match	19.1 Kips	65.53 Kips	50.55 Kips	59.3 Kips	49.1 Kips	5.88	7.63	6.50	7.84
Opposite	19.1 Kips	-37.25 Kips	-28.73 Kips	-34.7 Kips	-28.8 Kips	11.38	14.75	12.20	14.73

$$RF = \frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL - IM)} \quad 6A.4.2.1-1$$

Controlling Rating Factors

Controlling Rating Factors			
HL-93		CL-625-ONT	
Inv.	Oper.	Inv.	Oper.
1.26	1.63	1.39	1.68

FLOORBEAM LOAD RATING ANALYSIS

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 1 of __

Project: Madawaska Bridge Rating	Job No: 63738	Design Criteria Document: 1
Client: MaineDOT	Discipline: Structures	Calculation No: 1

Name or Description of Calculation: Madawaska Bridge Rating – Floorbeam Ratings				
Calc. Rev. No.	Originator	Checker	Senior Technical Reviewer (if required)	Confirmation Required (Y/N)
1	Shane M. Zeller	Eric M. Gogola		

Calculation Objective:
Determine load rating for the floorbeams of Madawaska Bridge.

Calculation Methodology/List of Assumptions:

Section Losses:
Section losses were taken from the 2017 inspection report sketches. Two (2) severe section loss cross sections and one (1) moderate section loss cross section were analyzed. The moment ratings considered the section loss to be at midspan, while the shear ratings considered the section loss to be located at stringer 2 (4'-3" from the end of floorbeam). Ratings at maximum shear points (floorbeam ends) were calculated based on full sections because no deteriorations at these locations were noted in the 2017 inspection

Member Capacities:
Moment and Shear capacities were calculated per AASHTO LRFD 6.10.8 and 6.10.9, respectively. A capacity was calculated for each section loss cross section that was analyzed.

Average flange and web thicknesses were used for capacity calculations. The average thicknesses were calculated by dividing the remaining area by the average flange width or known web depth. Floorbeam cover plate dimensions were measured during the 2017 inspection. The top flange cover plate is 5.25" wide x 0.75" thick. The bottom flange cover plate is 8" wide x 0.5" thick. These dimensions were slightly different than the values assumed in the 2012 load rating.

IES ShapeBuilder was used to determine the section modulus of each section loss cross section. The base floorbeam shape (rolled shape - I24x79.9) was input into ShapeBuilder as a plate girder to simplify the inputting of section loss to the member. The moment capacities in the rating breakdown were calculated by multiplying the section moduli and the nominal flexure resistance from the capacity calculations.

Dead Loads:
Dead loads were taken from the 2012 load rating performed by PB. The dead load shear force located at stringer 2 was found by multiplying the distance ratio from the second stringer to the end of the floorbeam (12'-0" – 4'-3" / 12'-0" ~ 65%) and the dead load shear value at the end of floorbeam.

Live Loads:
The stringers were rated for the following vehicles:

- AASHTO HL-93
- CHBDC CL-625-ONT (Canadian Vehicle)
- MaineDOT Legal Load Configurations

The vehicles were input into a 2-span planar STAAD model to determine the maximum reaction at the middle support (floorbeam). The maximum reaction from the STAAD model for the lane load was multiplied

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 2 of __

by the number of lanes and distributed along the width of the lanes (assumed to be in the center of the bridge). The maximum reaction from the STAAD model for the axle loads was divided by 2 and used as a wheel load (point load). The shear and flexure forces were calculated in Excel using the distributed load for the lane load and the point loads for the truck wheels. The wheel loads were placed to represent two trucks placed symmetrically about the center of the bridge. The live loading schematic would be a uniform load for the lane load and four point loads representing the trucks.

Factors:

The system factor, condition factor, dead load factor, live load factors, dynamic load allowance factors, and multiple presence factors are in accordance with AASHTO and CHBDC.

References/Inputs:

AASHTO LRFD 2014 (2016 Interims)
AASHTO Manual for Bridge Evaluation (MBE) 2011 (2016 Interims)
Canadian Highway Bridge Design Code (CHBDC) S6-14
MaineDOT Load Rating Guide
STAAD
IES ShapeBuilder
Parsons Brinckerhoff (PB) 2012 Load Rating Report

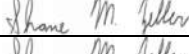
Attachments:

In-House Spreadsheet Calculations
STAAD Output
IES ShapeBuilder Output
Inspection Report Sketches

Conclusions:

See rating summary table.

The 2012 load rating performed by PB underestimated the live load effects of the trucks on the floorbeam. PB used a single point load to represent a truck on the floorbeam. HNTB used two point loads to represent the wheels of a truck on the floorbeam. The method used by PB resulted in an ultimate moment that was 10% smaller than that of HNTB. Due to this, the updated ratings for the floorbeams are significantly worse.

Document Check:	Name	Signature	Date
Originator:	Shane M. Zeller		10/02/2017
Checker:	James Anderson		10/09/2017
BackChecker:	Shane M. Zeller		10/10/2017
Updater:	Shane M. Zeller		10/10/2017
Verifier:	James Anderson		10/11/2017

FLOORBEAM RATING SUMMARY

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17

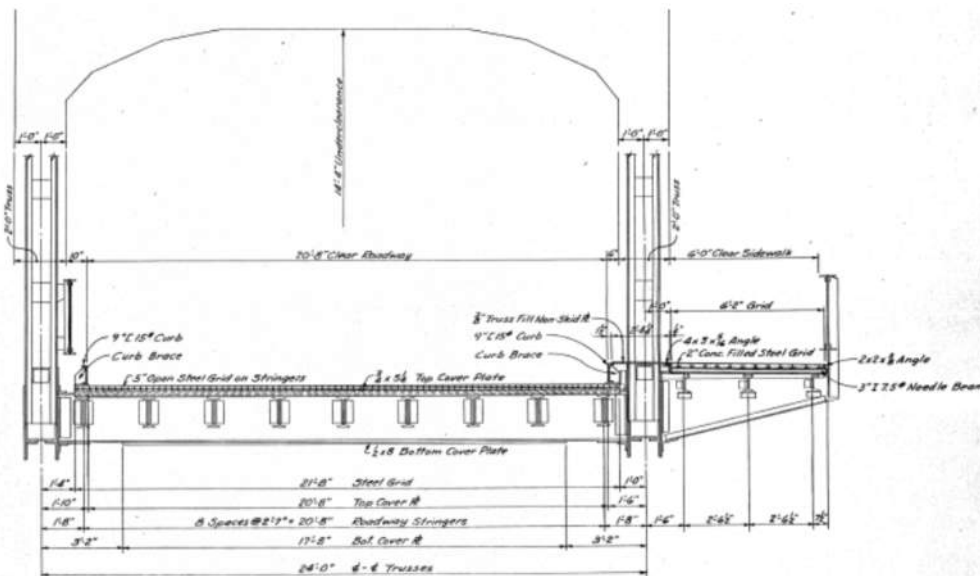


Floorbeam Controlling Load Ratings Summary

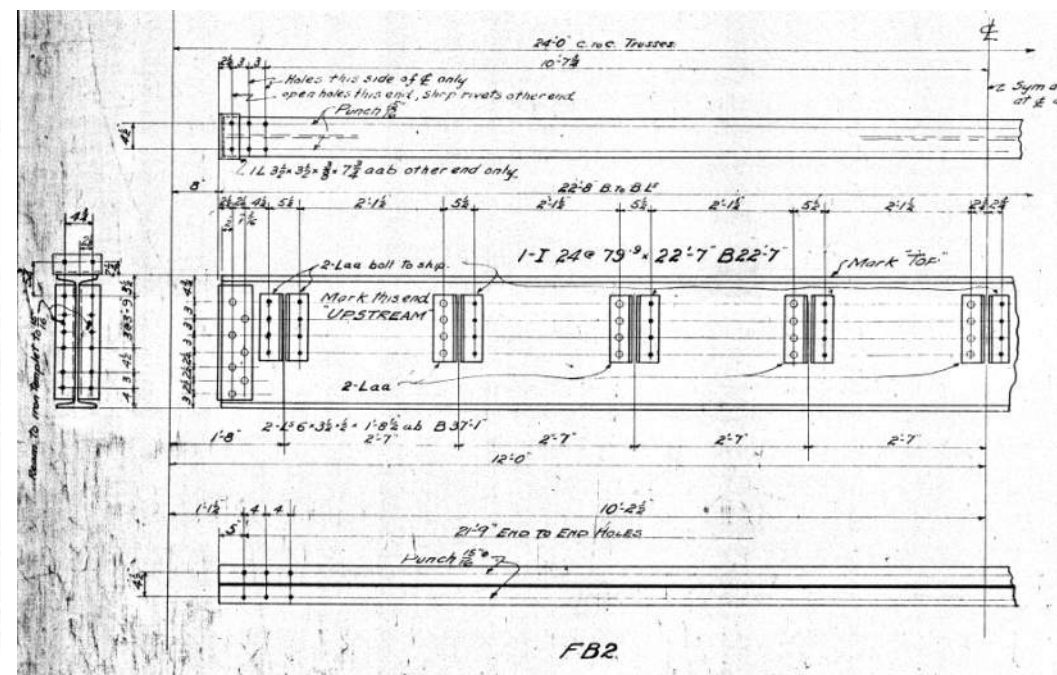
Vehicle	Rating Factors			
	Inventory		Operating	
	Shear	Moment	Shear	Moment
HL-93	0.82 V	0.38 M	1.07 V	0.50 M
CL-625-ONT	0.90 V	0.43 M	1.08 V	0.52 M

Vehicle	Rating Factors	
	Legal	
	Shear	Moment
MaineDOT Legal 1	1.34 V	0.65 M
MaineDOT Legal 2	1.14 V	0.55 M
MaineDOT Legal 3	1.19 V	0.58 M
MaineDOT Legal 4	1.24 V	0.60 M
MaineDOT Legal 5	1.28 V	0.62 M
MaineDOT Legal 6	0.98 V	0.47 M
MaineDOT Legal 7	1.21 V	0.59 M
MaineDOT Legal 8	1.90 V	0.92 M

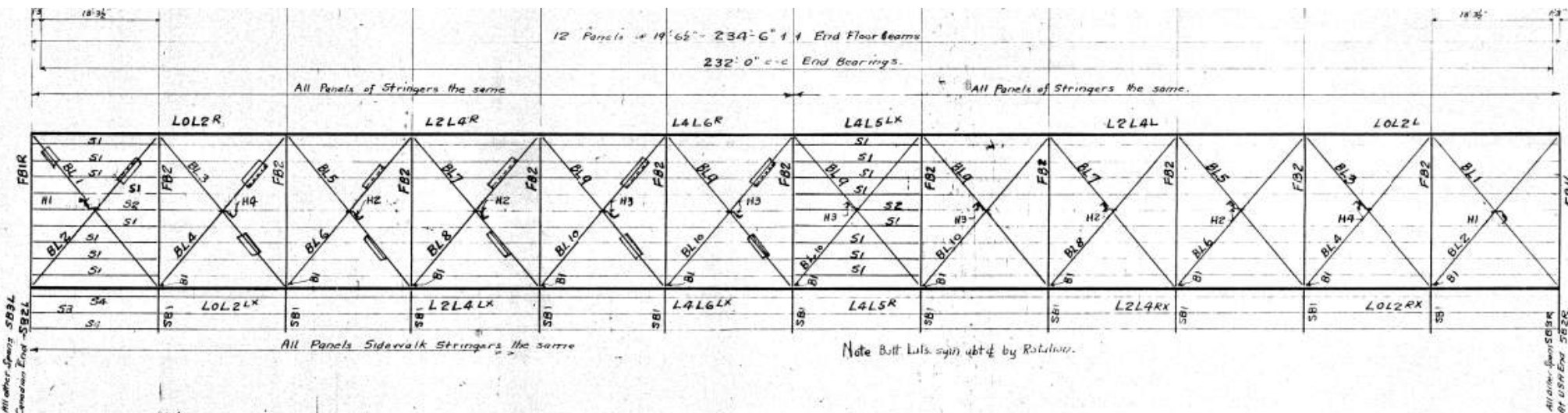
INPUT INFORMATION (FROM 2012 PB LOAD RATING)



TYPICAL TRUSS SECTION



FLOORBEAM ELEVATION



FRAMING PLAN

Page 5 of

Made by B. HOLSAPPLE

Date 3/14/2012

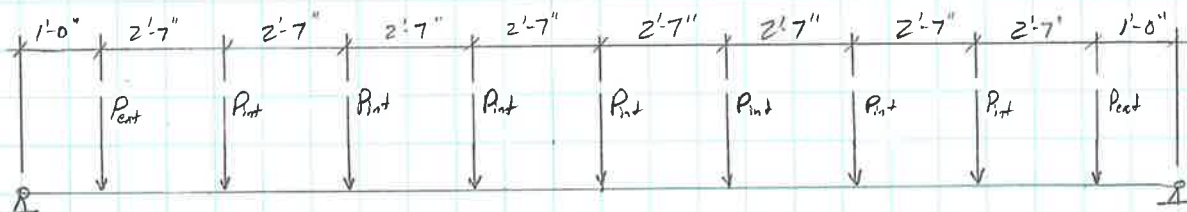
Checked by RLN

Date 4/12

Subject MAINE NORTH TRUSSES - 2399 MADAWASKA
FLOOR BEAM RATINGS

DEAD LOADS APPLIED TO FLOOR BEAMS

(INTERIOR FB CONTROLS - INT. + EXT. ARE SAME SECTION) (24x79.9)



$$P_{ext} = (19.54 \text{ ft}) \left[0.043 \frac{\text{k}}{\text{ft}} + 0.032 \frac{\text{k}}{\text{ft}} + 0.040 \frac{\text{k}}{\text{ft}} \right] = 2.247^{\text{k}}$$

$$P_{int} = (19.54 \text{ ft}) \left[0.043 \frac{\text{k}}{\text{ft}} + 0.047 \frac{\text{k}}{\text{ft}} \right] = 1.759^{\text{k}}$$

$$\text{WEIGHT OF FB} = 0.080 \text{ k/ft}$$

$$\text{MAX DC SHEAR} = \left[2(2.247) + 7(1.759) + 24(0.080) \right] \frac{1}{2} = \boxed{9.36^{\text{k}}}$$

$$\begin{aligned} \text{MAX DC MOMENT} = & (11.33 \text{ ft})(9.36^{\text{k}}) - (10.33 \text{ ft})(2.247^{\text{k}}) - (7.75 \text{ ft})(1.759^{\text{k}}) - (5.17 \text{ ft})(1.759^{\text{k}}) \\ & - (2.58 \text{ ft})(1.759^{\text{k}}) - (5.67 \text{ ft})(0.08 \text{ k/ft})(11.33 \text{ ft}) = \boxed{50.43 \text{ k-ft}} \end{aligned}$$

(NO WEARING SURFACE $\therefore$ NO DW LOAD)

FLOORBEAM LIVE LOADS

For	Madawaska truss load rating (floorbeams)	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/9/17	Date	10/10/17	Date	10/10/17



Live Load Calculations

Assume a distributed load for the lane load and point loads for truck wheels.

Span length (L):	24.00 ft	point of interest from left support, Dist. (X):	12.00 ft
Begin of lanes from left support:	2.00 ft	No. of lanes:	2
Wheel gage:	6.00 ft	Lane width:	10.00 ft
Lane-1 left wheel from left end:	4.00 ft	Wheel passing:	4.00 ft
Lane-1 right wheel from left end:	10.00 ft	Lane-2 left wheel from left end:	14.00 ft
S2 from left end:	4.25 ft	Lane-2 right wheel from left end:	20.00 ft

Moment equations follow AISC Table 3-23 Figure 4 (Lane) & Figure 8 (Wheels)

Loads	Vehicle :	HL-93	Legal-1	Legal-2	Legal-3	Legal-4
	Lane reaction at floorbeam:	12.51 k/ft				
	Uniform lane load (w):	1.25 k/ft	0.00 k/ft	0.00 k/ft	0.00 k/ft	0.00 k/ft
	Truck reaction at floorbeam:	44.88 k/ft	43.15 k/ft	50.69 k/ft	48.53 k/ft	46.62 k/ft
	Truck Wheel loads (P):	22.44 kips	21.58 kips	25.35 kips	24.27 kips	23.31 kips
Lane Loading	left support to load, Dist. (a):	2.00 ft	2.00 ft	2.00 ft	2.00 ft	2.00 ft
	load width, Dist. (b):	20.00 ft	20.00 ft	20.00 ft	20.00 ft	20.00 ft
	load to right support, Dist. (c):	2.00 ft	2.00 ft	2.00 ft	2.00 ft	2.00 ft
	Left support reaction, R1:	12.51 kips	0.00 kips	0.00 kips	0.00 kips	0.00 kips
	Right support reaction, R2:	12.51 kips	0.00 kips	0.00 kips	0.00 kips	0.00 kips
	Calculate moment @ X	Case-1 $x < a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-2 $a < X < (a+b)$	87.57 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-3 $X > (a+b)$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
Wheel-1	Lane Mx :		87.57 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
	left support to load, Dist. (a):	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft
	right support to load, Dist. (b):	20.00 ft	20.00 ft	20.00 ft	20.00 ft	20.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-2 $X > a$	44.88 kip-ft	43.15 kip-ft	50.69 kip-ft	48.53 kip-ft
Wheel-2	Wheel-1 Mx :		44.88 kip-ft	43.15 kip-ft	50.69 kip-ft	48.53 kip-ft
	left support to load, Dist. (a):	10.00 ft	10.00 ft	10.00 ft	10.00 ft	10.00 ft
	right support to load, Dist. (b):	14.00 ft	14.00 ft	14.00 ft	14.00 ft	14.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-2 $X > a$	112.20 kip-ft	107.88 kip-ft	126.73 kip-ft	121.33 kip-ft
Wheel-3	Wheel-2 Mx :		112.20 kip-ft	107.88 kip-ft	126.73 kip-ft	121.33 kip-ft
	left support to load, Dist. (a):	14.00 ft	14.00 ft	14.00 ft	14.00 ft	14.00 ft
	right support to load, Dist. (b):	10.00 ft	10.00 ft	10.00 ft	10.00 ft	10.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	112.20 kip-ft	107.88 kip-ft	126.73 kip-ft	121.33 kip-ft
		Case-2 $X > a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
Wheel-4	Wheel-3 Mx :		112.20 kip-ft	107.88 kip-ft	126.73 kip-ft	121.33 kip-ft
	left support to load, Dist. (a):	20.00 ft	20.00 ft	20.00 ft	20.00 ft	20.00 ft
	right support to load, Dist. (b):	4.00 ft	4.00 ft	4.00 ft	4.00 ft	4.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	44.88 kip-ft	43.15 kip-ft	50.69 kip-ft	48.53 kip-ft
		Case-2 $X > a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
	Wheel-4 Mx :		44.88 kip-ft	43.15 kip-ft	50.69 kip-ft	48.53 kip-ft
	Lane dynamic load factor:	1.00	1.00	1.00	1.00	1.00
	Truck dynamic load factor:	1.33	1.33	1.33	1.33	1.33
	Total LL+IM, Mx :	505.40 kip-ft	401.73 kip-ft	471.92 kip-ft	451.81 kip-ft	434.03 kip-ft
	Total LL+IM, Vy @ Stringer 2 :	69.39 kip	57.39 kip	67.42 kip	64.54 kip	62.00 kip
	Total LL+IM, Vy @ CL Truss :	72.20 kip	57.39 kip	67.42 kip	64.54 kip	62.00 kip

For	Madawaska truss load rating (floorbeams)	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/9/17	Date	10/10/17	Date	10/10/17



Live Load Calculations

Assume a distributed load for the lane load and point loads for truck wheels.

Span length (L):	24.00 ft	point of interest from left support, Dist. (X):	12.00 ft
Begin of lanes from left support:	2.00 ft	No. of lanes:	2
Wheel gage:	6.00 ft	Lane width:	10.00 ft
Lane-1 left wheel from left end:	4.00 ft	Wheel passing:	4.00 ft
Lane-1 right wheel from left end:	10.00 ft	Lane-2 left wheel from left end:	14.00 ft
S2 from left end:	4.25 ft	Lane-2 right wheel from left end:	20.00 ft

Moment equations follow AISC Table 3-23 Figure 4 (Lane) & Figure 8 (Wheels)

Loads	Vehicle :		Legal-5	Legal-6	Legal-7	Legal-8
	Lane reaction at floorbeam:					
	Uniform lane load (w):		0.00 k/ft	0.00 k/ft	0.00 k/ft	0.00 k/ft
	Truck reaction at floorbeam:		45.33 k/ft	59.19 k/ft	47.81 k/ft	30.57 k/ft
	Truck Wheel loads (P):		22.67 kips	29.60 kips	23.91 kips	15.29 kips
Lane Loading	left support to load, Dist. (a):		2.00 ft	2.00 ft	2.00 ft	2.00 ft
	load width, Dist. (b):		20.00 ft	20.00 ft	20.00 ft	20.00 ft
	load to right support, Dist. (c):		2.00 ft	2.00 ft	2.00 ft	2.00 ft
	Left support reaction, R1:		0.00 kips	0.00 kips	0.00 kips	0.00 kips
	Right support reaction, R2;		0.00 kips	0.00 kips	0.00 kips	0.00 kips
	Calculate moment @ X	Case-1 $x < a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-2 $a < X < (a+b)$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-3 $X > (a+b)$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
<u>Lane M_x :</u>		0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	
Wheel-1	left support to load, Dist. (a):		4.00 ft	4.00 ft	4.00 ft	4.00 ft
	right support to load, Dist. (b):		20.00 ft	20.00 ft	20.00 ft	20.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-2 $X > a$	45.33 kip-ft	59.19 kip-ft	47.81 kip-ft	30.57 kip-ft
	<u>Wheel-1 M_x :</u>		45.33 kip-ft	59.19 kip-ft	47.81 kip-ft	30.57 kip-ft
Wheel-2	left support to load, Dist. (a):		10.00 ft	10.00 ft	10.00 ft	10.00 ft
	right support to load, Dist. (b):		14.00 ft	14.00 ft	14.00 ft	14.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
		Case-2 $X > a$	113.33 kip-ft	147.98 kip-ft	119.53 kip-ft	76.43 kip-ft
	<u>Wheel-2 M_x :</u>		113.33 kip-ft	147.98 kip-ft	119.53 kip-ft	76.43 kip-ft
Wheel-3	left support to load, Dist. (a):		14.00 ft	14.00 ft	14.00 ft	14.00 ft
	right support to load, Dist. (b):		10.00 ft	10.00 ft	10.00 ft	10.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	113.33 kip-ft	147.98 kip-ft	119.53 kip-ft	76.43 kip-ft
		Case-2 $X > a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
	<u>Wheel-3 M_x :</u>		113.33 kip-ft	147.98 kip-ft	119.53 kip-ft	76.43 kip-ft
Wheel-4	left support to load, Dist. (a):		20.00 ft	20.00 ft	20.00 ft	20.00 ft
	right support to load, Dist. (b):		4.00 ft	4.00 ft	4.00 ft	4.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	45.33 kip-ft	59.19 kip-ft	47.81 kip-ft	30.57 kip-ft
		Case-2 $X > a$	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft	0.00 kip-ft
	<u>Wheel-4 M_x :</u>		45.33 kip-ft	59.19 kip-ft	47.81 kip-ft	30.57 kip-ft
	Lane dynamic load factor:		1.00	1.00	1.00	1.00
	Truck dynamic load factor:		1.33	1.33	1.33	1.33
	Total LL+IM, M_x :		422.02 kip-ft	551.06 kip-ft	445.11 kip-ft	284.61 kip-ft
Total LL+IM, V_y @ Stringer 2 :		60.29 kip	78.72 kip	63.59 kip	40.66 kip	
Total LL+IM, V_y @ CL Truss :		60.29 kip	78.72 kip	63.59 kip	40.66 kip	

For	Madawaska truss load rating (floorbeams)	Job No.	63738	Sheet No.	
Made by	JMA	Checked by	SMZ	Backchecked by	JMA
Date	10/9/17	Date	10/10/17	Date	10/10/17



Live Load Calculations

Assume a distributed load for the lane load and point loads for truck wheels.

Span length (L):	24.00 ft	point of interest from left support, Dist. (X):	12.00 ft
Begin of lanes from left support:	2.00 ft	No. of lanes:	2
Wheel gage:	6.00 ft	Lane width:	10.00 ft
Lane-1 left wheel from left end:	4.00 ft	Wheel passing:	4.00 ft
Lane-1 right wheel from left end:	10.00 ft	Lane-2 left wheel from left end:	14.00 ft
S2 from left end:	4.25 ft	Lane-2 right wheel from left end:	20.00 ft

Moment equations follow AISC Table 3-23 Figure 4 (Lane) & Figure 8 (Wheels)

Loads	Vehicle :		CL-625 Truck	CL-625 Lane
	Lane reaction at floorbeam:			12.06 k/ft
	Uniform lane load (w):		0.00 k/ft	1.21 k/ft
	Truck reaction at floorbeam:		60.89 k/ft	48.71 k/ft
	Truck Wheel loads (P):		30.45 kips	24.36 kips
Lane Loading	left support to load, Dist. (a):		2.00 ft	2.00 ft
	load width, Dist. (b):		20.00 ft	20.00 ft
	load to right support, Dist. (c):		2.00 ft	2.00 ft
	Left support reaction, R1:		0.00 kips	12.06 kips
	Right support reaction, R2;		0.00 kips	12.06 kips
	Calculate moment @ X	Case-1 $x < a$	0.00 kip-ft	0.00 kip-ft
		Case-2 $a < X < (a+b)$	0.00 kip-ft	84.42 kip-ft
		Case-3 $X > (a+b)$	0.00 kip-ft	0.00 kip-ft
<u>Lane M_x :</u>		0.00 kip-ft	84.42 kip-ft	
Wheel-1	left support to load, Dist. (a):		4.00 ft	4.00 ft
	right support to load, Dist. (b):		20.00 ft	20.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	0.00 kip-ft	0.00 kip-ft
		Case-2 $X > a$	60.89 kip-ft	48.71 kip-ft
	<u>Wheel-1 M_x :</u>		60.89 kip-ft	48.71 kip-ft
Wheel-2	left support to load, Dist. (a):		10.00 ft	10.00 ft
	right support to load, Dist. (b):		14.00 ft	14.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	0.00 kip-ft	0.00 kip-ft
		Case-2 $X > a$	152.23 kip-ft	121.78 kip-ft
	<u>Wheel-2 M_x :</u>		152.23 kip-ft	121.78 kip-ft
Wheel-3	left support to load, Dist. (a):		14.00 ft	14.00 ft
	right support to load, Dist. (b):		10.00 ft	10.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	152.23 kip-ft	121.78 kip-ft
		Case-2 $X > a$	0.00 kip-ft	0.00 kip-ft
	<u>Wheel-3 M_x :</u>		152.23 kip-ft	121.78 kip-ft
Wheel-4	left support to load, Dist. (a):		20.00 ft	20.00 ft
	right support to load, Dist. (b):		4.00 ft	4.00 ft
	Calculate moment @ X	Case-1 $X \leq a$	60.89 kip-ft	48.71 kip-ft
		Case-2 $X > a$	0.00 kip-ft	0.00 kip-ft
	<u>Wheel-4 M_x :</u>		60.89 kip-ft	48.71 kip-ft
	Lane dynamic load factor:		1.00	1.00
	Truck dynamic load factor:		1.25	1.00
	Total LL+IM, M_x :		532.79 kip-ft	425.39 kip-ft
	Total LL+IM, V_y @ Stringer 2 :		76.11 kip	58.06 kip
	Total LL+IM, V_y @ CL Truss :		76.11 kip	60.77 kip

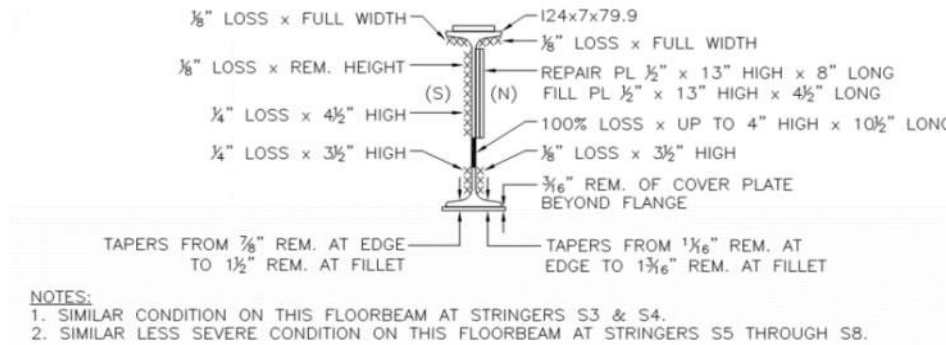
FLOORBEAM SECTION PROPERTIES & LOSSES

For Madawaska Bridge Load Rating	Job No. 63738	Sheet No.
Made by SMZ	Checked by EMG	Backchecked by SMZ
Date 10/02/17	Date 10/08/17	Date 10/10/17

Floorbeam Average Section Properties

Analysis Section 1 (Span 4 Floorbeam FB2S at Stringer S2)

b_{fc} =	6.13 in	comp flange width (avg of top flange of rolled shape and top cover plate width)
t_{fc} =	1.51 in	initial area = $0.871" \times 7" + 0.75" \times 5.25" = 10.034 \text{ in}^2$, minus $0.125" \times 6.5" = 9.22 \text{ in}^2$
b_{ft} =	7.50 in	tens flange width (avg of bot flange of rolled shape and bot cover plate width)
t_{ft} =	1.04 in	area remaining $\sim 7.78 \text{ in}^2$
tw =	0.53 in	initial area = $22.258" \times 0.5" + 13" \times 0.5" = 17.629 \text{ in}^2$, minus $5.72 \text{ in}^2 = 11.9 \text{ in}^2$
D =	22.26 in	web depth

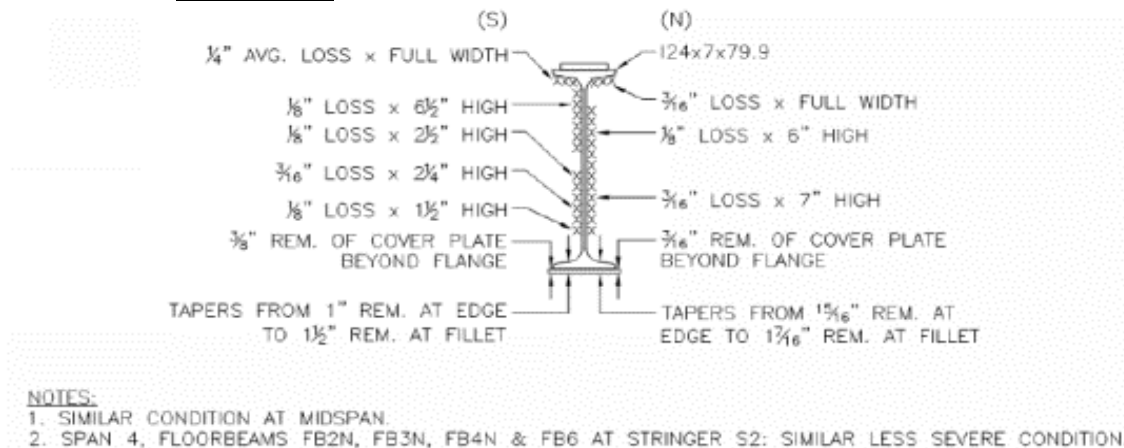


SPAN 4, FLOORBEAM FB2S AT STRINGER S2

(Severe condition for moment and shear)

Analysis Section 2 (Span 4 Floorbeam FB2S at Stringer S2)

b_{fc} =	6.13 in	comp flange width (avg of top flange of rolled shape and top cover plate width)
t_{fc} =	1.41 in	initial area = $0.871" \times 7" + 0.75" \times 5.25" = 10.034 \text{ in}^2$, minus $0.2188" \times 6.5" = 8.61 \text{ in}^2$
b_{ft} =	7.50 in	tens flange width (avg of bot flange of rolled shape and bot cover plate width)
t_{ft} =	1.17 in	area remaining $\sim 8.81 \text{ in}^2$
tw =	0.33 in	initial area = $22.258" \times 0.5" = 11.129 \text{ in}^2$, minus $3.80 \text{ in}^2 = 7.32 \text{ in}^2$
D =	22.26 in	web depth



SPAN 4, FLOORBEAM FB5S AT STRINGER S2

(Severe condition for moment and shear)

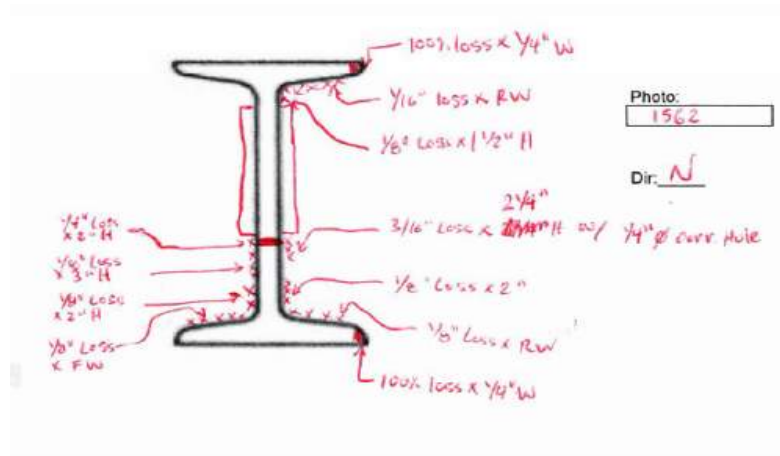
For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17



Floorbeam Average Section Properties

Analysis Section 3 (Span 4 Floorbeam FB2S at Stringer S2)

b_{fc} =	6.13 in	comp flange width (avg of top flange of rolled shape and top cover plate width)
t_{fc} =	1.57 in	initial area = $0.871" \times 7" + 0.75" \times 5.25" = 10.034 \text{ in}^2$, minus $0.41 \text{ in}^2 = 9.62 \text{ in}^2$
b_{ft} =	7.50 in	tens flange width (avg of bot flange of rolled shape and bot cover plate width)
t_{ft} =	1.25 in	initial area = $0.871" \times 7" + 0.50" \times 8" = 10.09 \text{ in}^2$, minus $0.125" \times 6" = 9.34 \text{ in}^2$
tw =	0.41 in	initial area = $22.258" \times 0.5" = 11.129 \text{ in}^2$, minus $2.07 \text{ in}^2 = 9.05 \text{ in}^2$
D =	22.26 in	web depth



SPAN 2, FLOORBEAM FB4N AT STRINGER S1

(Moderate condition for moment and shear)

IES SHAPEBUILDER OUTPUT

Shane Zeller

Analysis Section 1

Overall	
Depth	25.25 in
Width	8 in
Perimeter	72.33 in
Weight	99.11 lb/ft

Geometric	
Area	29.08 in ²
Ix	2758 in ⁴
Iy	62.1 in ⁴
Ixy	23.52 in ⁴
rx	9.738 in
ry	1.461 in
Sx+	255.3 in ³
Sx-	190.8 in ³
Sy+	15.42 in ³
Sy-	15.63 in ³
Xc	-0.0264 in
Yc	1.95 in

Principal	
I1	2758 in ⁴
I2	61.89 in ⁴
α	-0.4998 deg
r1	9.738 in
r2	1.459 in
S1+	254.8 in ³
S1-	190.4 in ³
S2+	14.91 in ³
S2-	16.07 in ³

Polar	
Ip	2820 in ⁴
rp	9.847 in

Rectangle 4!	
Qx	53.02 in ³
Qy	0.9941 in ³

Part 1!	
Qx	20.56 in ³
Qy	1.173 in ³

Plastic	
Zx	245.3 in ³
Zy	29.83 in ³
Xpna	0.0443 in
Ypna	4.622 in

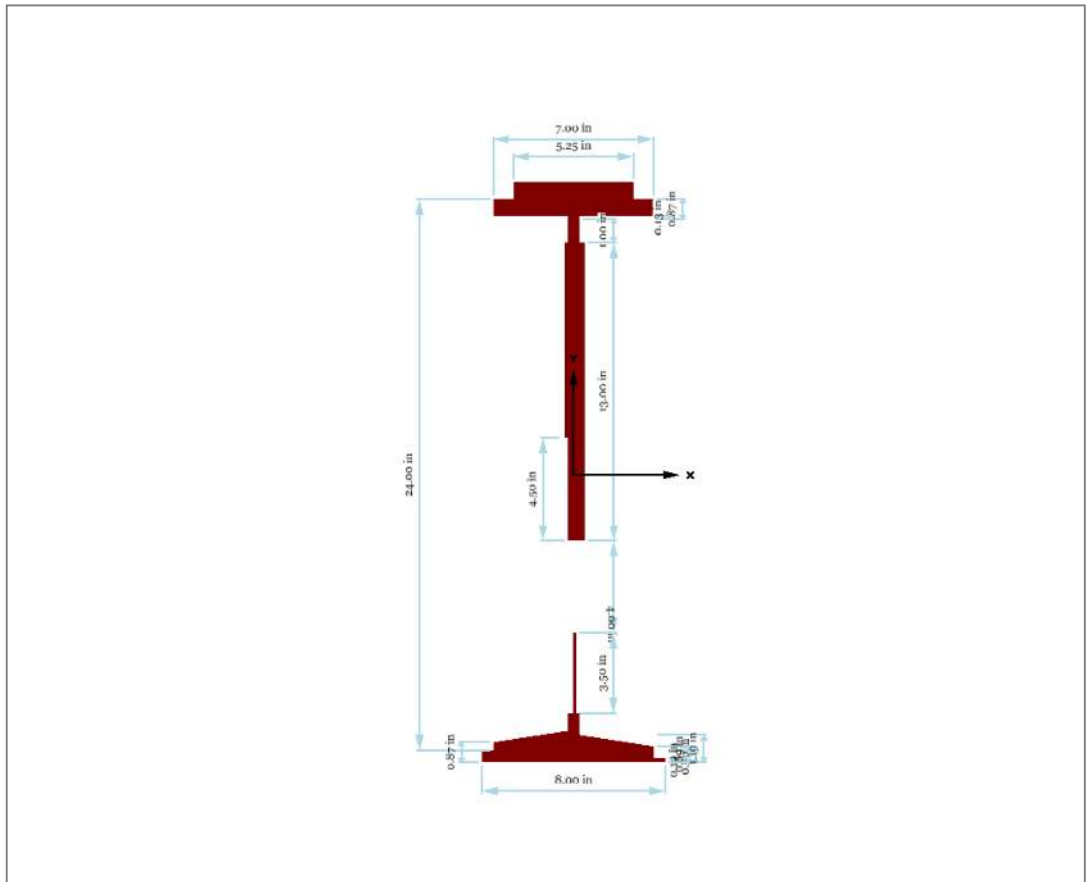
Part Materials	
All	ASTM A36

Rectangle 4	
Qx	51.11 in ³
Qy	0.1397 in ³

Part 2	
Qx	54.59 in ³
Qy	0.4843 in ³

Part 1	
Qx	5.815 in ³
Qy	0.234 in ³

Part 2!	
Qx	41.05 in ³
Qy	0.1041 in ³



Shane Zeller

Analysis Section 2

Overall	
Depth	25.25 in
Width	8 in
Perimeter	79.75 in
Weight	83.57 lb/ft

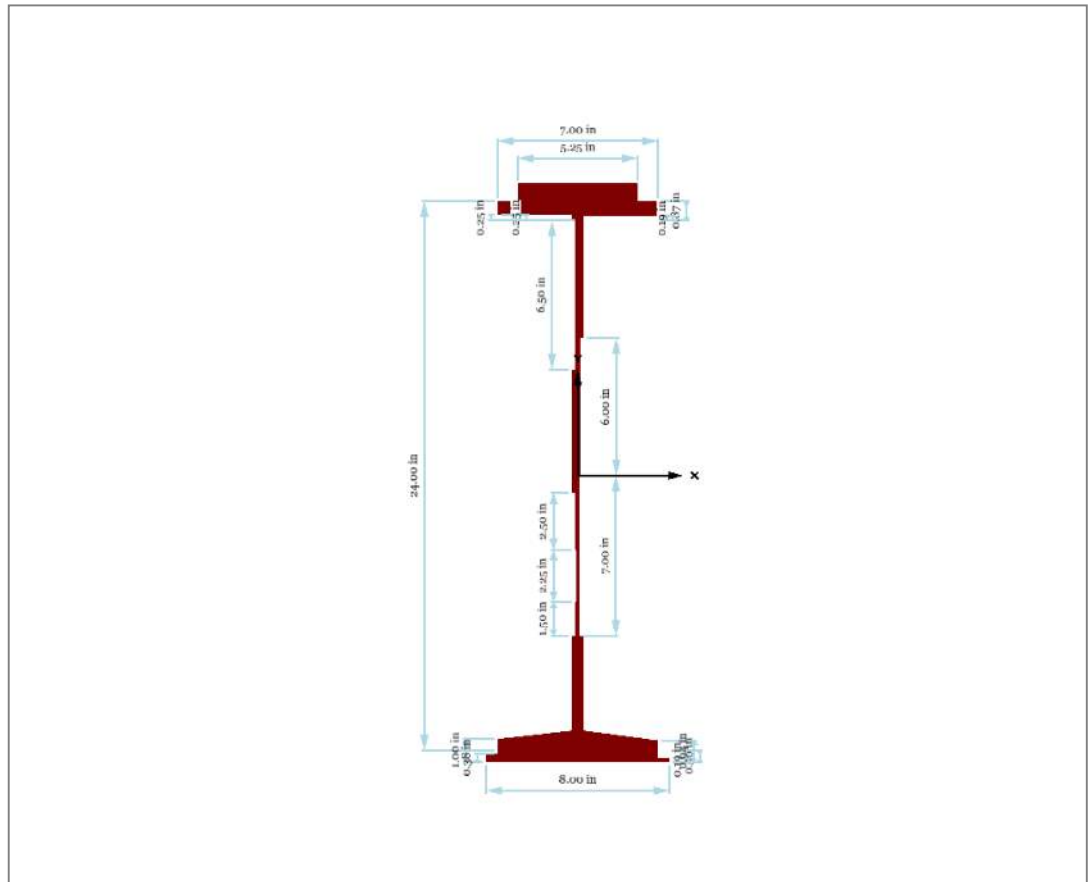
Geometric	
Area	24.52 in ²
Ix	2817 in ⁴
Iy	62.59 in ⁴
Ixy	12.19 in ⁴
rx	10.72 in
ry	1.598 in
Sx+	221.4 in ³
Sx-	224.9 in ³
Sy+	15.61 in ³
Sy-	15.69 in ³
Xc	-0.0098 in
Yc	0.0254 in

Principal	
I1	2817 in ⁴
I2	62.54 in ⁴
α	-0.2535 deg
r1	10.72 in
r2	1.597 in
S1+	221.2 in ³
S1-	224.6 in ³
S2+	15.38 in ³
S2-	15.89 in ³

Polar	
Ip	2880 in ⁴
rp	10.84 in

Rectangle 4!	
Qx	55.99 in ³
Qy	0.1887 in ³

Part Materials	
All	ASTM A36



Plastic	
Zx	250.2 in ³
Zy	28.61 in ³
Xpna	-0.0063 in
Ypna	0.9417 in

Rectangle 4	
Qx	54.41 in ³
Qy	0.4266 in ³

Part 2	
Qx	46.44 in ³
Qy	0.3146 in ³

Part 1	
Qx	0.6019 in ³
Qy	0.0381 in ³

Part 2!	
Qx	48.63 in ³
Qy	0.0385 in ³



Shane Zeller

Analysis Section 3

Overall

Depth	25.25 in
Width	8 in
Perimeter	87 in
Weight	92.4 lb/ft

Geometric

Area	27.11 in ²
Ix	2997 in ⁴
Iy	71.32 in ⁴
Ixy	-5.07 in ⁴
rx	10.51 in
ry	1.622 in
Sx+	244.5 in ³
Sx-	230.7 in ³
Sy+	17.54 in ³
Sy-	18.13 in ³
Xc	-0.0668 in
Yc	0.4933 in

Principal

I1	2997 in ⁴
I2	71.31 in ⁴
α	0.0993 deg
r1	10.51 in
r2	1.622 in
S1+	244.4 in ³
S1-	230.5 in ³
S2+	17.63 in ³
S2-	18.03 in ³

Polar

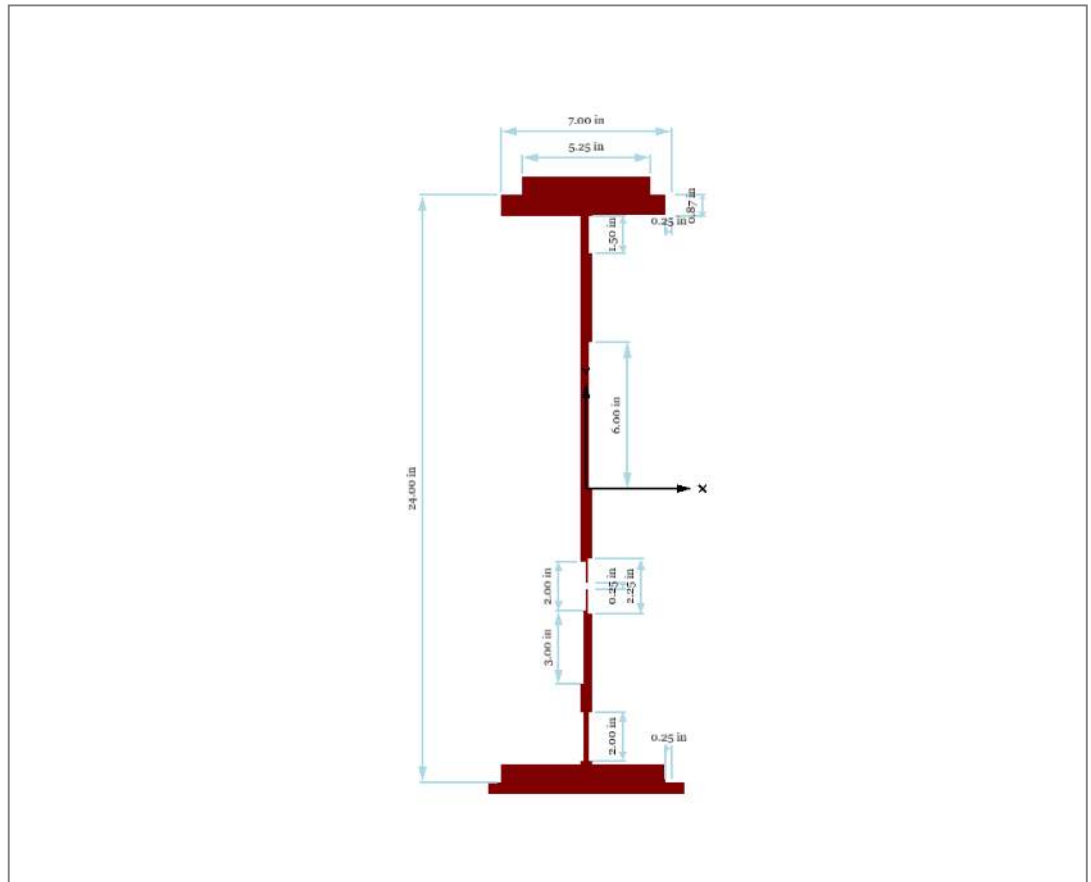
I _p	3068 in ⁴
r _p	10.64 in

Rectangle 4!

Q _x	61.82 in ³
Q _y	0.2978 in ³

Part Materials

All	ASTM A36

**Plastic**

Z _x	268.1 in ³
Z _y	32.21 in ³
X _{pna}	-0.0236 in
Y _{pna}	1.869 in

Rectangle 4

Q _x	63.09 in ³
Q _y	0.6825 in ³

Part 8

Q _x	46.78 in ³
Q _y	0.263 in ³

Part 1

Q _x	2.917 in ³
Q _y	0.4502 in ³

Part 8!

Q _x	50.97 in ³
Q _y	0.2671 in ³



Shane Zeller

No Section Loss

Overall	
Depth	25.5 in
Width	8 in
Perimeter	80 in
Weight	114.5 lb/ft

Geometric	
Area	33.61 in ²
Ix	3657 in ⁴
Iy	93.03 in ⁴
Ixy	-8.955 in ⁴
rx	10.43 in
ry	1.664 in
Sx+	273.4 in ³
Sx-	301.7 in ³
Sy+	23.13 in ³
Sy-	23.38 in ³
Xc	-0.0219 in
Yc	-0.6273 in

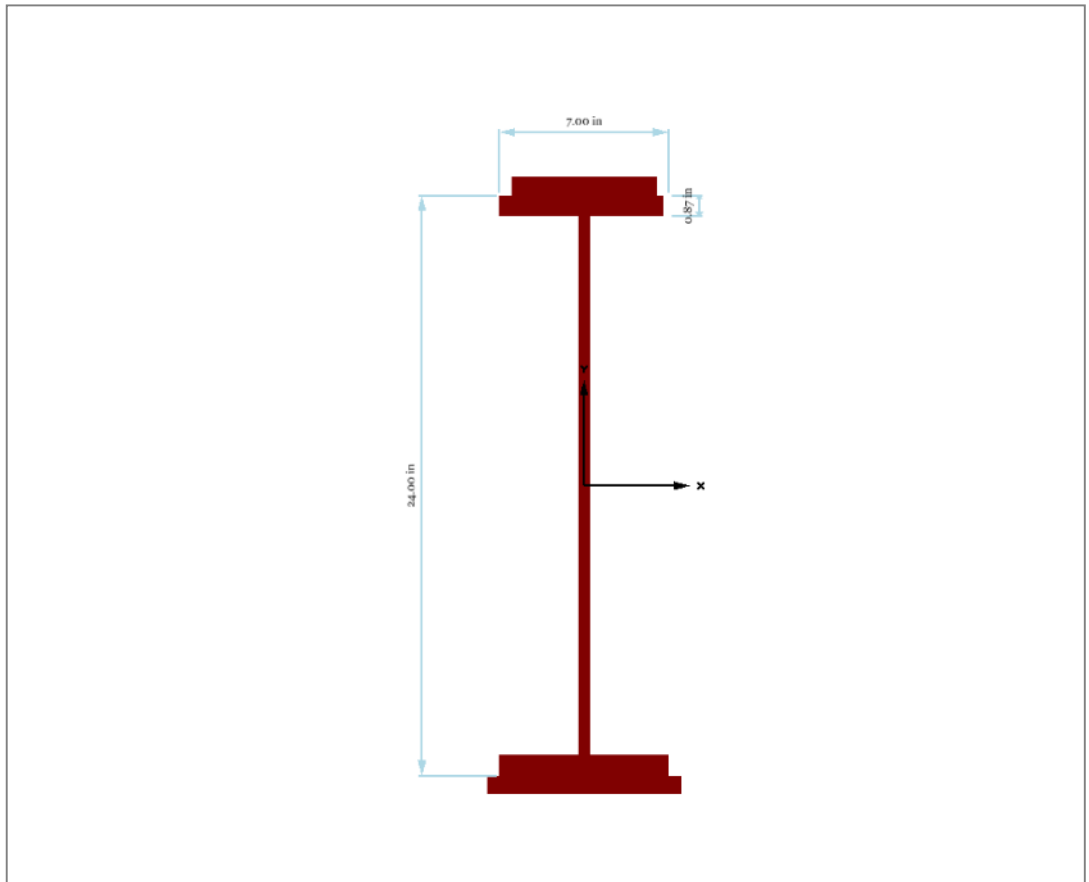
Principal	
I1	3657 in ⁴
I2	93.01 in ⁴
α	0.144 deg
r1	10.43 in
r2	1.664 in
S1+	273.2 in ³
S1-	301.4 in ³
S2+	23.29 in ³
S2-	23.2 in ³

Polar	
Ip	3750 in ⁴
rp	10.56 in

Rectangle 4!	
Qx	66.68 in ³
Qy	0.1333 in ³

FEA Mesh	
Nodes	2337
Elements	1845
Largest Element	0.2222 in ²

Part Materials	
All	ASTM A36



Plastic	
Zx	328.9 in ³
Zy	40.75 in ³
Xpna	-0.0043 in
Ypna	-1.718 in

Torsion	
ro	10.76 in
H	0.9647
Xsc	0.0357 in
Ysc	-2.649 in
Cw	1.253E+004 in ⁶
J	17.91 in ⁴
B1	5.002 in

Rectangle 4	
Qx	71.68 in ³
Qy	0.606 in ³

Part 8	
Qx	58.51 in ³
Qy	0.0984 in ³

Minimum Results	
Warping Function	-52.18 in ²

Part 1	
Qx	6.981 in ³
Qy	0.2432 in ³

Part 8!	
Qx	70.49 in ³
Qy	0.1311 in ³

Maximum Results	
Warping Function	53.4 in ²

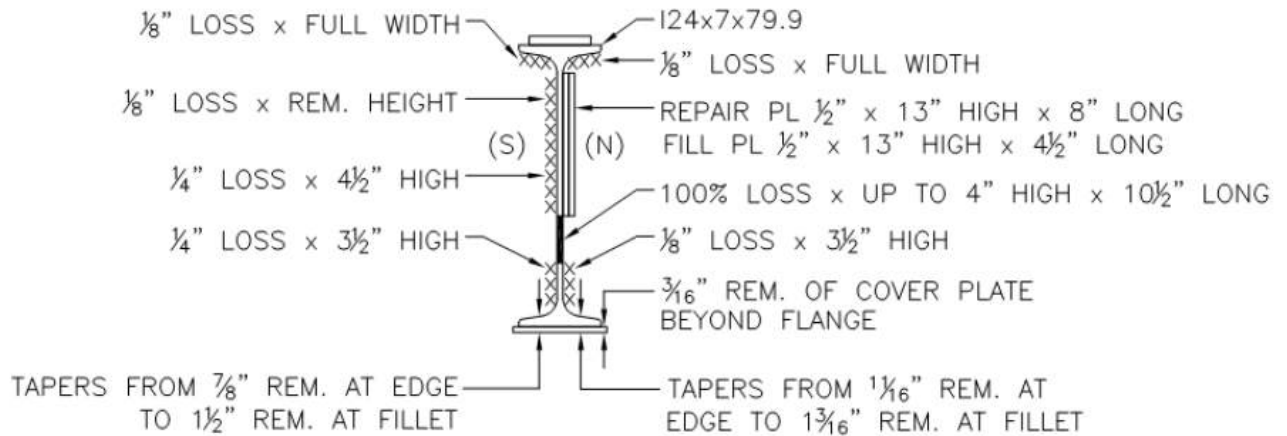


INSPECTION SKETCHES

FLOORBEAM SECTIONS USED FOR LOAD RATING:

Taken from HNTB 2017 Routine and Fracture Critical Inspection

2 conditions considered: severe and moderate

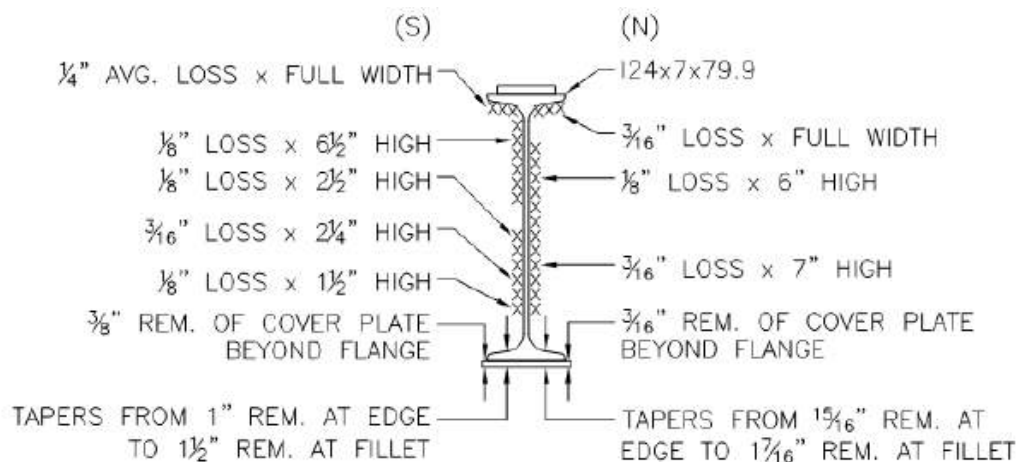


NOTES:

1. SIMILAR CONDITION ON THIS FLOORBEAM AT STRINGERS S3 & S4.
2. SIMILAR LESS SEVERE CONDITION ON THIS FLOORBEAM AT STRINGERS S5 THROUGH S8.

SPAN 4, FLOORBEAM FB2S AT STRINGER S2

(Severe condition for moment and shear)

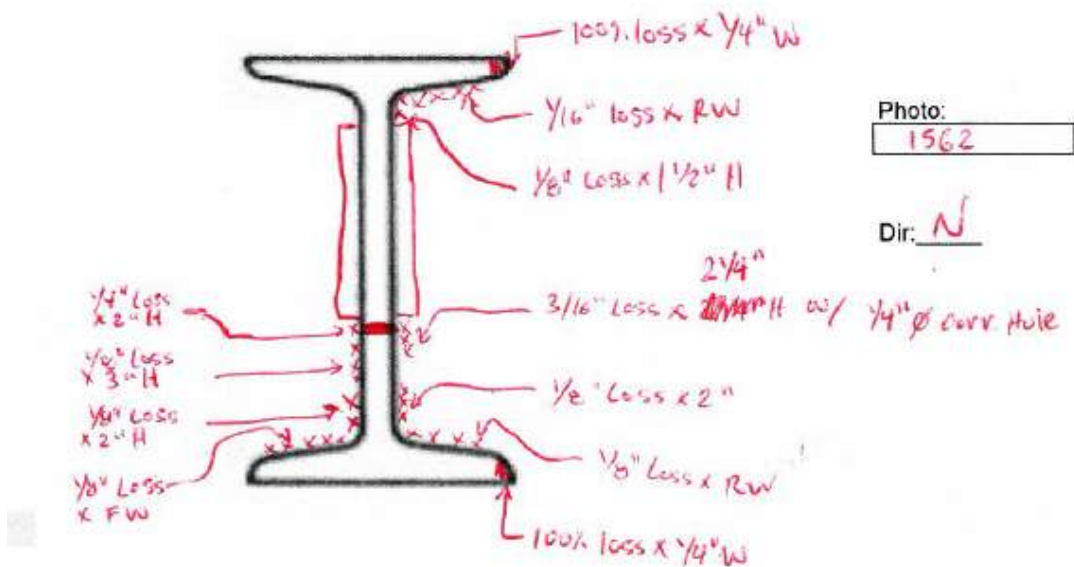


NOTES:

1. SIMILAR CONDITION AT MIDSPAN.
2. SPAN 4, FLOORBEAMS FB2N, FB3N, FB4N & FB6 AT STRINGER S2: SIMILAR LESS SEVERE CONDITION.

SPAN 4, FLOORBEAM FB5S AT STRINGER S2

(Severe condition for moment and shear)



SPAN 2, FLOORBEAM FB4N AT STRINGER S1

(Moderate condition for moment and shear)

FLOORBEAM CAPACITY CALCULATION

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 1

Is the section in Positive Flexure?
 Is the section Composite?

Compression Flange Bracing?

Constants
 $E =$
 $\phi_f =$ AASHTO 6.5.4.2

Geometry
 $L_b =$ unbraced length of section under evaluation
 $f_1 =$ See AASHTO appendix C6.4.10
 $f_2 =$ See AASHTO appendix C6.4.11, max
 $f_{mid} =$ Primary bending stress at mid of L_b without lateral bending
 Cb to be taken as 1.0 for simple span @ midspan

Section Properties			note: 2nd section only used if non-prismatic is considered for LTB
	pt. sect.	2nd sect.	
Section	1	NA	
$b_{fc} =$	6.13 in	0.00 in	compression flange
$t_{fc} =$	1.51 in	0.000 in	compression flange
$tw =$	0.53 in	0.000 in	
$D =$	22.26 in	0.00 in	web depth only
$D_c =$	11.13 in	0.00 in	
$D_n =$	11.13 in	0.00 in	
$F_{yc} =$	30.0 ksi	0.0 ksi	compression flange
$F_{yw} =$	30.0 ksi	0.0 ksi	per AASHTO MBE Table 6B.5.2.1-1
$F_{yt} =$	30.0 ksi	0.0 ksi	and age of bridge

Non-Prismatic Check:

Is there a section change between brace points? if "NO" stop non-prismatic check

Is the smaller moment at the small section?

Section change dist.: distance from change to smaller section brace
 Section change dist.: distance from change to large section brace
 $I_{y \text{ comp flange}} =$

% $L_b =$
 check I_y ratios =

Non-Prismatic check: Non-Prismatic: No

For Madawaska Bridge Load Rating	Job No. 63738	Sheet No.
Made by SMZ	Checked by EMG	Backchecked by SMZ
Date 10/3/17	Date 10/08/17	Date 10/10/17

Floorbeam Flexure Capacity - Analysis Section 1

Is the section in Positive Flexure?

Member Capacity Calculations:

Determine Web Load-Shedding Factor

$$\begin{aligned} D/t_w &= 41.63 \\ D/t_w &\leq 150 \quad \text{True} \quad \text{AASHTO 6.10.2.1.1-1} \end{aligned}$$

Does the Web satisfy AASHTO 6.10.2.1.1?

$$2D_c/t_w = 41.63$$

$$\lambda_{rw} = 5.7\sqrt{E/F_{yc}} = 177.22 \quad \text{AASHTO 6.10.1.10.2-4}$$

$$2D_c/t_w < \lambda_{rw} \quad \text{True} \quad \text{AASHTO 6.10.1.10.2-2}$$

To compute R_b use: **1.00**

$$\text{AASHTO 6.10.1.10.2-3} \quad R_b = 1 - (a_{wc}/(1200 + 300a_{wc}))(2D_c/t_w - \lambda_{rw}) < 1.0$$

$$a_{wc} = (2D_c \cdot t_w)/(b_{fc} \cdot t_{fc}) = 1.29 \quad \text{AASHTO 6.10.1.10.2-5}$$

$$R_b = 1.00$$

Determine Hybrid Factor

$$R_h = 1.00 \quad \text{AASHTO 6.10.1.10.1}$$

assumes that the web never has a yield strength less than the flanges

Determine Local buckling Resistance (FLB, Flange Local buckling)

$$\begin{aligned} \lambda_f &= b_{fc}/(2t_{fc}) = 2.03 \quad \text{AASHTO 6.10.8.2.2-3} \\ \lambda_{pf} &= 0.38\sqrt{E/F_{yc}} = 11.81 \quad \text{AASHTO 6.10.8.2.2-4} \\ \lambda_{rf} &= 0.56\sqrt{E/F_{yc}} = 17.41 \quad \text{AASHTO 6.10.8.2.2-5} \end{aligned}$$

$$\lambda_f \leq \lambda_{pf} = \text{True}$$

$$F_{yr} = \min \text{ of } (0.7F_{yc}, F_{yw}) \leq 0.5F_{yc} = 21.0 \text{ ksi} \quad \text{AASHTO 6.10.8.2.2} \quad (\text{pg 6-144})$$

$$F_{nc} = \text{AASHTO 6.10.8.2.2-1}$$

$$\text{AASHTO 6.10.8.2.2-1} \quad F_{nc} = R_b R_h F_{yc}$$

$$F_{nc(FLB)} = 30.0 \text{ ksi}$$

$$\text{AASHTO 6.10.8.2.2-2} \quad F_{nc} = \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) \left(\frac{\lambda_f - \lambda_{pf}}{\lambda_{rf} - \lambda_{pf}} \right) \right) R_b R_h F_{yc}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 1

Is the section in Positive Flexure?

$$F_{nc(FLB)} = \text{NA}$$

Determine Lateral Torsional buckling Resistance (LTB)

$$r_t = b_{fc} / \sqrt{12 * (1 + (1/3 * (D_c * t_w) / (b_{fc} * t_{fc})))}$$
 AASHTO 6.10.8.2.3-9

	Section pt. sect.	2nd sect.	
$r_t =$	1.60 in	NA	effective radius of gyration
$L_b =$	31.00 in		
$L_p = 1.0 * r_t \sqrt{E / F_{yc}} =$	49.87 in	NA	AASHTO 6.10.8.2.3-4
$L_r = \pi * r_t \sqrt{E / F_{yr}} =$	187.26 in	NA	AASHTO 6.10.8.2.3-5

$f_1 =$	0.0 ksi	Cb to be taken as 1.0 for simple span @ midspan
$f_2 =$	0.0 ksi	
$f_{mid} =$	0.0 ksi	

$$C_b \text{ Equation} = \text{AASHTO 6.10.8.2.3-6}$$

AASHTO 6.10.8.2.3-6

$$C_b = \text{NA}$$
 for non-prismatic section $C_b = 1.0$

AASHTO 6.10.8.2.3-7 $C_b = 1.75 - 1.05(F_1/F_2) + 0.3(F_1/F_2)^2 \leq 2.3$

$$C_b = \text{NA}$$

$L_b \leq L_p$	Yes	NA	Use AASHTO 6.10.8.2.3-1
$L_p < L_b \leq L_r$	No	NA	

AASHTO 6.10.8.2.3-1 $F_{nc(LTB)} = R_b R_h F_{yc}$

$$F_{nc(LTB)} = \text{30}$$

$$\text{AASHTO 6.10.8.2.3-2 } F_{nc(LTB)} = C_b \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) * \left(\frac{L_b - L_p}{L_r - L_p} \right) \right) R_b R_h F_{yc} \leq R_b R_h F_{yc}$$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{cr} = (C_b R_b \pi^2 E) / (L_b / r_t)^2 = \text{NA}$$
 AASHTO 6.10.8.2.3-8

AASHTO 6.10.8.2.3-3 $F_{nc(LTB)} = F_{cr} < R_b R_h F_{yc}$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{nc(LTB)} = \text{30.00 ksi}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 1

Is the section in Positive Flexure?

Compression Flange (Composite Section Negative Flexure, or NonComposite section):

$$F_{nc} = \min(F_{nc(FLB)}, F_{nc(LTB)}) = \boxed{30.0 \text{ ksi}}$$

$$\Phi_f F_{nc} = \boxed{30.0 \text{ ksi}}$$

Tension Flange (Non-composite Section or Composite Negative Flexure):

Determine Tension Flange Resistance

Bracing =

$$\Phi_f F_{nt} = \Phi_f R_h F_y = \boxed{30.0 \text{ ksi}} \text{ AASHTO 6.10.8.1.2-1}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Shear Capacity - Analysis Section 1

Geometry
stiffener spacing (*Near) = = *enter both only if point is at a stiffener
stiffener spacing (*Far) = =

Section Properties
Large Small note: small section only used if section change within panel
 b_{fc} = compression flange
 t_{fc} = compression flange
 b_{ft} = tension flange
 t_{ft} = tension flange
 tw =
 D = web depth only
 Fyw =

Constants
 E =
 Φ_v = , AASHTO 6.5.4.2

Section information

$$V_u \leq \Phi_v V_n \quad \text{AASHTO 6.10.9.1-1}$$

Is the point of interest within an end panel?
if interior panel, is there a section change?

Stiffened web ? interior (stiffener spacing $\leq 3D$), Exterior (stiffener spacing $\leq 1.5D$)

Find K

d_o =
 K = AASHTO 6.10.9.3.2-7

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Shear Capacity - Analysis Section 1

Find C

$$D/t_w = 41.63$$

$$1.12 \sqrt{E \cdot K / F_{yw}} = 95.86$$

if $D/t_w \leq 1.12 \sqrt{E \cdot K / F_{yw}}$

$$C = 1.00 \text{ per AASHTO 6.10.9.3.2-4}$$

$$1.40 \sqrt{E \cdot K / F_{yw}} = 119.82$$

if $1.12 \sqrt{E \cdot K / F_{yw}} \leq D/t_w \leq 1.40 \sqrt{E \cdot K / F_{yw}}$

$$C = 1.12 / (D/t_w) \sqrt{E \cdot K / F_{yw}}$$

$$C = \text{NA} \text{ per AASHTO 6.10.9.3.2-5}$$

if $D/t_w > 1.40 \sqrt{E \cdot K / F_{yw}}$

$$C = 1.57 / (D/t_w)^2 \sqrt{E \cdot K / F_{yw}}$$

$$C = \text{NA} \text{ per AASHTO 6.10.9.3.2-6}$$

$$\text{controlling } C = 1.00$$

$$V_p = 0.58 F_{yw} D t_w, \text{ AASHTO 6.10.9.3.2-3}$$

$$V_p = 207.06 \text{ kips}$$

Nominal Resistance of Unstiffened Webs

$$V_n = V_{cr} = C V_p, \text{ AASHTO 6.10.9.2-1}$$

$$V_n = C V_p = \text{NA}$$

For Madawaska Bridge Load Rating	Job No. 63738	Sheet No.
Made by SMZ	Checked by EMG	Backchecked by SMZ
Date 10/3/17	Date 10/08/17	Date 10/10/17



Floorbeam Shear Capacity - Analysis Section 1

Nominal Resistance of Stiffened Webs

Check AASHTO 6.10.9.3.2-1 $\frac{2Dt_w}{(b_{fc} * t_{fc} + b_{ft} * t_{ft})} \leq 2.5$

AASHTO 6.10.9.3.2-1: 1.40 ≤ 2.5 TRUE

if AASHTO 6.10.9.3.2-1 is satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2}} \right] \quad \text{AASHTO 6.10.9.3.2-2}$$

$$V_n = \boxed{207.06 \text{ kips}}$$

if AASHTO 6.10.9.3.2-1 does not satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2 + \frac{d_o}{D}}} \right] \quad \text{AASHTO 6.10.9.3.2-8}$$

$$V_n = \boxed{\text{NA}}$$

Nominal Resistance of Stiffened Webs, End Panel

$$V_n = V_{cr} = C * V_p, \text{ AASHTO 6.10.9.3.3-1}$$

$$V_n = C V_p = \boxed{\text{NA}}$$

Shear Capacity

$$V_r = \Phi_v V_n = \boxed{207.06 \text{ kips}} \text{ per AASHTO 6.10.9.1-1}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 2

Is the section in Positive Flexure?
 Is the section Composite?

Compression Flange Bracing?

Constants
 $E =$
 $\phi_f =$ AASHTO 6.5.4.2

Geometry
 $L_b =$ unbraced length of section under evaluation
 $f_1 =$ See AASHTO appendix C6.4.10
 $f_2 =$ See AASHTO appendix C6.4.11, max
 $f_{mid} =$ Primary bending stress at mid of L_b without lateral bending
 Cb to be taken as 1.0 for simple span @ midspan

Section Properties			note: 2nd section only used if non-prismatic is considered for LTB
	pt. sect.	2nd sect.	
Section	1	NA	
$b_{fc} =$	6.13 in	0.00 in	compression flange
$t_{fc} =$	1.41 in	0.000 in	compression flange
$tw =$	0.33 in	0.000 in	
$D =$	22.26 in	0.00 in	web depth only
$D_c =$	11.13 in	0.00 in	
$D_n =$	11.13 in	0.00 in	
$F_{yc} =$	30.0 ksi	0.0 ksi	compression flange
$F_{yw} =$	30.0 ksi	0.0 ksi	per AASHTO MBE Table 6B.5.2.1-1
$F_{yt} =$	30.0 ksi	0.0 ksi	and age of bridge

Non-Prismatic Check:

Is there a section change between brace points? if "NO" stop non-prismatic check

Is the smaller moment at the small section?

Section change dist.: distance from change to smaller section brace
 Section change dist.: distance from change to large section brace
 $I_{y \text{ comp flange}} =$

% $L_b =$
 check I_y ratios =

Non-Prismatic check: Non-Prismatic: No

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 2

Is the section in Positive Flexure?

Member Capacity Calculations:

Determine Web Load-Shedding Factor

$$\begin{aligned} D/t_w &= \boxed{67.68} \\ D/t_w &\leq 150 \quad \boxed{\text{True}} \quad \text{AASHTO 6.10.2.1.1-1} \end{aligned}$$

Does the Web satisfy AASHTO 6.10.2.1.1?

$$2D_c/t_w = \boxed{67.68}$$

$$\lambda_{rw} = 5.7\sqrt{E/F_{yc}} = \boxed{177.22} \quad \text{AASHTO 6.10.1.10.2-4}$$

$$2D_c/t_w < \lambda_{rw} \quad \boxed{\text{True}} \quad \text{AASHTO 6.10.1.10.2-2}$$

To compute R_b use: **1.00**

$$\text{AASHTO 6.10.1.10.2-3} \quad R_b = 1 - (a_{wc}/(1200 + 300a_{wc}))(2D_c/t_w - \lambda_{rw}) < 1.0$$

$$a_{wc} = (2D_c \cdot t_w)/(b_{fc} \cdot t_{fc}) = \boxed{0.85} \quad \text{AASHTO 6.10.1.10.2-5}$$

$$R_b = \boxed{1.00}$$

Determine Hybrid Factor

$$R_h = \boxed{1.00} \quad \text{AASHTO 6.10.1.10.1}$$

assumes that the web never has a yield strength less than the flanges

Determine Local buckling Resistance (FLB, Flange Local buckling)

$$\begin{aligned} \lambda_f &= b_{fc}/(2t_{fc}) = \boxed{2.18} \quad \text{AASHTO 6.10.8.2.2-3} \\ \lambda_{pf} &= 0.38\sqrt{E/F_{yc}} = \boxed{11.81} \quad \text{AASHTO 6.10.8.2.2-4} \\ \lambda_{rf} &= 0.56\sqrt{E/F_{yc}} = \boxed{17.41} \quad \text{AASHTO 6.10.8.2.2-5} \end{aligned}$$

$$\lambda_f \leq \lambda_{pf} = \boxed{\text{True}}$$

$$F_{yr} = \min \text{ of } (0.7F_{yc}, F_{yw}) \leq 0.5F_{yc} = \boxed{21.0 \text{ ksi}} \quad \text{AASHTO 6.10.8.2.2} \quad (\text{pg 6-144})$$

$$F_{nc} = \text{AASHTO 6.10.8.2.2-1}$$

$$\text{AASHTO 6.10.8.2.2-1} \quad F_{nc} = R_b R_h F_{yc}$$

$$F_{nc(\text{FLB})} = \boxed{30.0 \text{ ksi}}$$

$$\text{AASHTO 6.10.8.2.2-2} \quad F_{nc} = \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) \left(\frac{\lambda_f - \lambda_{pf}}{\lambda_{rf} - \lambda_{pf}} \right) \right) R_b R_h F_{yc}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 2

Is the section in Positive Flexure?

$$F_{nc(FLB)} = \text{NA}$$

Determine Lateral Torsional buckling Resistance (LTB)

$$r_t = b_{fc} / \sqrt{12 * (1 + (1/3 * (D_c * t_w) / (b_{fc} * t_{fc})))}$$
 AASHTO 6.10.8.2.3-9

	Section pt. sect.	2nd sect.	
r_t	1.65 in	NA	effective radius of gyration
L_b	31.00 in		
$L_p = 1.0 * r_t \sqrt{E/F_{yc}}$	51.45 in	NA	AASHTO 6.10.8.2.3-4
$L_r = \pi * r_t \sqrt{E/F_{yr}}$	193.19 in	NA	AASHTO 6.10.8.2.3-5

f_1	0.0 ksi	Cb to be taken as 1.0 for simple span @ midspan
f_2	0.0 ksi	
f_{mid}	0.0 ksi	

$$C_b \text{ Equation} = \text{AASHTO 6.10.8.2.3-6}$$

AASHTO 6.10.8.2.3-6

$$C_b = \text{NA}$$
 for non-prismatic section $C_b = 1.0$

$$\text{AASHTO 6.10.8.2.3-7 } C_b = 1.75 - 1.05(F_1/F_2) + 0.3(F_1/F_2)^2 \leq 2.3$$

$$C_b = \text{NA}$$

$L_b \leq L_p$	Yes	NA	Use AASHTO 6.10.8.2.3-1
$L_p < L_b \leq L_r$	No	NA	

$$\text{AASHTO 6.10.8.2.3-1 } F_{nc(LTB)} = R_b R_h F_{yc}$$

$$F_{nc(LTB)} = \text{30}$$

$$\text{AASHTO 6.10.8.2.3-2 } F_{nc(LTB)} = C_b \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) * \left(\frac{L_b - L_p}{L_r - L_p} \right) \right) R_b R_h F_{yc} \leq R_b R_h F_{yc}$$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{cr} = (C_b R_b \pi^2 E) / (L_b / r_t)^2 = \text{NA}$$
 AASHTO 6.10.8.2.3-8

$$\text{AASHTO 6.10.8.2.3-3 } F_{nc(LTB)} = F_{cr} < R_b R_h F_{yc}$$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{nc(LTB)} = \text{30.00 ksi}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 2

Is the section in Positive Flexure?

Compression Flange (Composite Section Negative Flexure, or NonComposite section):

$$F_{nc} = \min(F_{nc(FLB)}, F_{nc(LTB)}) = \text{30.0 ksi}$$

$$\Phi_f F_{nc} = \text{30.0 ksi}$$

Tension Flange (Non-composite Section or Composite Negative Flexure):

Determine Tension Flange Resistance

Bracing =

$$\Phi_f F_{nt} = \Phi_f R_h F_{yt} = \text{30.0 ksi} \text{ AASHTO 6.10.8.1.2-1}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Shear Capacity - Analysis Section 2

Geometry
stiffener spacing (*Near) = = *enter both only if point is at a stiffener
stiffener spacing (*Far) = =

Section Properties

	Large	Small	
b_{fc} =	6.13 in		compression flange
t_{fc} =	1.41 in		compression flange
b_{ft} =	7.50 in		tension flange
t_{ft} =	1.17 in		tension flange
tw =	0.33 in		
D =	22.26 in		web depth only
F_{yw} =	30.0 ksi		

note: small section only used if section change within panel

Constants
 E =
 Φ_v = , AASHTO 6.5.4.2

Section information

$$V_u \leq \Phi_v V_n \quad \text{AASHTO 6.10.9.1-1}$$

Is the point of interest within an end panel?
if interior panel, is there a section change?

Stiffened web ? interior (stiffener spacing $\leq 3D$), Exterior (stiffener spacing $\leq 1.5D$)

Find K

d_o =
 K = AASHTO 6.10.9.3.2-7

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17

Floorbeam Shear Capacity - Analysis Section 2

Find C

$$D/t_w = 67.68$$

$$1.12\sqrt{E*K/F_{yw}} = 95.86$$

if $D/t_w \leq 1.12\sqrt{E*K/F_{yw}}$

$$C = 1.00 \text{ per AASHTO 6.10.9.3.2-4}$$

$$1.40\sqrt{E*K/F_{yw}} = 119.82$$

if $1.12\sqrt{E*K/F_{yw}} \leq D/t_w \leq 1.40\sqrt{E*K/F_{yw}}$

$$C = 1.12/(D/t_w)\sqrt{E*K/F_{yw}}$$

$$C = \text{NA} \text{ per AASHTO 6.10.9.3.2-5}$$

if $D/t_w > 1.40\sqrt{E*K/F_{yw}}$

$$C = 1.57/(D/t_w)^2\sqrt{E*K/F_{yw}}$$

$$C = \text{NA} \text{ per AASHTO 6.10.9.3.2-6}$$

$$\text{controlling } C = 1.00$$

$$V_p = 0.58F_{yw}D t_w, \text{ AASHTO 6.10.9.3.2-3}$$

$$V_p = 127.37 \text{ kips}$$

Nominal Resistance of Unstiffened Webs

$$V_n = V_{cr} = C V_p, \text{ AASHTO 6.10.9.2-1}$$

$$V_n = C V_p = \text{NA}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17

Floorbeam Shear Capacity - Analysis Section 2

Nominal Resistance of Stiffened Webs

Check AASHTO 6.10.9.3.2-1 $\frac{2Dt_w}{(b_{fc} * t_{fc} + b_{ft} * t_{ft})} \leq 2.5$

AASHTO 6.10.9.3.2-1: 0.84 ≤ 2.5 TRUE

if AASHTO 6.10.9.3.2-1 is satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2}} \right] \quad \text{AASHTO 6.10.9.3.2-2}$$

$$V_n = \boxed{127.37 \text{ kips}}$$

if AASHTO 6.10.9.3.2-1 does not satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2 + \frac{d_o}{D}}} \right] \quad \text{AASHTO 6.10.9.3.2-8}$$

$$V_n = \boxed{\text{NA}}$$

Nominal Resistance of Stiffened Webs, End Panel

$$V_n = V_{cr} = C * V_p, \text{ AASHTO 6.10.9.3.3-1}$$

$$V_n = C V_p = \boxed{\text{NA}}$$

Shear Capacity

$$V_r = \Phi_v V_n = \boxed{127.37 \text{ kips}} \text{ per AASHTO 6.10.9.1-1}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 3

Is the section in Positive Flexure?
 Is the section Composite?

Compression Flange Bracing?

Constants
 $E =$
 $\phi_f =$ AASHTO 6.5.4.2

Geometry
 $L_b =$ unbraced length of section under evaluation
 $f_1 =$ See AASHTO appendix C6.4.10
 $f_2 =$ See AASHTO appendix C6.4.11, max
 $f_{mid} =$ Primary bending stress at mid of L_b without lateral bending
 Cb to be taken as 1.0 for simple span @ midspan

Section Properties			note: 2nd section only used if non-prismatic is considered for LTB
	pt. sect.	2nd sect.	
Section	1	NA	
$b_{fc} =$	6.13 in	0.00 in	compression flange
$t_{fc} =$	1.57 in	0.000 in	compression flange
$t_w =$	0.41 in	0.000 in	
$D =$	22.26 in	0.00 in	web depth only
$D_c =$	11.13 in	0.00 in	
$D_n =$	11.13 in	0.00 in	
$F_{yc} =$	30.0 ksi	0.0 ksi	compression flange
$F_{yw} =$	30.0 ksi	0.0 ksi	per AASHTO MBE Table 6B.5.2.1-1
$F_{yt} =$	30.0 ksi	0.0 ksi	and age of bridge

Non-Prismatic Check:

Is there a section change between brace points? if "NO" stop non-prismatic check

Is the smaller moment at the small section?

Section change dist.: distance from change to smaller section brace
 Section change dist.: distance from change to large section brace
 $I_{y \text{ comp flange}} =$

% $L_b =$
 check I_y ratios =

Non-Prismatic check: Non-Prismatic: No

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17

Floorbeam Flexure Capacity - Analysis Section 3

Is the section in Positive Flexure?

Member Capacity Calculations:

Determine Web Load-Shedding Factor

$$\begin{aligned} D/t_w &= \boxed{54.74} \\ D/t_w &\leq 150 \quad \boxed{\text{True}} \quad \text{AASHTO 6.10.2.1.1-1} \end{aligned}$$

Does the Web satisfy AASHTO 6.10.2.1.1?

$$2D_c/t_w = \boxed{54.74}$$

$$\lambda_{rw} = 5.7\sqrt{E/F_{yc}} = \boxed{177.22} \quad \text{AASHTO 6.10.1.10.2-4}$$

$$2D_c/t_w < \lambda_{rw} \quad \boxed{\text{True}} \quad \text{AASHTO 6.10.1.10.2-2}$$

To compute R_b use: **1.00**

$$\text{AASHTO 6.10.1.10.2-3} \quad R_b = 1 - (a_{wc}/(1200 + 300a_{wc}))(2D_c/t_w - \lambda_{rw}) < 1.0$$

$$a_{wc} = (2D_c \cdot t_w)/(b_{fc} \cdot t_{fc}) = \boxed{0.94} \quad \text{AASHTO 6.10.1.10.2-5}$$

$$R_b = \boxed{1.00}$$

Determine Hybrid Factor

$$R_h = \boxed{1.00} \quad \text{AASHTO 6.10.1.10.1}$$

assumes that the web never has a yield strength less than the flanges

Determine Local buckling Resistance (FLB, Flange Local buckling)

$$\begin{aligned} \lambda_f &= b_{fc}/(2t_{fc}) = \boxed{1.95} \quad \text{AASHTO 6.10.8.2.2-3} \\ \lambda_{pf} &= 0.38\sqrt{E/F_{yc}} = \boxed{11.81} \quad \text{AASHTO 6.10.8.2.2-4} \\ \lambda_{rf} &= 0.56\sqrt{E/F_{yc}} = \boxed{17.41} \quad \text{AASHTO 6.10.8.2.2-5} \end{aligned}$$

$$\lambda_f \leq \lambda_{pf} = \boxed{\text{True}}$$

$$F_{yr} = \min \text{ of } (0.7F_{yc}, F_{yw}) \leq 0.5F_{yc} = \boxed{21.0 \text{ ksi}} \quad \text{AASHTO 6.10.8.2.2} \quad (\text{pg 6-144})$$

$$F_{nc} = \text{AASHTO 6.10.8.2.2-1}$$

$$\text{AASHTO 6.10.8.2.2-1} \quad F_{nc} = R_b R_h F_{yc}$$

$$F_{nc(\text{FLB})} = \boxed{30.0 \text{ ksi}}$$

$$\text{AASHTO 6.10.8.2.2-2} \quad F_{nc} = \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) \left(\frac{\lambda_f - \lambda_{pf}}{\lambda_{rf} - \lambda_{pf}} \right) \right) R_b R_h F_{yc}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 3

Is the section in Positive Flexure?

$$F_{nc(FLB)} = \text{NA}$$

Determine Lateral Torsional buckling Resistance (LTB)

$$r_t = b_{fc} / \sqrt{12 * (1 + (1/3 * (D_c * t_w) / (b_{fc} * t_{fc})))}$$
 AASHTO 6.10.8.2.3-9

	Section pt. sect.	2nd sect.	
r_t	1.64 in	NA	effective radius of gyration
L_b	31.00 in		
$L_p = 1.0 * r_t \sqrt{E/F_{yc}}$	51.11 in	NA	AASHTO 6.10.8.2.3-4
$L_r = \pi * r_t \sqrt{E/F_{yr}}$	191.92 in	NA	AASHTO 6.10.8.2.3-5

f_1	0.0 ksi	Cb to be taken as 1.0 for simple span @ midspan
f_2	0.0 ksi	
f_{mid}	0.0 ksi	

$$C_b \text{ Equation} = \text{AASHTO 6.10.8.2.3-6}$$

AASHTO 6.10.8.2.3-6

$$C_b = \text{NA}$$
 for non-prismatic section $C_b = 1.0$

AASHTO 6.10.8.2.3-7 $C_b = 1.75 - 1.05(F_1/F_2) + 0.3(F_1/F_2)^2 \leq 2.3$

$$C_b = \text{NA}$$

$L_b \leq L_p$	Yes	NA	Use AASHTO 6.10.8.2.3-1
$L_p < L_b \leq L_r$	No	NA	

AASHTO 6.10.8.2.3-1 $F_{nc(LTB)} = R_b R_h F_{yc}$

$$F_{nc(LTB)} = \text{30}$$

$$\text{AASHTO 6.10.8.2.3-2 } F_{nc(LTB)} = C_b \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) * \left(\frac{L_b - L_p}{L_r - L_p} \right) \right) R_b R_h F_{yc} \leq R_b R_h F_{yc}$$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{cr} = (C_b R_b \pi^2 E) / (L_b / r_t)^2 = \text{NA}$$
 AASHTO 6.10.8.2.3-8

AASHTO 6.10.8.2.3-3 $F_{nc(LTB)} = F_{cr} < R_b R_h F_{yc}$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{nc(LTB)} = \text{30.00 ksi}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - Analysis Section 3

Is the section in Positive Flexure?

Compression Flange (Composite Section Negative Flexure, or NonComposite section):

$$F_{nc} = \min(F_{nc(FLB)}, F_{nc(LTB)}) = \boxed{30.0 \text{ ksi}}$$

$$\Phi_f F_{nc} = \boxed{30.0 \text{ ksi}}$$

Tension Flange (Non-composite Section or Composite Negative Flexure):

Determine Tension Flange Resistance

Bracing =

$$\Phi_f F_{nt} = \Phi_f R_h F_{yt} = \boxed{30.0 \text{ ksi}} \text{ AASHTO 6.10.8.1.2-1}$$

For Madawaska Bridge Load Rating	Job No. 63738	Sheet No.
Made by SMZ	Checked by EMG	Backchecked by SMZ
Date 10/3/17	Date 10/08/17	Date 10/10/17



Floorbeam Shear Capacity - Analysis Section 3

Geometry
stiffener spacing (*Near) = 2.583 ft = 31.00 in *enter both only if point is at a stiffener
stiffener spacing (*Far) = 0.00 in

Section Properties
Large Small note: small section only used if section change within panel
 b_{fc} = 6.13 in compression flange
 t_{fc} = 1.57 in compression flange
 b_{ft} = 7.50 in tension flange
 t_{ft} = 1.25 in tension flange
 tw = 0.41 in
 D = 22.26 in web depth only
 Fyw = 30.0 ksi

Constants
 E = 29000 ksi
 Φ_v = 1.00, AASHTO 6.5.4.2

Section information

$$V_u \leq \Phi_v V_n \quad \text{AASHTO 6.10.9.1-1}$$

Is the point of interest within an end panel? No
if interior panel, is there a section change? No

Stiffened web ? Yes interior (stiffener spacing $\leq 3D$), Exterior (stiffener spacing $\leq 1.5D$)

Find K

d_o = 31.00 in
 K = 7.58 AASHTO 6.10.9.3.2-7

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Shear Capacity - Analysis Section 3

Find C

$$D/t_w = \boxed{54.74}$$

$$1.12 \sqrt{E \cdot K / F_{yw}} = \boxed{95.86}$$

if $D/t_w \leq 1.12 \sqrt{E \cdot K / F_{yw}}$

$$C = \boxed{1.00} \text{ per AASHTO 6.10.9.3.2-4}$$

$$1.40 \sqrt{E \cdot K / F_{yw}} = \boxed{119.82}$$

if $1.12 \sqrt{E \cdot K / F_{yw}} \leq D/t_w \leq 1.40 \sqrt{E \cdot K / F_{yw}}$

$$C = 1.12 / (D/t_w) \sqrt{E \cdot K / F_{yw}}$$

$$C = \boxed{NA} \text{ per AASHTO 6.10.9.3.2-5}$$

if $D/t_w > 1.40 \sqrt{E \cdot K / F_{yw}}$

$$C = 1.57 / (D/t_w)^2 \sqrt{E \cdot K / F_{yw}}$$

$$C = \boxed{NA} \text{ per AASHTO 6.10.9.3.2-6}$$

$$\text{controlling } C = \boxed{1.00}$$

$$V_p = 0.58 F_{yw} D t_w, \text{ AASHTO 6.10.9.3.2-3}$$

$$V_p = \boxed{157.47 \text{ kips}}$$

Nominal Resistance of Unstiffened Webs

$$V_n = V_{cr} = C V_p, \text{ AASHTO 6.10.9.2-1}$$

$$V_n = C V_p = \boxed{NA}$$

For Madawaska Bridge Load Rating	Job No. 63738	Sheet No.
Made by SMZ	Checked by EMG	Backchecked by SMZ
Date 10/3/17	Date 10/08/17	Date 10/10/17



Floorbeam Shear Capacity - Analysis Section 3

Nominal Resistance of Stiffened Webs

Check AASHTO 6.10.9.3.2-1 $\frac{2Dt_w}{(b_{fc} * t_{fc} + b_{ft} * t_{ft})} \leq 2.5$

AASHTO 6.10.9.3.2-1: 0.95 ≤ 2.5 TRUE

if AASHTO 6.10.9.3.2-1 is satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2}} \right] \quad \text{AASHTO 6.10.9.3.2-2}$$

$$V_n = \boxed{157.47 \text{ kips}}$$

if AASHTO 6.10.9.3.2-1 does not satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2 + \frac{d_o}{D}}} \right] \quad \text{AASHTO 6.10.9.3.2-8}$$

$$V_n = \boxed{\text{NA}}$$

Nominal Resistance of Stiffened Webs, End Panel

$$V_n = V_{cr} = C * V_p, \text{ AASHTO 6.10.9.3.3-1}$$

$$V_n = C V_p = \boxed{\text{NA}}$$

Shear Capacity

$$V_r = \Phi_v V_n = \boxed{157.47 \text{ kips}} \text{ per AASHTO 6.10.9.1-1}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - No Section Loss (Base Shape w/ Cover Plates)

Is the section in Positive Flexure?
 Is the section Composite?

Compression Flange Bracing?

Constants
 $E =$
 $\phi_f =$ AASHTO 6.5.4.2

Geometry
 $L_b =$ unbraced length of section under evaluation
 $f_1 =$ See AASHTO appendix C6.4.10
 $f_2 =$ See AASHTO appendix C6.4.11, max
 $f_{mid} =$ Primary bending stress at mid of L_b without lateral bending
 Cb to be taken as 1.0 for simple span @ midspan

Section Properties		
	pt. sect.	2nd sect.
Section	1	NA
$b_{fc} =$	6.13 in	0.00 in
$t_{fc} =$	1.63 in	0.000 in
$t_w =$	0.41 in	0.000 in
$D =$	22.26 in	0.00 in
$D_c =$	11.13 in	0.00 in
$D_n =$	11.13 in	0.00 in
$F_{yc} =$	30.0 ksi	0.0 ksi
$F_{yw} =$	30.0 ksi	0.0 ksi
$F_{yt} =$	30.0 ksi	0.0 ksi
		note: 2nd section only used if non-prismatic is considered for LTB
		compression flange
		compression flange
		web depth only
		compression flange
		per AASHTO MBE Table 6B.5.2.1-1
		and age of bridge

Non-Prismatic Check:

Is there a section change between brace points? if "NO" stop non-prismatic check

Is the smaller moment at the small section?

Section change dist.: distance from change to smaller section brace
 Section change dist.: distance from change to large section brace
 $I_{y \text{ comp flange}} =$

% $L_b =$
 check I_y ratios =

Non-Prismatic check: Non-Prismatic: No

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17

Floorbeam Flexure Capacity - No Section Loss (Base Shape w/ Cover Plates)

Is the section in Positive Flexure?

Member Capacity Calculations:

Determine Web Load-Shedding Factor

$$\begin{aligned} D/t_w &= \boxed{54.74} \\ D/t_w &\leq 150 \quad \boxed{\text{True}} \quad \text{AASHTO 6.10.2.1.1-1} \end{aligned}$$

Does the Web satisfy AASHTO 6.10.2.1.1?

$$2D_c/t_w = \boxed{54.74}$$

$$\lambda_{rw} = 5.7\sqrt{E/F_{yc}} = \boxed{177.22} \quad \text{AASHTO 6.10.1.10.2-4}$$

$$2D_c/t_w < \lambda_{rw} \quad \boxed{\text{True}} \quad \text{AASHTO 6.10.1.10.2-2}$$

To compute R_b use: **1.00**

$$\text{AASHTO 6.10.1.10.2-3} \quad R_b = 1 - (a_{wc}/(1200 + 300a_{wc}))(2D_c/t_w - \lambda_{rw}) < 1.0$$

$$a_{wc} = (2D_c \cdot t_w)/(b_{fc} \cdot t_{fc}) = \boxed{0.91} \quad \text{AASHTO 6.10.1.10.2-5}$$

$$R_b = \boxed{1.00}$$

Determine Hybrid Factor

$$R_h = \boxed{1.00} \quad \text{AASHTO 6.10.1.10.1}$$

assumes that the web never has a yield strength less than the flanges

Determine Local buckling Resistance (FLB, Flange Local buckling)

$$\begin{aligned} \lambda_f &= b_{fc}/(2t_{fc}) = \boxed{1.88} \quad \text{AASHTO 6.10.8.2.2-3} \\ \lambda_{pf} &= 0.38\sqrt{E/F_{yc}} = \boxed{11.81} \quad \text{AASHTO 6.10.8.2.2-4} \\ \lambda_{rf} &= 0.56\sqrt{E/F_{yc}} = \boxed{17.41} \quad \text{AASHTO 6.10.8.2.2-5} \end{aligned}$$

$$\lambda_f \leq \lambda_{pf} = \boxed{\text{True}}$$

$$F_{yr} = \min \text{ of } (0.7F_{yc}, F_{yw}) \leq 0.5F_{yc} = \boxed{21.0 \text{ ksi}} \quad \text{AASHTO 6.10.8.2.2} \quad (\text{pg 6-144})$$

$$F_{nc} = \text{AASHTO 6.10.8.2.2-1}$$

$$\text{AASHTO 6.10.8.2.2-1} \quad F_{nc} = R_b R_h F_{yc}$$

$$F_{nc(\text{FLB})} = \boxed{30.0 \text{ ksi}}$$

$$\text{AASHTO 6.10.8.2.2-2} \quad F_{nc} = \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) \left(\frac{\lambda_f - \lambda_{pf}}{\lambda_{rf} - \lambda_{pf}} \right) \right) R_b R_h F_{yc}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - No Section Loss (Base Shape w/ Cover Plates)

Is the section in Positive Flexure?

$$F_{nc(FLB)} = \text{NA}$$

Determine Lateral Torsional buckling Resistance (LTB)

$$r_t = b_{fc} / \sqrt{12 * (1 + (1/3 * (D_c * t_w) / (b_{fc} * t_{fc})))}$$
 AASHTO 6.10.8.2.3-9

	Section pt. sect.	2nd sect.	
r_t	1.65 in	NA	effective radius of gyration
L_b	31.00 in		
$L_p = 1.0 * r_t \sqrt{E / F_{yc}}$	51.24 in	NA	AASHTO 6.10.8.2.3-4
$L_r = \pi * r_t \sqrt{E / F_{yr}}$	192.40 in	NA	AASHTO 6.10.8.2.3-5

f_1	0.0 ksi	Cb to be taken as 1.0 for simple span @ midspan
f_2	0.0 ksi	
f_{mid}	0.0 ksi	

$$C_b \text{ Equation} = \text{AASHTO 6.10.8.2.3-6}$$

AASHTO 6.10.8.2.3-6

$$C_b = \text{NA}$$
 for non-prismatic section $C_b = 1.0$

AASHTO 6.10.8.2.3-7 $C_b = 1.75 - 1.05(F_1/F_2) + 0.3(F_1/F_2)^2 \leq 2.3$

$$C_b = \text{NA}$$

$L_b \leq L_p$	Yes	NA	Use AASHTO 6.10.8.2.3-1
$L_p < L_b \leq L_r$	No	NA	

AASHTO 6.10.8.2.3-1 $F_{nc(LTB)} = R_b R_h F_{yc}$

$$F_{nc(LTB)} = \text{30}$$

$$\text{AASHTO 6.10.8.2.3-2 } F_{nc(LTB)} = C_b \left(1 - \left(1 - \frac{F_{yr}}{R_h F_{yc}} \right) * \left(\frac{L_b - L_p}{L_r - L_p} \right) \right) R_b R_h F_{yc} \leq R_b R_h F_{yc}$$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{cr} = (C_b R_b \pi^2 E) / (L_b / r_t)^2 = \text{NA}$$
 AASHTO 6.10.8.2.3-8

AASHTO 6.10.8.2.3-3 $F_{nc(LTB)} = F_{cr} < R_b R_h F_{yc}$

$$F_{nc(LTB)} = \text{NA}$$

$$F_{nc(LTB)} = \text{30.00 ksi}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/08/17	Date	10/10/17



Floorbeam Flexure Capacity - No Section Loss (Base Shape w/ Cover Plates)

Is the section in Positive Flexure?

Compression Flange (Composite Section Negative Flexure, or NonComposite section):

$$F_{nc} = \min(F_{nc(FLB)}, F_{nc(LTB)}) = \boxed{30.0 \text{ ksi}}$$

$$\Phi_f F_{nc} = \boxed{30.0 \text{ ksi}}$$

Tension Flange (Non-composite Section or Composite Negative Flexure):

Determine Tension Flange Resistance

Bracing =

$$\Phi_f F_{nt} = \Phi_f R_h F_{yt} = \boxed{30.0 \text{ ksi}} \text{ AASHTO 6.10.8.1.2-1}$$

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/8/17	Date	10/10/17



Floorbeam Shear Capacity - No Section Loss (Base Shape w/ Cover Plates)

Geometry
stiffener spacing (*Near) = = *enter both only if point is at a stiffener
stiffener spacing (*Far) = =

Section Properties

	Large	Small	
b_{fc} =	6.13 in		compression flange
t_{fc} =	1.63 in		compression flange
b_{ft} =	7.50 in		tension flange
t_{ft} =	1.34 in		tension flange
tw =	0.50 in		
D =	22.26 in		web depth only
F_{yw} =	30.0 ksi		

note: small section only used if section change within panel

Constants
 E =
 Φ_v = , AASHTO 6.5.4.2

Section information

$$V_u \leq \Phi_v V_n \quad \text{AASHTO 6.10.9.1-1}$$

Is the point of interest within an end panel?
if interior panel, is there a section change?

Stiffened web ? interior (stiffener spacing $\leq 3D$), Exterior (stiffener spacing $\leq 1.5D$)

Find K

d_o =
 K = AASHTO 6.10.9.3.2-7

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/3/17	Date	10/8/17	Date	10/10/17

HNTB

Floorbeam Shear Capacity - No Section Loss (Base Shape w/ Cover Plates)

Find C

$$D/t_w = 44.52$$

$$1.12\sqrt{E*K/F_{yw}} = 95.86$$

if $D/t_w \leq 1.12\sqrt{E*K/F_{yw}}$

$$C = 1.00 \text{ per AASHTO 6.10.9.3.2-4}$$

$$1.40\sqrt{E*K/F_{yw}} = 119.82$$

if $1.12\sqrt{E*K/F_{yw}} \leq D/t_w \leq 1.40\sqrt{E*K/F_{yw}}$

$$C = 1.12/(D/t_w)\sqrt{E*K/F_{yw}}$$

$$C = \text{NA} \text{ per AASHTO 6.10.9.3.2-5}$$

if $D/t_w > 1.40\sqrt{E*K/F_{yw}}$

$$C = 1.57/(D/t_w)^2\sqrt{E*K/F_{yw}}$$

$$C = \text{NA} \text{ per AASHTO 6.10.9.3.2-6}$$

$$\text{controlling } C = 1.00$$

$$V_p = 0.58F_{yw}D^2t_w, \text{ AASHTO 6.10.9.3.2-3}$$

$$V_p = 193.64 \text{ kips}$$

Nominal Resistance of Unstiffened Webs

$$V_n = V_{cr} = C*V_p, \text{ AASHTO 6.10.9.2-1}$$

$$V_n = C*V_p = \text{NA}$$

For Madawaska Bridge Load Rating	Job No. 63738	Sheet No.
Made by SMZ	Checked by EMG	Backchecked by SMZ
Date 10/3/17	Date 10/8/17	Date 10/10/17



Floorbeam Shear Capacity - No Section Loss (Base Shape w/ Cover Plates)

Nominal Resistance of Stiffened Webs

Check AASHTO 6.10.9.3.2-1 $\frac{2Dt_w}{(b_{fc} * t_{fc} + b_{ft} * t_{ft})} \leq 2.5$

AASHTO 6.10.9.3.2-1: 1.11 ≤ 2.5 TRUE

if AASHTO 6.10.9.3.2-1 is satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2}} \right] \quad \text{AASHTO 6.10.9.3.2-2}$$

$$V_n = \boxed{193.64 \text{ kips}}$$

if AASHTO 6.10.9.3.2-1 does not satisfied then:

$$V_n = V_p * \left[C + \frac{0.87(1 - C)}{\sqrt{1 + \left(\frac{d_o}{D}\right)^2 + \frac{d_o}{D}}} \right] \quad \text{AASHTO 6.10.9.3.2-8}$$

$$V_n = \boxed{\text{NA}}$$

Nominal Resistance of Stiffened Webs, End Panel

$$V_n = V_{cr} = C * V_p, \text{ AASHTO 6.10.9.3.3-1}$$

$$V_n = C V_p = \boxed{\text{NA}}$$

Shear Capacity

$$V_r = \Phi_v V_n = \boxed{193.64 \text{ kips}} \text{ per AASHTO 6.10.9.1-1}$$

HL-93 (TANDEM) STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version  20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:52: 7
*
*          USER ID: HNTB Corporation
*****

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1. STAAD PLANE
INPUT FILE: U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

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HL-93 Tandem.ANL

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42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * HL-93 TANDEM
51. TYPE 1 LOAD 25 25
52. DIST 4
53. *
54. * HL-93 TANDEM
55. LOAD GENERATION 87
56. TYPE 1 -4 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 5 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 6 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 7 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 8 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 80 WHEEL 2 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 81 WHEEL 2 OF 2
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
    STAAD PLANE

```

-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 87, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.5 MB

```

HL-93 Tandem.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * HL-93 TANDEM
 64. 1 TO 87 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.64	0.00	0.00	0.00	0.00
	3	0.00	1.28	0.00	0.00	0.00	0.00
	4	0.00	1.92	0.00	0.00	0.00	0.00
	5	0.00	2.56	0.00	0.00	0.00	0.00
	6	0.00	3.20	0.00	0.00	0.00	0.00
	7	0.00	3.84	0.00	0.00	0.00	0.00
	8	0.00	4.48	0.00	0.00	0.00	0.00
	9	0.00	5.12	0.00	0.00	0.00	0.00
	10	0.00	6.40	0.00	0.00	0.00	0.00
	11	0.00	7.68	0.00	0.00	0.00	0.00
	12	0.00	8.96	0.00	0.00	0.00	0.00
	13	0.00	10.23	0.00	0.00	0.00	0.00
	14	0.00	11.51	0.00	0.00	0.00	0.00
	15	0.00	12.79	0.00	0.00	0.00	0.00
	16	0.00	14.07	0.00	0.00	0.00	0.00
	17	0.00	15.35	0.00	0.00	0.00	0.00
	18	0.00	16.63	0.00	0.00	0.00	0.00
	19	0.00	17.91	0.00	0.00	0.00	0.00
	20	0.00	19.19	0.00	0.00	0.00	0.00
	21	0.00	20.47	0.00	0.00	0.00	0.00
	22	0.00	21.75	0.00	0.00	0.00	0.00
	23	0.00	23.03	0.00	0.00	0.00	0.00
	24	0.00	24.31	0.00	0.00	0.00	0.00
	25	0.00	25.59	0.00	0.00	0.00	0.00
	26	0.00	26.87	0.00	0.00	0.00	0.00
	27	0.00	28.14	0.00	0.00	0.00	0.00
	28	0.00	29.42	0.00	0.00	0.00	0.00
	29	0.00	30.70	0.00	0.00	0.00	0.00
	30	0.00	31.98	0.00	0.00	0.00	0.00
	31	0.00	33.26	0.00	0.00	0.00	0.00
	32	0.00	34.54	0.00	0.00	0.00	0.00
	33	0.00	35.82	0.00	0.00	0.00	0.00
	34	0.00	37.10	0.00	0.00	0.00	0.00
	35	0.00	38.38	0.00	0.00	0.00	0.00

Page 3

HL-93 Tandem.ANL

36	0.00	39.66	0.00	0.00	0.00	0.00
37	0.00	40.94	0.00	0.00	0.00	0.00
38	0.00	42.22	0.00	0.00	0.00	0.00
39	0.00	43.50	0.00	0.00	0.00	0.00
40	0.00	44.78	0.00	0.00	0.00	0.00
41	0.00	44.88	0.00	0.00	0.00	0.00
42	0.00	44.88	0.00	0.00	0.00	0.00
43	0.00	44.88	0.00	0.00	0.00	0.00
44	0.00	44.88	0.00	0.00	0.00	0.00
45	0.00	44.88	0.00	0.00	0.00	0.00
46	0.00	44.88	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	44.88	0.00	0.00	0.00	0.00	0.00
48	0.00	44.88	0.00	0.00	0.00	0.00	0.00
49	0.00	43.71	0.00	0.00	0.00	0.00	0.00
50	0.00	42.43	0.00	0.00	0.00	0.00	0.00
51	0.00	41.15	0.00	0.00	0.00	0.00	0.00
52	0.00	39.87	0.00	0.00	0.00	0.00	0.00
53	0.00	38.59	0.00	0.00	0.00	0.00	0.00
54	0.00	37.31	0.00	0.00	0.00	0.00	0.00
55	0.00	36.03	0.00	0.00	0.00	0.00	0.00
56	0.00	34.75	0.00	0.00	0.00	0.00	0.00
57	0.00	33.48	0.00	0.00	0.00	0.00	0.00
58	0.00	32.20	0.00	0.00	0.00	0.00	0.00
59	0.00	30.92	0.00	0.00	0.00	0.00	0.00
60	0.00	29.64	0.00	0.00	0.00	0.00	0.00
61	0.00	28.36	0.00	0.00	0.00	0.00	0.00
62	0.00	27.08	0.00	0.00	0.00	0.00	0.00
63	0.00	25.80	0.00	0.00	0.00	0.00	0.00
64	0.00	24.52	0.00	0.00	0.00	0.00	0.00
65	0.00	23.24	0.00	0.00	0.00	0.00	0.00
66	0.00	21.96	0.00	0.00	0.00	0.00	0.00
67	0.00	20.68	0.00	0.00	0.00	0.00	0.00
68	0.00	19.40	0.00	0.00	0.00	0.00	0.00
69	0.00	18.12	0.00	0.00	0.00	0.00	0.00
70	0.00	16.84	0.00	0.00	0.00	0.00	0.00
71	0.00	15.56	0.00	0.00	0.00	0.00	0.00
72	0.00	14.29	0.00	0.00	0.00	0.00	0.00
73	0.00	13.01	0.00	0.00	0.00	0.00	0.00
74	0.00	11.73	0.00	0.00	0.00	0.00	0.00
75	0.00	10.45	0.00	0.00	0.00	0.00	0.00
76	0.00	9.17	0.00	0.00	0.00	0.00	0.00
77	0.00	7.89	0.00	0.00	0.00	0.00	0.00
78	0.00	6.61	0.00	0.00	0.00	0.00	0.00
79	0.00	5.33	0.00	0.00	0.00	0.00	0.00
80	0.00	4.58	0.00	0.00	0.00	0.00	0.00
81	0.00	3.94	0.00	0.00	0.00	0.00	0.00
82	0.00	3.30	0.00	0.00	0.00	0.00	0.00
83	0.00	2.67	0.00	0.00	0.00	0.00	0.00
84	0.00	2.03	0.00	0.00	0.00	0.00	0.00
85	0.00	1.39	0.00	0.00	0.00	0.00	0.00
86	0.00	0.75	0.00	0.00	0.00	0.00	0.00
87	0.00	0.11	0.00	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:52: 9 ****

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

HL-93 TRUCK STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:52:21
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 2 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

HL-93 Truck.ANL

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * HL-93 TRUCK
51. TYPE 1 LOAD 8 32 32
52. DIST 14 14
53. *
54. * HL-93 TRUCK
55. LOAD GENERATION 135
56. TYPE 1 -28 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 5 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 5 WHEEL 2 OF 3
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
    STAAD PLANE

```

-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 135, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

```

HL-93 Truck.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * HL-93 TRUCK
 64. 1 TO 135 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.82	0.00	0.00	0.00	0.00
	3	0.00	1.64	0.00	0.00	0.00	0.00
	4	0.00	2.46	0.00	0.00	0.00	0.00
	5	0.00	3.28	0.00	0.00	0.00	0.00
	6	0.00	4.09	0.00	0.00	0.00	0.00
	7	0.00	4.91	0.00	0.00	0.00	0.00
	8	0.00	5.73	0.00	0.00	0.00	0.00
	9	0.00	6.55	0.00	0.00	0.00	0.00
	10	0.00	7.37	0.00	0.00	0.00	0.00
	11	0.00	8.19	0.00	0.00	0.00	0.00
	12	0.00	9.01	0.00	0.00	0.00	0.00
	13	0.00	9.83	0.00	0.00	0.00	0.00
	14	0.00	10.64	0.00	0.00	0.00	0.00
	15	0.00	11.46	0.00	0.00	0.00	0.00
	16	0.00	12.28	0.00	0.00	0.00	0.00
	17	0.00	13.10	0.00	0.00	0.00	0.00
	18	0.00	13.92	0.00	0.00	0.00	0.00
	19	0.00	14.74	0.00	0.00	0.00	0.00
	20	0.00	15.56	0.00	0.00	0.00	0.00
	21	0.00	16.38	0.00	0.00	0.00	0.00
	22	0.00	17.19	0.00	0.00	0.00	0.00
	23	0.00	18.01	0.00	0.00	0.00	0.00
	24	0.00	18.83	0.00	0.00	0.00	0.00
	25	0.00	19.65	0.00	0.00	0.00	0.00
	26	0.00	20.47	0.00	0.00	0.00	0.00
	27	0.00	21.29	0.00	0.00	0.00	0.00
	28	0.00	22.11	0.00	0.00	0.00	0.00
	29	0.00	22.93	0.00	0.00	0.00	0.00
	30	0.00	24.56	0.00	0.00	0.00	0.00
	31	0.00	26.20	0.00	0.00	0.00	0.00
	32	0.00	27.84	0.00	0.00	0.00	0.00
	33	0.00	29.48	0.00	0.00	0.00	0.00
	34	0.00	31.11	0.00	0.00	0.00	0.00
	35	0.00	32.75	0.00	0.00	0.00	0.00

Page 3

			HL-93 Truck.ANL			
36	0.00	34.39	0.00	0.00	0.00	0.00
37	0.00	36.03	0.00	0.00	0.00	0.00
38	0.00	37.66	0.00	0.00	0.00	0.00
39	0.00	39.30	0.00	0.00	0.00	0.00
40	0.00	40.94	0.00	0.00	0.00	0.00
41	0.00	41.07	0.00	0.00	0.00	0.00
42	0.00	41.07	0.00	0.00	0.00	0.00
43	0.00	41.07	0.00	0.00	0.00	0.00
44	0.00	41.07	0.00	0.00	0.00	0.00
45	0.00	41.07	0.00	0.00	0.00	0.00
46	0.00	41.07	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	41.07	0.00	0.00	0.00	0.00	0.00
48	0.00	41.07	0.00	0.00	0.00	0.00	0.00
49	0.00	41.07	0.00	0.00	0.00	0.00	0.00
50	0.00	41.07	0.00	0.00	0.00	0.00	0.00
51	0.00	41.07	0.00	0.00	0.00	0.00	0.00
52	0.00	41.07	0.00	0.00	0.00	0.00	0.00
53	0.00	41.07	0.00	0.00	0.00	0.00	0.00
54	0.00	41.07	0.00	0.00	0.00	0.00	0.00
55	0.00	41.07	0.00	0.00	0.00	0.00	0.00
56	0.00	41.07	0.00	0.00	0.00	0.00	0.00
57	0.00	41.08	0.00	0.00	0.00	0.00	0.00
58	0.00	41.28	0.00	0.00	0.00	0.00	0.00
59	0.00	41.48	0.00	0.00	0.00	0.00	0.00
60	0.00	41.69	0.00	0.00	0.00	0.00	0.00
61	0.00	41.89	0.00	0.00	0.00	0.00	0.00
62	0.00	42.10	0.00	0.00	0.00	0.00	0.00
63	0.00	42.30	0.00	0.00	0.00	0.00	0.00
64	0.00	42.51	0.00	0.00	0.00	0.00	0.00
65	0.00	42.71	0.00	0.00	0.00	0.00	0.00
66	0.00	42.92	0.00	0.00	0.00	0.00	0.00
67	0.00	43.12	0.00	0.00	0.00	0.00	0.00
68	0.00	43.33	0.00	0.00	0.00	0.00	0.00
69	0.00	42.03	0.00	0.00	0.00	0.00	0.00
70	0.00	40.60	0.00	0.00	0.00	0.00	0.00
71	0.00	39.16	0.00	0.00	0.00	0.00	0.00
72	0.00	37.73	0.00	0.00	0.00	0.00	0.00
73	0.00	36.30	0.00	0.00	0.00	0.00	0.00
74	0.00	34.87	0.00	0.00	0.00	0.00	0.00
75	0.00	33.43	0.00	0.00	0.00	0.00	0.00
76	0.00	32.00	0.00	0.00	0.00	0.00	0.00
77	0.00	30.57	0.00	0.00	0.00	0.00	0.00
78	0.00	29.13	0.00	0.00	0.00	0.00	0.00
79	0.00	27.70	0.00	0.00	0.00	0.00	0.00
80	0.00	26.95	0.00	0.00	0.00	0.00	0.00
81	0.00	26.34	0.00	0.00	0.00	0.00	0.00
82	0.00	25.72	0.00	0.00	0.00	0.00	0.00
83	0.00	25.11	0.00	0.00	0.00	0.00	0.00
84	0.00	24.49	0.00	0.00	0.00	0.00	0.00
85	0.00	23.88	0.00	0.00	0.00	0.00	0.00
86	0.00	23.27	0.00	0.00	0.00	0.00	0.00
87	0.00	22.65	0.00	0.00	0.00	0.00	0.00

			HL-93 Truck.ANL				
88	0.00	22.04	0.00	0.00	0.00	0.00	0.00
89	0.00	21.42	0.00	0.00	0.00	0.00	0.00
90	0.00	20.81	0.00	0.00	0.00	0.00	0.00
91	0.00	20.20	0.00	0.00	0.00	0.00	0.00
92	0.00	19.58	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z

93	0.00	18.97	0.00	0.00	0.00	0.00	0.00
94	0.00	18.35	0.00	0.00	0.00	0.00	0.00
95	0.00	17.74	0.00	0.00	0.00	0.00	0.00
96	0.00	17.13	0.00	0.00	0.00	0.00	0.00
97	0.00	16.14	0.00	0.00	0.00	0.00	0.00
98	0.00	15.11	0.00	0.00	0.00	0.00	0.00
99	0.00	14.09	0.00	0.00	0.00	0.00	0.00
100	0.00	13.07	0.00	0.00	0.00	0.00	0.00
101	0.00	12.04	0.00	0.00	0.00	0.00	0.00
102	0.00	11.02	0.00	0.00	0.00	0.00	0.00
103	0.00	10.00	0.00	0.00	0.00	0.00	0.00
104	0.00	8.97	0.00	0.00	0.00	0.00	0.00
105	0.00	7.95	0.00	0.00	0.00	0.00	0.00
106	0.00	6.93	0.00	0.00	0.00	0.00	0.00
107	0.00	5.90	0.00	0.00	0.00	0.00	0.00
108	0.00	5.56	0.00	0.00	0.00	0.00	0.00
109	0.00	5.36	0.00	0.00	0.00	0.00	0.00
110	0.00	5.15	0.00	0.00	0.00	0.00	0.00
111	0.00	4.95	0.00	0.00	0.00	0.00	0.00
112	0.00	4.74	0.00	0.00	0.00	0.00	0.00
113	0.00	4.54	0.00	0.00	0.00	0.00	0.00
114	0.00	4.33	0.00	0.00	0.00	0.00	0.00
115	0.00	4.13	0.00	0.00	0.00	0.00	0.00
116	0.00	3.92	0.00	0.00	0.00	0.00	0.00
117	0.00	3.72	0.00	0.00	0.00	0.00	0.00
118	0.00	3.51	0.00	0.00	0.00	0.00	0.00
119	0.00	3.31	0.00	0.00	0.00	0.00	0.00
120	0.00	3.10	0.00	0.00	0.00	0.00	0.00
121	0.00	2.90	0.00	0.00	0.00	0.00	0.00
122	0.00	2.70	0.00	0.00	0.00	0.00	0.00
123	0.00	2.49	0.00	0.00	0.00	0.00	0.00
124	0.00	2.29	0.00	0.00	0.00	0.00	0.00
125	0.00	2.08	0.00	0.00	0.00	0.00	0.00
126	0.00	1.88	0.00	0.00	0.00	0.00	0.00
127	0.00	1.67	0.00	0.00	0.00	0.00	0.00
128	0.00	1.47	0.00	0.00	0.00	0.00	0.00
129	0.00	1.26	0.00	0.00	0.00	0.00	0.00
130	0.00	1.06	0.00	0.00	0.00	0.00	0.00
131	0.00	0.85	0.00	0.00	0.00	0.00	0.00
132	0.00	0.65	0.00	0.00	0.00	0.00	0.00
133	0.00	0.44	0.00	0.00	0.00	0.00	0.00
134	0.00	0.24	0.00	0.00	0.00	0.00	0.00
135	0.00	0.03	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 7

HL-93 Truck.ANL
***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

*** DATE= OCT 10,2017 TIME= 16:52:23 ***

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

HL-93 LANE STAAD OUTPUT

```
*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:51:53
*
*          USER ID: HNTB Corporation
*****
```

```
1. STAAD PLANE
INPUT FILE: U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY -----
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES -----
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN
```

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. LOAD 1 LOADTYPE LANE TITLE LANE
50. MEMBER LOAD
51. 1 TO 2 UNI GY -0.64
52. *
53. *LOAD COMBINATION (FOR ENVELOPE)
54. LOAD COMBINATION 101
55. 1 1.0
56. *
57. ** ----- ANALYSIS -----
58. *
59. PERFORM ANALYSIS

```

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 1, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 1 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQD/AVAIL. DISK SPACE = 12.0/-808221.6 MB

```

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

```

60. DEFINE ENVELOPE
61. *
62. * HL-93 LANE
63. 101 ENVELOPE 1

```

**WARNING: DEFAULT ENVELOP TYPE 'STRESS' FOR ENVELOP# 1 IS ASSUMED

♀ STAAD PLANE -- PAGE NO. 3

```

64. *
65. END DEFINE ENVELOPE
66. *
67. * REACTION AT FLOORBEAM
68. LOAD LIST ENV 1
69. PRINT SUPPORT REACTION LIST 2

```

└ SUPPORT REACTION LIST 2 ┘

♀ STAAD PLANE -- PAGE NO. 4

HL-93 Lane.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	101	0.00	12.51	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

70. *
71. *
72. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:51:54 ****

♀ STAAD PLANE -- PAGE NO. 5

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

CL-625-ONT TRUCK STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:51:13
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

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CL-625-ONT Truck.ANL

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42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * CL-625-ONT TRUCK
51. TYPE 1 LOAD 11.24 31.473 31.473 39.342 26.977
52. DIST 11.81 3.94 21.65 21.65
53. *
54. * CL-625-ONT TRUCK
55. LOAD GENERATION 195
56. TYPE 1 -59.05 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 5
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED

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♀

STAAD PLANE

-- PAGE NO. 3

7

PROBLEM STATISTICS

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

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ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 195, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

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CL-625-ONT Truck.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

```

61. DEFINE ENVELOPE
62. *
63. * CL-625-ONT TRUCK
64. 1 TO 195 ENVELOPE 1 TYPE STRENGTH
65. *
66. END DEFINE ENVELOPE
67. *
68. * REACTION AT FLOORBEAM
69. LOAD LIST ENV 1
70. PRINT SUPPORT REACTION LIST 2
┌ SUPPORT REACTION LIST 2 ┐
└ STAAD PLANE ┘

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-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.69	0.00	0.00	0.00	0.00
	3	0.00	1.38	0.00	0.00	0.00	0.00
	4	0.00	2.07	0.00	0.00	0.00	0.00
	5	0.00	2.76	0.00	0.00	0.00	0.00
	6	0.00	3.45	0.00	0.00	0.00	0.00
	7	0.00	4.14	0.00	0.00	0.00	0.00
	8	0.00	4.83	0.00	0.00	0.00	0.00
	9	0.00	5.52	0.00	0.00	0.00	0.00
	10	0.00	6.21	0.00	0.00	0.00	0.00
	11	0.00	6.90	0.00	0.00	0.00	0.00
	12	0.00	7.59	0.00	0.00	0.00	0.00
	13	0.00	8.28	0.00	0.00	0.00	0.00
	14	0.00	8.97	0.00	0.00	0.00	0.00
	15	0.00	9.66	0.00	0.00	0.00	0.00
	16	0.00	10.35	0.00	0.00	0.00	0.00
	17	0.00	11.04	0.00	0.00	0.00	0.00
	18	0.00	11.73	0.00	0.00	0.00	0.00
	19	0.00	12.42	0.00	0.00	0.00	0.00
	20	0.00	13.11	0.00	0.00	0.00	0.00
	21	0.00	13.80	0.00	0.00	0.00	0.00
	22	0.00	14.50	0.00	0.00	0.00	0.00
	23	0.00	15.19	0.00	0.00	0.00	0.00
	24	0.00	15.88	0.00	0.00	0.00	0.00
	25	0.00	16.57	0.00	0.00	0.00	0.00
	26	0.00	17.26	0.00	0.00	0.00	0.00
	27	0.00	17.95	0.00	0.00	0.00	0.00
	28	0.00	18.64	0.00	0.00	0.00	0.00
	29	0.00	19.33	0.00	0.00	0.00	0.00
	30	0.00	20.02	0.00	0.00	0.00	0.00
	31	0.00	20.71	0.00	0.00	0.00	0.00
	32	0.00	21.40	0.00	0.00	0.00	0.00
	33	0.00	22.09	0.00	0.00	0.00	0.00
	34	0.00	22.78	0.00	0.00	0.00	0.00
	35	0.00	23.47	0.00	0.00	0.00	0.00

Page 3

CL-625-ONT Truck.ANL

36	0.00	24.16	0.00	0.00	0.00	0.00
37	0.00	24.85	0.00	0.00	0.00	0.00
38	0.00	25.54	0.00	0.00	0.00	0.00
39	0.00	26.23	0.00	0.00	0.00	0.00
40	0.00	26.92	0.00	0.00	0.00	0.00
41	0.00	26.34	0.00	0.00	0.00	0.00
42	0.00	25.65	0.00	0.00	0.00	0.00
43	0.00	24.96	0.00	0.00	0.00	0.00
44	0.00	24.27	0.00	0.00	0.00	0.00
45	0.00	24.29	0.00	0.00	0.00	0.00
46	0.00	24.60	0.00	0.00	0.00	0.00

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STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	24.92	0.00	0.00	0.00	0.00	0.00
48	0.00	25.24	0.00	0.00	0.00	0.00	0.00
49	0.00	25.55	0.00	0.00	0.00	0.00	0.00
50	0.00	25.87	0.00	0.00	0.00	0.00	0.00
51	0.00	26.19	0.00	0.00	0.00	0.00	0.00
52	0.00	26.50	0.00	0.00	0.00	0.00	0.00
53	0.00	26.82	0.00	0.00	0.00	0.00	0.00
54	0.00	27.14	0.00	0.00	0.00	0.00	0.00
55	0.00	27.45	0.00	0.00	0.00	0.00	0.00
56	0.00	27.77	0.00	0.00	0.00	0.00	0.00
57	0.00	28.08	0.00	0.00	0.00	0.00	0.00
58	0.00	28.40	0.00	0.00	0.00	0.00	0.00
59	0.00	28.72	0.00	0.00	0.00	0.00	0.00
60	0.00	29.03	0.00	0.00	0.00	0.00	0.00
61	0.00	29.35	0.00	0.00	0.00	0.00	0.00
62	0.00	29.67	0.00	0.00	0.00	0.00	0.00
63	0.00	29.98	0.00	0.00	0.00	0.00	0.00
64	0.00	30.30	0.00	0.00	0.00	0.00	0.00
65	0.00	30.62	0.00	0.00	0.00	0.00	0.00
66	0.00	30.93	0.00	0.00	0.00	0.00	0.00
67	0.00	31.25	0.00	0.00	0.00	0.00	0.00
68	0.00	31.56	0.00	0.00	0.00	0.00	0.00
69	0.00	31.88	0.00	0.00	0.00	0.00	0.00
70	0.00	32.20	0.00	0.00	0.00	0.00	0.00
71	0.00	32.51	0.00	0.00	0.00	0.00	0.00
72	0.00	32.83	0.00	0.00	0.00	0.00	0.00
73	0.00	33.15	0.00	0.00	0.00	0.00	0.00
74	0.00	33.46	0.00	0.00	0.00	0.00	0.00
75	0.00	33.78	0.00	0.00	0.00	0.00	0.00
76	0.00	34.10	0.00	0.00	0.00	0.00	0.00
77	0.00	34.41	0.00	0.00	0.00	0.00	0.00
78	0.00	34.73	0.00	0.00	0.00	0.00	0.00
79	0.00	35.04	0.00	0.00	0.00	0.00	0.00
80	0.00	35.94	0.00	0.00	0.00	0.00	0.00
81	0.00	36.94	0.00	0.00	0.00	0.00	0.00
82	0.00	37.95	0.00	0.00	0.00	0.00	0.00
83	0.00	38.96	0.00	0.00	0.00	0.00	0.00
84	0.00	38.72	0.00	0.00	0.00	0.00	0.00
85	0.00	37.71	0.00	0.00	0.00	0.00	0.00
86	0.00	36.71	0.00	0.00	0.00	0.00	0.00
87	0.00	35.70	0.00	0.00	0.00	0.00	0.00

Page 4

CL-625-ONT Truck.ANL

88	0.00	35.02	0.00	0.00	0.00	0.00
89	0.00	34.82	0.00	0.00	0.00	0.00
90	0.00	34.61	0.00	0.00	0.00	0.00
91	0.00	34.41	0.00	0.00	0.00	0.00
92	0.00	34.21	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	34.01	0.00	0.00	0.00	0.00	0.00
94	0.00	33.81	0.00	0.00	0.00	0.00	0.00
95	0.00	33.61	0.00	0.00	0.00	0.00	0.00
96	0.00	33.82	0.00	0.00	0.00	0.00	0.00
97	0.00	34.43	0.00	0.00	0.00	0.00	0.00
98	0.00	35.03	0.00	0.00	0.00	0.00	0.00
99	0.00	35.64	0.00	0.00	0.00	0.00	0.00
100	0.00	36.24	0.00	0.00	0.00	0.00	0.00
101	0.00	36.84	0.00	0.00	0.00	0.00	0.00
102	0.00	37.45	0.00	0.00	0.00	0.00	0.00
103	0.00	38.05	0.00	0.00	0.00	0.00	0.00
104	0.00	38.66	0.00	0.00	0.00	0.00	0.00
105	0.00	39.26	0.00	0.00	0.00	0.00	0.00
106	0.00	39.86	0.00	0.00	0.00	0.00	0.00
107	0.00	40.47	0.00	0.00	0.00	0.00	0.00
108	0.00	41.07	0.00	0.00	0.00	0.00	0.00
109	0.00	41.68	0.00	0.00	0.00	0.00	0.00
110	0.00	42.28	0.00	0.00	0.00	0.00	0.00
111	0.00	42.88	0.00	0.00	0.00	0.00	0.00
112	0.00	43.49	0.00	0.00	0.00	0.00	0.00
113	0.00	44.09	0.00	0.00	0.00	0.00	0.00
114	0.00	44.70	0.00	0.00	0.00	0.00	0.00
115	0.00	45.30	0.00	0.00	0.00	0.00	0.00
116	0.00	45.90	0.00	0.00	0.00	0.00	0.00
117	0.00	46.51	0.00	0.00	0.00	0.00	0.00
118	0.00	47.11	0.00	0.00	0.00	0.00	0.00
119	0.00	47.72	0.00	0.00	0.00	0.00	0.00
120	0.00	48.58	0.00	0.00	0.00	0.00	0.00
121	0.00	49.47	0.00	0.00	0.00	0.00	0.00
122	0.00	50.36	0.00	0.00	0.00	0.00	0.00
123	0.00	51.79	0.00	0.00	0.00	0.00	0.00
124	0.00	53.69	0.00	0.00	0.00	0.00	0.00
125	0.00	55.59	0.00	0.00	0.00	0.00	0.00
126	0.00	57.48	0.00	0.00	0.00	0.00	0.00
127	0.00	58.87	0.00	0.00	0.00	0.00	0.00
128	0.00	59.16	0.00	0.00	0.00	0.00	0.00
129	0.00	59.45	0.00	0.00	0.00	0.00	0.00
130	0.00	59.74	0.00	0.00	0.00	0.00	0.00
131	0.00	60.02	0.00	0.00	0.00	0.00	0.00
132	0.00	60.31	0.00	0.00	0.00	0.00	0.00
133	0.00	60.60	0.00	0.00	0.00	0.00	0.00
134	0.00	60.89	0.00	0.00	0.00	0.00	0.00
135	0.00	60.47	0.00	0.00	0.00	0.00	0.00
136	0.00	59.15	0.00	0.00	0.00	0.00	0.00
137	0.00	57.82	0.00	0.00	0.00	0.00	0.00
138	0.00	56.50	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 7

CL-625-ONT Truck.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
139		0.00	55.18	0.00	0.00	0.00	0.00
140		0.00	53.86	0.00	0.00	0.00	0.00
141		0.00	52.53	0.00	0.00	0.00	0.00
142		0.00	51.21	0.00	0.00	0.00	0.00
143		0.00	49.89	0.00	0.00	0.00	0.00
144		0.00	48.56	0.00	0.00	0.00	0.00
145		0.00	47.24	0.00	0.00	0.00	0.00
146		0.00	45.92	0.00	0.00	0.00	0.00
147		0.00	44.59	0.00	0.00	0.00	0.00
148		0.00	43.27	0.00	0.00	0.00	0.00
149		0.00	41.95	0.00	0.00	0.00	0.00
150		0.00	40.63	0.00	0.00	0.00	0.00
151		0.00	39.30	0.00	0.00	0.00	0.00
152		0.00	37.98	0.00	0.00	0.00	0.00
153		0.00	36.66	0.00	0.00	0.00	0.00
154		0.00	35.33	0.00	0.00	0.00	0.00
155		0.00	34.01	0.00	0.00	0.00	0.00
156		0.00	32.69	0.00	0.00	0.00	0.00
157		0.00	31.36	0.00	0.00	0.00	0.00
158		0.00	30.04	0.00	0.00	0.00	0.00
159		0.00	28.25	0.00	0.00	0.00	0.00
160		0.00	26.35	0.00	0.00	0.00	0.00
161		0.00	24.45	0.00	0.00	0.00	0.00
162		0.00	22.55	0.00	0.00	0.00	0.00
163		0.00	20.66	0.00	0.00	0.00	0.00
164		0.00	18.76	0.00	0.00	0.00	0.00
165		0.00	16.86	0.00	0.00	0.00	0.00
166		0.00	15.15	0.00	0.00	0.00	0.00
167		0.00	14.06	0.00	0.00	0.00	0.00
168		0.00	12.96	0.00	0.00	0.00	0.00
169		0.00	11.87	0.00	0.00	0.00	0.00
170		0.00	10.78	0.00	0.00	0.00	0.00
171		0.00	9.69	0.00	0.00	0.00	0.00
172		0.00	8.59	0.00	0.00	0.00	0.00
173		0.00	7.50	0.00	0.00	0.00	0.00
174		0.00	6.69	0.00	0.00	0.00	0.00
175		0.00	6.40	0.00	0.00	0.00	0.00
176		0.00	6.12	0.00	0.00	0.00	0.00
177		0.00	5.83	0.00	0.00	0.00	0.00
178		0.00	5.54	0.00	0.00	0.00	0.00
179		0.00	5.25	0.00	0.00	0.00	0.00
180		0.00	4.97	0.00	0.00	0.00	0.00
181		0.00	4.68	0.00	0.00	0.00	0.00
182		0.00	4.39	0.00	0.00	0.00	0.00
183		0.00	4.10	0.00	0.00	0.00	0.00
184		0.00	3.82	0.00	0.00	0.00	0.00

STAAD PLANE

-- PAGE NO.

8

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

CL-625-ONT Truck.ANL

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
	185	0.00	3.53	0.00	0.00	0.00	0.00
	186	0.00	3.24	0.00	0.00	0.00	0.00
	187	0.00	2.95	0.00	0.00	0.00	0.00
	188	0.00	2.66	0.00	0.00	0.00	0.00
	189	0.00	2.38	0.00	0.00	0.00	0.00
	190	0.00	2.09	0.00	0.00	0.00	0.00
	191	0.00	1.80	0.00	0.00	0.00	0.00
	192	0.00	1.51	0.00	0.00	0.00	0.00
	193	0.00	1.23	0.00	0.00	0.00	0.00
	194	0.00	0.94	0.00	0.00	0.00	0.00
	195	0.00	0.65	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:51:17 ****

♀ STAAD PLANE -- PAGE NO. 9

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

CL-625-ONT LANE LOAD - TRUCK STAAD OUTPUT

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*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:50:54
*
*          USER ID: HNTB Corporation
*****

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1. STAAD PLANE
INPUT FILE: U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY -----
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES -----
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

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CL-625-ONT Lane Load_truck.ANL

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42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * CL-625-ONT LANE LOAD - TRUCK
51. TYPE 1 LOAD 8.992 25.179 25.179 31.473 21.582
52. DIST 11.81 3.94 21.65 21.65
53. *
54. * CL-625-ONT LANE LOAD - TRUCK
55. LOAD GENERATION 195
56. TYPE 1 -59.05 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 5
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED

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♀

STAAD PLANE

-- PAGE NO. 3

7

PROBLEM STATISTICS

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

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ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 195, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

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CL-625-ONT Lane Load_truck.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * CL-625-ONT LANE LOAD - TRUCK
 64. 1 TO 195 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2

L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.55	0.00	0.00	0.00	0.00
	3	0.00	1.10	0.00	0.00	0.00	0.00
	4	0.00	1.66	0.00	0.00	0.00	0.00
	5	0.00	2.21	0.00	0.00	0.00	0.00
	6	0.00	2.76	0.00	0.00	0.00	0.00
	7	0.00	3.31	0.00	0.00	0.00	0.00
	8	0.00	3.87	0.00	0.00	0.00	0.00
	9	0.00	4.42	0.00	0.00	0.00	0.00
	10	0.00	4.97	0.00	0.00	0.00	0.00
	11	0.00	5.52	0.00	0.00	0.00	0.00
	12	0.00	6.07	0.00	0.00	0.00	0.00
	13	0.00	6.63	0.00	0.00	0.00	0.00
	14	0.00	7.18	0.00	0.00	0.00	0.00
	15	0.00	7.73	0.00	0.00	0.00	0.00
	16	0.00	8.28	0.00	0.00	0.00	0.00
	17	0.00	8.84	0.00	0.00	0.00	0.00
	18	0.00	9.39	0.00	0.00	0.00	0.00
	19	0.00	9.94	0.00	0.00	0.00	0.00
	20	0.00	10.49	0.00	0.00	0.00	0.00
	21	0.00	11.04	0.00	0.00	0.00	0.00
	22	0.00	11.60	0.00	0.00	0.00	0.00
	23	0.00	12.15	0.00	0.00	0.00	0.00
	24	0.00	12.70	0.00	0.00	0.00	0.00
	25	0.00	13.25	0.00	0.00	0.00	0.00
	26	0.00	13.81	0.00	0.00	0.00	0.00
	27	0.00	14.36	0.00	0.00	0.00	0.00
	28	0.00	14.91	0.00	0.00	0.00	0.00
	29	0.00	15.46	0.00	0.00	0.00	0.00
	30	0.00	16.01	0.00	0.00	0.00	0.00
	31	0.00	16.57	0.00	0.00	0.00	0.00
	32	0.00	17.12	0.00	0.00	0.00	0.00
	33	0.00	17.67	0.00	0.00	0.00	0.00
	34	0.00	18.22	0.00	0.00	0.00	0.00
	35	0.00	18.77	0.00	0.00	0.00	0.00

Page 3

			CL-625-ONT	Lane	Load_truck.ANL		
36	0.00	19.33	0.00	0.00	0.00	0.00	0.00
37	0.00	19.88	0.00	0.00	0.00	0.00	0.00
38	0.00	20.43	0.00	0.00	0.00	0.00	0.00
39	0.00	20.98	0.00	0.00	0.00	0.00	0.00
40	0.00	21.54	0.00	0.00	0.00	0.00	0.00
41	0.00	21.08	0.00	0.00	0.00	0.00	0.00
42	0.00	20.52	0.00	0.00	0.00	0.00	0.00
43	0.00	19.97	0.00	0.00	0.00	0.00	0.00
44	0.00	19.42	0.00	0.00	0.00	0.00	0.00
45	0.00	19.43	0.00	0.00	0.00	0.00	0.00
46	0.00	19.68	0.00	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	19.94	0.00	0.00	0.00	0.00	0.00
48	0.00	20.19	0.00	0.00	0.00	0.00	0.00
49	0.00	20.44	0.00	0.00	0.00	0.00	0.00
50	0.00	20.70	0.00	0.00	0.00	0.00	0.00
51	0.00	20.95	0.00	0.00	0.00	0.00	0.00
52	0.00	21.20	0.00	0.00	0.00	0.00	0.00
53	0.00	21.46	0.00	0.00	0.00	0.00	0.00
54	0.00	21.71	0.00	0.00	0.00	0.00	0.00
55	0.00	21.96	0.00	0.00	0.00	0.00	0.00
56	0.00	22.21	0.00	0.00	0.00	0.00	0.00
57	0.00	22.47	0.00	0.00	0.00	0.00	0.00
58	0.00	22.72	0.00	0.00	0.00	0.00	0.00
59	0.00	22.97	0.00	0.00	0.00	0.00	0.00
60	0.00	23.23	0.00	0.00	0.00	0.00	0.00
61	0.00	23.48	0.00	0.00	0.00	0.00	0.00
62	0.00	23.73	0.00	0.00	0.00	0.00	0.00
63	0.00	23.99	0.00	0.00	0.00	0.00	0.00
64	0.00	24.24	0.00	0.00	0.00	0.00	0.00
65	0.00	24.49	0.00	0.00	0.00	0.00	0.00
66	0.00	24.75	0.00	0.00	0.00	0.00	0.00
67	0.00	25.00	0.00	0.00	0.00	0.00	0.00
68	0.00	25.25	0.00	0.00	0.00	0.00	0.00
69	0.00	25.50	0.00	0.00	0.00	0.00	0.00
70	0.00	25.76	0.00	0.00	0.00	0.00	0.00
71	0.00	26.01	0.00	0.00	0.00	0.00	0.00
72	0.00	26.26	0.00	0.00	0.00	0.00	0.00
73	0.00	26.52	0.00	0.00	0.00	0.00	0.00
74	0.00	26.77	0.00	0.00	0.00	0.00	0.00
75	0.00	27.02	0.00	0.00	0.00	0.00	0.00
76	0.00	27.28	0.00	0.00	0.00	0.00	0.00
77	0.00	27.53	0.00	0.00	0.00	0.00	0.00
78	0.00	27.78	0.00	0.00	0.00	0.00	0.00
79	0.00	28.04	0.00	0.00	0.00	0.00	0.00
80	0.00	28.75	0.00	0.00	0.00	0.00	0.00
81	0.00	29.55	0.00	0.00	0.00	0.00	0.00
82	0.00	30.36	0.00	0.00	0.00	0.00	0.00
83	0.00	31.16	0.00	0.00	0.00	0.00	0.00
84	0.00	30.98	0.00	0.00	0.00	0.00	0.00
85	0.00	30.17	0.00	0.00	0.00	0.00	0.00
86	0.00	29.37	0.00	0.00	0.00	0.00	0.00
87	0.00	28.56	0.00	0.00	0.00	0.00	0.00

Page 4

			CL-625-ONT	Lane	Load_truck.ANL		
88	0.00	28.01	0.00	0.00	0.00	0.00	0.00
89	0.00	27.85	0.00	0.00	0.00	0.00	0.00
90	0.00	27.69	0.00	0.00	0.00	0.00	0.00
91	0.00	27.53	0.00	0.00	0.00	0.00	0.00
92	0.00	27.37	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	27.21	0.00	0.00	0.00	0.00	0.00
94	0.00	27.05	0.00	0.00	0.00	0.00	0.00
95	0.00	26.89	0.00	0.00	0.00	0.00	0.00
96	0.00	27.06	0.00	0.00	0.00	0.00	0.00
97	0.00	27.54	0.00	0.00	0.00	0.00	0.00
98	0.00	28.03	0.00	0.00	0.00	0.00	0.00
99	0.00	28.51	0.00	0.00	0.00	0.00	0.00
100	0.00	28.99	0.00	0.00	0.00	0.00	0.00
101	0.00	29.48	0.00	0.00	0.00	0.00	0.00
102	0.00	29.96	0.00	0.00	0.00	0.00	0.00
103	0.00	30.44	0.00	0.00	0.00	0.00	0.00
104	0.00	30.93	0.00	0.00	0.00	0.00	0.00
105	0.00	31.41	0.00	0.00	0.00	0.00	0.00
106	0.00	31.89	0.00	0.00	0.00	0.00	0.00
107	0.00	32.37	0.00	0.00	0.00	0.00	0.00
108	0.00	32.86	0.00	0.00	0.00	0.00	0.00
109	0.00	33.34	0.00	0.00	0.00	0.00	0.00
110	0.00	33.82	0.00	0.00	0.00	0.00	0.00
111	0.00	34.31	0.00	0.00	0.00	0.00	0.00
112	0.00	34.79	0.00	0.00	0.00	0.00	0.00
113	0.00	35.27	0.00	0.00	0.00	0.00	0.00
114	0.00	35.76	0.00	0.00	0.00	0.00	0.00
115	0.00	36.24	0.00	0.00	0.00	0.00	0.00
116	0.00	36.72	0.00	0.00	0.00	0.00	0.00
117	0.00	37.21	0.00	0.00	0.00	0.00	0.00
118	0.00	37.69	0.00	0.00	0.00	0.00	0.00
119	0.00	38.17	0.00	0.00	0.00	0.00	0.00
120	0.00	38.86	0.00	0.00	0.00	0.00	0.00
121	0.00	39.58	0.00	0.00	0.00	0.00	0.00
122	0.00	40.29	0.00	0.00	0.00	0.00	0.00
123	0.00	41.43	0.00	0.00	0.00	0.00	0.00
124	0.00	42.95	0.00	0.00	0.00	0.00	0.00
125	0.00	44.47	0.00	0.00	0.00	0.00	0.00
126	0.00	45.99	0.00	0.00	0.00	0.00	0.00
127	0.00	47.10	0.00	0.00	0.00	0.00	0.00
128	0.00	47.33	0.00	0.00	0.00	0.00	0.00
129	0.00	47.56	0.00	0.00	0.00	0.00	0.00
130	0.00	47.79	0.00	0.00	0.00	0.00	0.00
131	0.00	48.02	0.00	0.00	0.00	0.00	0.00
132	0.00	48.25	0.00	0.00	0.00	0.00	0.00
133	0.00	48.48	0.00	0.00	0.00	0.00	0.00
134	0.00	48.71	0.00	0.00	0.00	0.00	0.00
135	0.00	48.38	0.00	0.00	0.00	0.00	0.00
136	0.00	47.32	0.00	0.00	0.00	0.00	0.00
137	0.00	46.26	0.00	0.00	0.00	0.00	0.00
138	0.00	45.20	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 7

CL-625-ONT Lane Load_truck.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
139	0.00	44.14	0.00	0.00	0.00	0.00	0.00
140	0.00	43.08	0.00	0.00	0.00	0.00	0.00
141	0.00	42.03	0.00	0.00	0.00	0.00	0.00
142	0.00	40.97	0.00	0.00	0.00	0.00	0.00
143	0.00	39.91	0.00	0.00	0.00	0.00	0.00
144	0.00	38.85	0.00	0.00	0.00	0.00	0.00
145	0.00	37.79	0.00	0.00	0.00	0.00	0.00
146	0.00	36.73	0.00	0.00	0.00	0.00	0.00
147	0.00	35.68	0.00	0.00	0.00	0.00	0.00
148	0.00	34.62	0.00	0.00	0.00	0.00	0.00
149	0.00	33.56	0.00	0.00	0.00	0.00	0.00
150	0.00	32.50	0.00	0.00	0.00	0.00	0.00
151	0.00	31.44	0.00	0.00	0.00	0.00	0.00
152	0.00	30.38	0.00	0.00	0.00	0.00	0.00
153	0.00	29.33	0.00	0.00	0.00	0.00	0.00
154	0.00	28.27	0.00	0.00	0.00	0.00	0.00
155	0.00	27.21	0.00	0.00	0.00	0.00	0.00
156	0.00	26.15	0.00	0.00	0.00	0.00	0.00
157	0.00	25.09	0.00	0.00	0.00	0.00	0.00
158	0.00	24.03	0.00	0.00	0.00	0.00	0.00
159	0.00	22.60	0.00	0.00	0.00	0.00	0.00
160	0.00	21.08	0.00	0.00	0.00	0.00	0.00
161	0.00	19.56	0.00	0.00	0.00	0.00	0.00
162	0.00	18.04	0.00	0.00	0.00	0.00	0.00
163	0.00	16.53	0.00	0.00	0.00	0.00	0.00
164	0.00	15.01	0.00	0.00	0.00	0.00	0.00
165	0.00	13.49	0.00	0.00	0.00	0.00	0.00
166	0.00	12.12	0.00	0.00	0.00	0.00	0.00
167	0.00	11.25	0.00	0.00	0.00	0.00	0.00
168	0.00	10.37	0.00	0.00	0.00	0.00	0.00
169	0.00	9.50	0.00	0.00	0.00	0.00	0.00
170	0.00	8.62	0.00	0.00	0.00	0.00	0.00
171	0.00	7.75	0.00	0.00	0.00	0.00	0.00
172	0.00	6.87	0.00	0.00	0.00	0.00	0.00
173	0.00	6.00	0.00	0.00	0.00	0.00	0.00
174	0.00	5.35	0.00	0.00	0.00	0.00	0.00
175	0.00	5.12	0.00	0.00	0.00	0.00	0.00
176	0.00	4.89	0.00	0.00	0.00	0.00	0.00
177	0.00	4.66	0.00	0.00	0.00	0.00	0.00
178	0.00	4.43	0.00	0.00	0.00	0.00	0.00
179	0.00	4.20	0.00	0.00	0.00	0.00	0.00
180	0.00	3.97	0.00	0.00	0.00	0.00	0.00
181	0.00	3.74	0.00	0.00	0.00	0.00	0.00
182	0.00	3.51	0.00	0.00	0.00	0.00	0.00
183	0.00	3.28	0.00	0.00	0.00	0.00	0.00
184	0.00	3.05	0.00	0.00	0.00	0.00	0.00

STAAD PLANE

-- PAGE NO.

8

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

CL-625-ONT Lane Load_truck.ANL

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
	185	0.00	2.82	0.00	0.00	0.00	0.00
	186	0.00	2.59	0.00	0.00	0.00	0.00
	187	0.00	2.36	0.00	0.00	0.00	0.00
	188	0.00	2.13	0.00	0.00	0.00	0.00
	189	0.00	1.90	0.00	0.00	0.00	0.00
	190	0.00	1.67	0.00	0.00	0.00	0.00
	191	0.00	1.44	0.00	0.00	0.00	0.00
	192	0.00	1.21	0.00	0.00	0.00	0.00
	193	0.00	0.98	0.00	0.00	0.00	0.00
	194	0.00	0.75	0.00	0.00	0.00	0.00
	195	0.00	0.52	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:50:57 ****

♀ STAAD PLANE -- PAGE NO. 9

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

CL-625-ONT LANE LOAD - LANE STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:49:52
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG      DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY -----
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES -----
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. LOAD 1 LOADTYPE NONE TITLE LANE
50. MEMBER LOAD
51. 1 2 UNI GY -0.617
52. *
53. *LOAD COMBINATION (FOR ENVELOPE)
54. LOAD COMBINATION 101
55. 1 1.0
56. *
57. ** ----- ANALYSIS -----
58. *
59. PERFORM ANALYSIS

```

P R O B L E M S T A T I S T I C S -----

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

ORIGINAL/FINAL BAND-WIDTH=	1/	1/	2 DOF	
TOTAL PRIMARY LOAD CASES =	1,	TOTAL DEGREES OF FREEDOM =		3
TOTAL LOAD COMBINATION CASES =	1	SO FAR.		
SIZE OF STIFFNESS MATRIX =	0	DOUBLE KILO-WORDS		
REQD/AVAIL. DISK SPACE =	12.0/-808221.6	MB		

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

```

60. DEFINE ENVELOPE
61. *
62. * CL-625-ONT LANE LOAD - LANE
63. 101 ENVELOPE 1

```

**WARNING: DEFAULT ENVELOP TYPE 'STRESS' FOR ENVELOP# 1 IS ASSUMED

♀ STAAD PLANE -- PAGE NO. 3

```

64. *
65. END DEFINE ENVELOPE
66. *
67. * REACTION AT FLOORBEAM
68. LOAD LIST ENV 1
69. PRINT SUPPORT REACTION LIST 2

```

└ SUPPORT REACTION LIST 2 ┘

♀ STAAD PLANE -- PAGE NO. 4

CL-625-ONT Lane Load_lane.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	101	0.00	12.06	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

70. *
71. *
72. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:49:52 ****

♀

STAAD PLANE

-- PAGE NO. 5

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
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* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
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MAINEDOT LEGAL CONFIGURATION 1 STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:52:47
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

-- PAGE NO. 2

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINEDOT LEGAL LOAD CONFIGURATION 1
51. TYPE 1 LOAD 10 20 20 16.7 16.7 16.6
52. DIST 10 4 20 4 4
53. *
54. * MAINEDOT LEGAL LOAD CONFIGURATION 1
55. LOAD GENERATION 163
56. TYPE 1 -42 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 4 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 5 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 5 OF 6
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
STAAD PLANE

```

-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 163, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

```

MaineDOT Legal Load 1.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 1
 64. 1 TO 163 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.42	0.00	0.00	0.00	0.00
	3	0.00	0.85	0.00	0.00	0.00	0.00
	4	0.00	1.27	0.00	0.00	0.00	0.00
	5	0.00	1.70	0.00	0.00	0.00	0.00
	6	0.00	2.12	0.00	0.00	0.00	0.00
	7	0.00	2.55	0.00	0.00	0.00	0.00
	8	0.00	2.97	0.00	0.00	0.00	0.00
	9	0.00	3.40	0.00	0.00	0.00	0.00
	10	0.00	4.25	0.00	0.00	0.00	0.00
	11	0.00	5.10	0.00	0.00	0.00	0.00
	12	0.00	5.95	0.00	0.00	0.00	0.00
	13	0.00	6.81	0.00	0.00	0.00	0.00
	14	0.00	7.66	0.00	0.00	0.00	0.00
	15	0.00	8.51	0.00	0.00	0.00	0.00
	16	0.00	9.36	0.00	0.00	0.00	0.00
	17	0.00	10.22	0.00	0.00	0.00	0.00
	18	0.00	11.49	0.00	0.00	0.00	0.00
	19	0.00	12.77	0.00	0.00	0.00	0.00
	20	0.00	14.05	0.00	0.00	0.00	0.00
	21	0.00	15.33	0.00	0.00	0.00	0.00
	22	0.00	16.61	0.00	0.00	0.00	0.00
	23	0.00	17.89	0.00	0.00	0.00	0.00
	24	0.00	19.17	0.00	0.00	0.00	0.00
	25	0.00	20.45	0.00	0.00	0.00	0.00
	26	0.00	21.73	0.00	0.00	0.00	0.00
	27	0.00	23.01	0.00	0.00	0.00	0.00
	28	0.00	24.29	0.00	0.00	0.00	0.00
	29	0.00	25.57	0.00	0.00	0.00	0.00
	30	0.00	26.85	0.00	0.00	0.00	0.00
	31	0.00	28.12	0.00	0.00	0.00	0.00
	32	0.00	29.40	0.00	0.00	0.00	0.00
	33	0.00	30.68	0.00	0.00	0.00	0.00
	34	0.00	31.96	0.00	0.00	0.00	0.00
	35	0.00	33.24	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 1.ANL

36	0.00	34.52	0.00	0.00	0.00	0.00
37	0.00	35.80	0.00	0.00	0.00	0.00
38	0.00	37.08	0.00	0.00	0.00	0.00
39	0.00	38.36	0.00	0.00	0.00	0.00
40	0.00	39.64	0.00	0.00	0.00	0.00
41	0.00	40.14	0.00	0.00	0.00	0.00
42	0.00	40.57	0.00	0.00	0.00	0.00
43	0.00	41.00	0.00	0.00	0.00	0.00
44	0.00	41.43	0.00	0.00	0.00	0.00
45	0.00	41.86	0.00	0.00	0.00	0.00
46	0.00	42.29	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	42.72	0.00	0.00	0.00	0.00	0.00
48	0.00	43.15	0.00	0.00	0.00	0.00	0.00
49	0.00	42.79	0.00	0.00	0.00	0.00	0.00
50	0.00	42.37	0.00	0.00	0.00	0.00	0.00
51	0.00	41.95	0.00	0.00	0.00	0.00	0.00
52	0.00	41.52	0.00	0.00	0.00	0.00	0.00
53	0.00	41.10	0.00	0.00	0.00	0.00	0.00
54	0.00	40.67	0.00	0.00	0.00	0.00	0.00
55	0.00	40.25	0.00	0.00	0.00	0.00	0.00
56	0.00	39.82	0.00	0.00	0.00	0.00	0.00
57	0.00	38.62	0.00	0.00	0.00	0.00	0.00
58	0.00	37.85	0.00	0.00	0.00	0.00	0.00
59	0.00	37.08	0.00	0.00	0.00	0.00	0.00
60	0.00	36.31	0.00	0.00	0.00	0.00	0.00
61	0.00	35.54	0.00	0.00	0.00	0.00	0.00
62	0.00	34.78	0.00	0.00	0.00	0.00	0.00
63	0.00	34.01	0.00	0.00	0.00	0.00	0.00
64	0.00	33.24	0.00	0.00	0.00	0.00	0.00
65	0.00	32.47	0.00	0.00	0.00	0.00	0.00
66	0.00	32.22	0.00	0.00	0.00	0.00	0.00
67	0.00	31.96	0.00	0.00	0.00	0.00	0.00
68	0.00	31.70	0.00	0.00	0.00	0.00	0.00
69	0.00	31.45	0.00	0.00	0.00	0.00	0.00
70	0.00	31.19	0.00	0.00	0.00	0.00	0.00
71	0.00	30.94	0.00	0.00	0.00	0.00	0.00
72	0.00	30.68	0.00	0.00	0.00	0.00	0.00
73	0.00	30.43	0.00	0.00	0.00	0.00	0.00
74	0.00	30.17	0.00	0.00	0.00	0.00	0.00
75	0.00	29.91	0.00	0.00	0.00	0.00	0.00
76	0.00	29.66	0.00	0.00	0.00	0.00	0.00
77	0.00	29.40	0.00	0.00	0.00	0.00	0.00
78	0.00	29.15	0.00	0.00	0.00	0.00	0.00
79	0.00	28.89	0.00	0.00	0.00	0.00	0.00
80	0.00	28.99	0.00	0.00	0.00	0.00	0.00
81	0.00	29.16	0.00	0.00	0.00	0.00	0.00
82	0.00	29.33	0.00	0.00	0.00	0.00	0.00
83	0.00	29.50	0.00	0.00	0.00	0.00	0.00
84	0.00	29.66	0.00	0.00	0.00	0.00	0.00
85	0.00	29.83	0.00	0.00	0.00	0.00	0.00
86	0.00	30.26	0.00	0.00	0.00	0.00	0.00
87	0.00	30.68	0.00	0.00	0.00	0.00	0.00

Page 4

MaineDOT Legal Load 1.ANL

88	0.00	31.46	0.00	0.00	0.00	0.00
89	0.00	32.32	0.00	0.00	0.00	0.00
90	0.00	33.17	0.00	0.00	0.00	0.00
91	0.00	34.02	0.00	0.00	0.00	0.00
92	0.00	34.87	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	35.72	0.00	0.00	0.00	0.00	0.00
94	0.00	36.58	0.00	0.00	0.00	0.00	0.00
95	0.00	37.43	0.00	0.00	0.00	0.00	0.00
96	0.00	38.64	0.00	0.00	0.00	0.00	0.00
97	0.00	38.98	0.00	0.00	0.00	0.00	0.00
98	0.00	39.23	0.00	0.00	0.00	0.00	0.00
99	0.00	39.49	0.00	0.00	0.00	0.00	0.00
100	0.00	39.74	0.00	0.00	0.00	0.00	0.00
101	0.00	40.00	0.00	0.00	0.00	0.00	0.00
102	0.00	40.26	0.00	0.00	0.00	0.00	0.00
103	0.00	40.51	0.00	0.00	0.00	0.00	0.00
104	0.00	40.77	0.00	0.00	0.00	0.00	0.00
105	0.00	40.09	0.00	0.00	0.00	0.00	0.00
106	0.00	39.32	0.00	0.00	0.00	0.00	0.00
107	0.00	38.55	0.00	0.00	0.00	0.00	0.00
108	0.00	37.78	0.00	0.00	0.00	0.00	0.00
109	0.00	37.01	0.00	0.00	0.00	0.00	0.00
110	0.00	36.25	0.00	0.00	0.00	0.00	0.00
111	0.00	35.48	0.00	0.00	0.00	0.00	0.00
112	0.00	34.71	0.00	0.00	0.00	0.00	0.00
113	0.00	33.94	0.00	0.00	0.00	0.00	0.00
114	0.00	33.18	0.00	0.00	0.00	0.00	0.00
115	0.00	32.41	0.00	0.00	0.00	0.00	0.00
116	0.00	31.64	0.00	0.00	0.00	0.00	0.00
117	0.00	30.87	0.00	0.00	0.00	0.00	0.00
118	0.00	30.11	0.00	0.00	0.00	0.00	0.00
119	0.00	29.34	0.00	0.00	0.00	0.00	0.00
120	0.00	28.57	0.00	0.00	0.00	0.00	0.00
121	0.00	27.80	0.00	0.00	0.00	0.00	0.00
122	0.00	27.04	0.00	0.00	0.00	0.00	0.00
123	0.00	26.27	0.00	0.00	0.00	0.00	0.00
124	0.00	25.50	0.00	0.00	0.00	0.00	0.00
125	0.00	24.26	0.00	0.00	0.00	0.00	0.00
126	0.00	22.99	0.00	0.00	0.00	0.00	0.00
127	0.00	21.71	0.00	0.00	0.00	0.00	0.00
128	0.00	20.43	0.00	0.00	0.00	0.00	0.00
129	0.00	19.15	0.00	0.00	0.00	0.00	0.00
130	0.00	17.87	0.00	0.00	0.00	0.00	0.00
131	0.00	16.59	0.00	0.00	0.00	0.00	0.00
132	0.00	15.31	0.00	0.00	0.00	0.00	0.00
133	0.00	14.03	0.00	0.00	0.00	0.00	0.00
134	0.00	12.75	0.00	0.00	0.00	0.00	0.00
135	0.00	11.47	0.00	0.00	0.00	0.00	0.00
136	0.00	10.62	0.00	0.00	0.00	0.00	0.00
137	0.00	9.85	0.00	0.00	0.00	0.00	0.00
138	0.00	9.08	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 7

MaineDOT Legal Load 1.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
139		0.00	8.32	0.00	0.00	0.00	0.00
140		0.00	7.55	0.00	0.00	0.00	0.00
141		0.00	6.78	0.00	0.00	0.00	0.00
142		0.00	6.01	0.00	0.00	0.00	0.00
143		0.00	5.25	0.00	0.00	0.00	0.00
144		0.00	4.90	0.00	0.00	0.00	0.00
145		0.00	4.65	0.00	0.00	0.00	0.00
146		0.00	4.39	0.00	0.00	0.00	0.00
147		0.00	4.14	0.00	0.00	0.00	0.00
148		0.00	3.88	0.00	0.00	0.00	0.00
149		0.00	3.62	0.00	0.00	0.00	0.00
150		0.00	3.37	0.00	0.00	0.00	0.00
151		0.00	3.11	0.00	0.00	0.00	0.00
152		0.00	2.86	0.00	0.00	0.00	0.00
153		0.00	2.60	0.00	0.00	0.00	0.00
154		0.00	2.35	0.00	0.00	0.00	0.00
155		0.00	2.09	0.00	0.00	0.00	0.00
156		0.00	1.83	0.00	0.00	0.00	0.00
157		0.00	1.58	0.00	0.00	0.00	0.00
158		0.00	1.32	0.00	0.00	0.00	0.00
159		0.00	1.07	0.00	0.00	0.00	0.00
160		0.00	0.81	0.00	0.00	0.00	0.00
161		0.00	0.55	0.00	0.00	0.00	0.00
162		0.00	0.30	0.00	0.00	0.00	0.00
163		0.00	0.04	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH
STAAD PLANE

-- PAGE NO. 8

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:52:50 ****

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
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MAINEDOT LEGAL LOAD CONFIGURATION 2 STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version  20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:53: 7
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINEDOT LEGAL LOAD CONFIGURATION 2
51. TYPE 1 LOAD 10 16.6 16.7 16.7 17 17
52. DIST 10 4 4 10 20.3333
53. *
54. * MAINEDOT LEGAL LOAD CONFIGURATION 2
55. LOAD GENERATION 175
56. TYPE 1 -48.3333 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 4 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 5 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 5 OF 6
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
    STAAD PLANE

```

-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 175, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

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MaineDOT Legal Load 2.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 2
 64. 1 TO 175 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.43	0.00	0.00	0.00	0.00
	3	0.00	0.87	0.00	0.00	0.00	0.00
	4	0.00	1.30	0.00	0.00	0.00	0.00
	5	0.00	1.74	0.00	0.00	0.00	0.00
	6	0.00	2.17	0.00	0.00	0.00	0.00
	7	0.00	2.61	0.00	0.00	0.00	0.00
	8	0.00	3.04	0.00	0.00	0.00	0.00
	9	0.00	3.48	0.00	0.00	0.00	0.00
	10	0.00	3.91	0.00	0.00	0.00	0.00
	11	0.00	4.35	0.00	0.00	0.00	0.00
	12	0.00	4.78	0.00	0.00	0.00	0.00
	13	0.00	5.22	0.00	0.00	0.00	0.00
	14	0.00	5.65	0.00	0.00	0.00	0.00
	15	0.00	6.09	0.00	0.00	0.00	0.00
	16	0.00	6.52	0.00	0.00	0.00	0.00
	17	0.00	6.96	0.00	0.00	0.00	0.00
	18	0.00	7.39	0.00	0.00	0.00	0.00
	19	0.00	7.83	0.00	0.00	0.00	0.00
	20	0.00	8.26	0.00	0.00	0.00	0.00
	21	0.00	8.70	0.00	0.00	0.00	0.00
	22	0.00	9.13	0.00	0.00	0.00	0.00
	23	0.00	9.57	0.00	0.00	0.00	0.00
	24	0.00	10.00	0.00	0.00	0.00	0.00
	25	0.00	10.44	0.00	0.00	0.00	0.00
	26	0.00	10.87	0.00	0.00	0.00	0.00
	27	0.00	11.31	0.00	0.00	0.00	0.00
	28	0.00	11.74	0.00	0.00	0.00	0.00
	29	0.00	12.18	0.00	0.00	0.00	0.00
	30	0.00	12.61	0.00	0.00	0.00	0.00
	31	0.00	13.05	0.00	0.00	0.00	0.00
	32	0.00	13.48	0.00	0.00	0.00	0.00
	33	0.00	13.92	0.00	0.00	0.00	0.00
	34	0.00	14.35	0.00	0.00	0.00	0.00
	35	0.00	14.79	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 2.ANL

36	0.00	15.22	0.00	0.00	0.00	0.00
37	0.00	15.66	0.00	0.00	0.00	0.00
38	0.00	16.09	0.00	0.00	0.00	0.00
39	0.00	16.53	0.00	0.00	0.00	0.00
40	0.00	16.96	0.00	0.00	0.00	0.00
41	0.00	16.60	0.00	0.00	0.00	0.00
42	0.00	16.31	0.00	0.00	0.00	0.00
43	0.00	16.31	0.00	0.00	0.00	0.00
44	0.00	16.31	0.00	0.00	0.00	0.00
45	0.00	16.31	0.00	0.00	0.00	0.00
46	0.00	16.31	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	16.31	0.00	0.00	0.00	0.00	0.00
48	0.00	16.31	0.00	0.00	0.00	0.00	0.00
49	0.00	16.31	0.00	0.00	0.00	0.00	0.00
50	0.00	16.31	0.00	0.00	0.00	0.00	0.00
51	0.00	16.31	0.00	0.00	0.00	0.00	0.00
52	0.00	16.31	0.00	0.00	0.00	0.00	0.00
53	0.00	16.31	0.00	0.00	0.00	0.00	0.00
54	0.00	16.31	0.00	0.00	0.00	0.00	0.00
55	0.00	16.31	0.00	0.00	0.00	0.00	0.00
56	0.00	16.31	0.00	0.00	0.00	0.00	0.00
57	0.00	16.31	0.00	0.00	0.00	0.00	0.00
58	0.00	16.31	0.00	0.00	0.00	0.00	0.00
59	0.00	16.31	0.00	0.00	0.00	0.00	0.00
60	0.00	16.31	0.00	0.00	0.00	0.00	0.00
61	0.00	16.31	0.00	0.00	0.00	0.00	0.00
62	0.00	16.45	0.00	0.00	0.00	0.00	0.00
63	0.00	16.88	0.00	0.00	0.00	0.00	0.00
64	0.00	17.31	0.00	0.00	0.00	0.00	0.00
65	0.00	17.74	0.00	0.00	0.00	0.00	0.00
66	0.00	18.16	0.00	0.00	0.00	0.00	0.00
67	0.00	18.59	0.00	0.00	0.00	0.00	0.00
68	0.00	19.02	0.00	0.00	0.00	0.00	0.00
69	0.00	19.44	0.00	0.00	0.00	0.00	0.00
70	0.00	20.01	0.00	0.00	0.00	0.00	0.00
71	0.00	20.87	0.00	0.00	0.00	0.00	0.00
72	0.00	21.72	0.00	0.00	0.00	0.00	0.00
73	0.00	22.58	0.00	0.00	0.00	0.00	0.00
74	0.00	23.43	0.00	0.00	0.00	0.00	0.00
75	0.00	24.29	0.00	0.00	0.00	0.00	0.00
76	0.00	25.14	0.00	0.00	0.00	0.00	0.00
77	0.00	26.00	0.00	0.00	0.00	0.00	0.00
78	0.00	26.99	0.00	0.00	0.00	0.00	0.00
79	0.00	28.27	0.00	0.00	0.00	0.00	0.00
80	0.00	29.91	0.00	0.00	0.00	0.00	0.00
81	0.00	31.41	0.00	0.00	0.00	0.00	0.00
82	0.00	32.26	0.00	0.00	0.00	0.00	0.00
83	0.00	33.10	0.00	0.00	0.00	0.00	0.00
84	0.00	33.94	0.00	0.00	0.00	0.00	0.00
85	0.00	34.79	0.00	0.00	0.00	0.00	0.00
86	0.00	35.63	0.00	0.00	0.00	0.00	0.00
87	0.00	36.48	0.00	0.00	0.00	0.00	0.00

Page 4

MaineDOT Legal Load 2.ANL

88	0.00	37.32	0.00	0.00	0.00	0.00
89	0.00	38.17	0.00	0.00	0.00	0.00
90	0.00	39.01	0.00	0.00	0.00	0.00
91	0.00	39.85	0.00	0.00	0.00	0.00
92	0.00	40.70	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

6

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	41.54	0.00	0.00	0.00	0.00	0.00
94	0.00	42.39	0.00	0.00	0.00	0.00	0.00
95	0.00	43.23	0.00	0.00	0.00	0.00	0.00
96	0.00	44.08	0.00	0.00	0.00	0.00	0.00
97	0.00	44.92	0.00	0.00	0.00	0.00	0.00
98	0.00	45.85	0.00	0.00	0.00	0.00	0.00
99	0.00	46.95	0.00	0.00	0.00	0.00	0.00
100	0.00	48.05	0.00	0.00	0.00	0.00	0.00
101	0.00	48.94	0.00	0.00	0.00	0.00	0.00
102	0.00	49.18	0.00	0.00	0.00	0.00	0.00
103	0.00	49.43	0.00	0.00	0.00	0.00	0.00
104	0.00	49.67	0.00	0.00	0.00	0.00	0.00
105	0.00	49.92	0.00	0.00	0.00	0.00	0.00
106	0.00	50.17	0.00	0.00	0.00	0.00	0.00
107	0.00	50.41	0.00	0.00	0.00	0.00	0.00
108	0.00	50.66	0.00	0.00	0.00	0.00	0.00
109	0.00	50.69	0.00	0.00	0.00	0.00	0.00
110	0.00	50.08	0.00	0.00	0.00	0.00	0.00
111	0.00	49.47	0.00	0.00	0.00	0.00	0.00
112	0.00	48.86	0.00	0.00	0.00	0.00	0.00
113	0.00	48.25	0.00	0.00	0.00	0.00	0.00
114	0.00	47.64	0.00	0.00	0.00	0.00	0.00
115	0.00	47.03	0.00	0.00	0.00	0.00	0.00
116	0.00	46.43	0.00	0.00	0.00	0.00	0.00
117	0.00	45.60	0.00	0.00	0.00	0.00	0.00
118	0.00	44.15	0.00	0.00	0.00	0.00	0.00
119	0.00	42.69	0.00	0.00	0.00	0.00	0.00
120	0.00	41.30	0.00	0.00	0.00	0.00	0.00
121	0.00	40.28	0.00	0.00	0.00	0.00	0.00
122	0.00	39.25	0.00	0.00	0.00	0.00	0.00
123	0.00	38.23	0.00	0.00	0.00	0.00	0.00
124	0.00	37.21	0.00	0.00	0.00	0.00	0.00
125	0.00	36.18	0.00	0.00	0.00	0.00	0.00
126	0.00	35.16	0.00	0.00	0.00	0.00	0.00
127	0.00	34.14	0.00	0.00	0.00	0.00	0.00
128	0.00	33.11	0.00	0.00	0.00	0.00	0.00
129	0.00	32.09	0.00	0.00	0.00	0.00	0.00
130	0.00	31.07	0.00	0.00	0.00	0.00	0.00
131	0.00	30.04	0.00	0.00	0.00	0.00	0.00
132	0.00	29.02	0.00	0.00	0.00	0.00	0.00
133	0.00	28.00	0.00	0.00	0.00	0.00	0.00
134	0.00	26.97	0.00	0.00	0.00	0.00	0.00
135	0.00	25.95	0.00	0.00	0.00	0.00	0.00
136	0.00	24.93	0.00	0.00	0.00	0.00	0.00
137	0.00	23.77	0.00	0.00	0.00	0.00	0.00
138	0.00	22.24	0.00	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

7

MaineDOT Legal Load 2.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
139		0.00	20.70	0.00	0.00	0.00	0.00
140		0.00	19.24	0.00	0.00	0.00	0.00
141		0.00	18.13	0.00	0.00	0.00	0.00
142		0.00	17.02	0.00	0.00	0.00	0.00
143		0.00	15.92	0.00	0.00	0.00	0.00
144		0.00	14.81	0.00	0.00	0.00	0.00
145		0.00	13.70	0.00	0.00	0.00	0.00
146		0.00	12.59	0.00	0.00	0.00	0.00
147		0.00	11.49	0.00	0.00	0.00	0.00
148		0.00	10.45	0.00	0.00	0.00	0.00
149		0.00	9.77	0.00	0.00	0.00	0.00
150		0.00	9.09	0.00	0.00	0.00	0.00
151		0.00	8.41	0.00	0.00	0.00	0.00
152		0.00	7.73	0.00	0.00	0.00	0.00
153		0.00	7.05	0.00	0.00	0.00	0.00
154		0.00	6.36	0.00	0.00	0.00	0.00
155		0.00	5.68	0.00	0.00	0.00	0.00
156		0.00	5.07	0.00	0.00	0.00	0.00
157		0.00	4.82	0.00	0.00	0.00	0.00
158		0.00	4.56	0.00	0.00	0.00	0.00
159		0.00	4.31	0.00	0.00	0.00	0.00
160		0.00	4.05	0.00	0.00	0.00	0.00
161		0.00	3.80	0.00	0.00	0.00	0.00
162		0.00	3.54	0.00	0.00	0.00	0.00
163		0.00	3.28	0.00	0.00	0.00	0.00
164		0.00	3.03	0.00	0.00	0.00	0.00
165		0.00	2.77	0.00	0.00	0.00	0.00
166		0.00	2.52	0.00	0.00	0.00	0.00
167		0.00	2.26	0.00	0.00	0.00	0.00
168		0.00	2.00	0.00	0.00	0.00	0.00
169		0.00	1.75	0.00	0.00	0.00	0.00
170		0.00	1.49	0.00	0.00	0.00	0.00
171		0.00	1.24	0.00	0.00	0.00	0.00
172		0.00	0.98	0.00	0.00	0.00	0.00
173		0.00	0.72	0.00	0.00	0.00	0.00
174		0.00	0.47	0.00	0.00	0.00	0.00
175		0.00	0.21	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *

STAAD PLANE

-- PAGE NO. 8

72. *

73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:53:11 ****

MaineDOT Legal Load 2.ANL

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

MAINEDOT LEGAL LOAD CONFIGURATION 3 STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:53:27
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

-- PAGE NO. 2

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINEDOT LEGAL LOAD CONFIGURATION 3
51. TYPE 1 LOAD 10 16.6 16.7 16.7 14 14
52. DIST 10 4 4 12 4
53. *
54. * MAINEDOT LEGAL LOAD CONFIGURATION 3
55. LOAD GENERATION 147
56. TYPE 1 -34 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 6
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    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 5 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 6
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    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 6
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 5 OF 6
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED

```

♀

STAAD PLANE

-- PAGE NO. 3

7

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 147, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

```

MaineDOT Legal Load 3.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 3
 64. 1 TO 147 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.36	0.00	0.00	0.00	0.00
	3	0.00	0.72	0.00	0.00	0.00	0.00
	4	0.00	1.07	0.00	0.00	0.00	0.00
	5	0.00	1.43	0.00	0.00	0.00	0.00
	6	0.00	1.79	0.00	0.00	0.00	0.00
	7	0.00	2.15	0.00	0.00	0.00	0.00
	8	0.00	2.51	0.00	0.00	0.00	0.00
	9	0.00	2.87	0.00	0.00	0.00	0.00
	10	0.00	3.58	0.00	0.00	0.00	0.00
	11	0.00	4.30	0.00	0.00	0.00	0.00
	12	0.00	5.01	0.00	0.00	0.00	0.00
	13	0.00	5.73	0.00	0.00	0.00	0.00
	14	0.00	6.45	0.00	0.00	0.00	0.00
	15	0.00	7.16	0.00	0.00	0.00	0.00
	16	0.00	7.88	0.00	0.00	0.00	0.00
	17	0.00	8.60	0.00	0.00	0.00	0.00
	18	0.00	9.31	0.00	0.00	0.00	0.00
	19	0.00	10.03	0.00	0.00	0.00	0.00
	20	0.00	10.75	0.00	0.00	0.00	0.00
	21	0.00	11.46	0.00	0.00	0.00	0.00
	22	0.00	12.18	0.00	0.00	0.00	0.00
	23	0.00	12.90	0.00	0.00	0.00	0.00
	24	0.00	13.61	0.00	0.00	0.00	0.00
	25	0.00	14.33	0.00	0.00	0.00	0.00
	26	0.00	15.04	0.00	0.00	0.00	0.00
	27	0.00	15.76	0.00	0.00	0.00	0.00
	28	0.00	16.48	0.00	0.00	0.00	0.00
	29	0.00	17.19	0.00	0.00	0.00	0.00
	30	0.00	17.91	0.00	0.00	0.00	0.00
	31	0.00	18.63	0.00	0.00	0.00	0.00
	32	0.00	19.34	0.00	0.00	0.00	0.00
	33	0.00	20.06	0.00	0.00	0.00	0.00
	34	0.00	21.20	0.00	0.00	0.00	0.00
	35	0.00	22.35	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 3.ANL

36	0.00	23.49	0.00	0.00	0.00	0.00
37	0.00	24.63	0.00	0.00	0.00	0.00
38	0.00	25.78	0.00	0.00	0.00	0.00
39	0.00	26.92	0.00	0.00	0.00	0.00
40	0.00	28.07	0.00	0.00	0.00	0.00
41	0.00	28.55	0.00	0.00	0.00	0.00
42	0.00	29.41	0.00	0.00	0.00	0.00
43	0.00	30.26	0.00	0.00	0.00	0.00
44	0.00	31.12	0.00	0.00	0.00	0.00
45	0.00	31.97	0.00	0.00	0.00	0.00
46	0.00	32.83	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	33.68	0.00	0.00	0.00	0.00	0.00
48	0.00	34.53	0.00	0.00	0.00	0.00	0.00
49	0.00	34.73	0.00	0.00	0.00	0.00	0.00
50	0.00	35.30	0.00	0.00	0.00	0.00	0.00
51	0.00	35.86	0.00	0.00	0.00	0.00	0.00
52	0.00	36.42	0.00	0.00	0.00	0.00	0.00
53	0.00	36.98	0.00	0.00	0.00	0.00	0.00
54	0.00	37.55	0.00	0.00	0.00	0.00	0.00
55	0.00	38.11	0.00	0.00	0.00	0.00	0.00
56	0.00	38.67	0.00	0.00	0.00	0.00	0.00
57	0.00	39.24	0.00	0.00	0.00	0.00	0.00
58	0.00	39.80	0.00	0.00	0.00	0.00	0.00
59	0.00	40.36	0.00	0.00	0.00	0.00	0.00
60	0.00	40.92	0.00	0.00	0.00	0.00	0.00
61	0.00	41.49	0.00	0.00	0.00	0.00	0.00
62	0.00	42.05	0.00	0.00	0.00	0.00	0.00
63	0.00	42.61	0.00	0.00	0.00	0.00	0.00
64	0.00	43.18	0.00	0.00	0.00	0.00	0.00
65	0.00	43.74	0.00	0.00	0.00	0.00	0.00
66	0.00	44.30	0.00	0.00	0.00	0.00	0.00
67	0.00	44.86	0.00	0.00	0.00	0.00	0.00
68	0.00	45.43	0.00	0.00	0.00	0.00	0.00
69	0.00	45.99	0.00	0.00	0.00	0.00	0.00
70	0.00	46.81	0.00	0.00	0.00	0.00	0.00
71	0.00	47.63	0.00	0.00	0.00	0.00	0.00
72	0.00	48.45	0.00	0.00	0.00	0.00	0.00
73	0.00	48.48	0.00	0.00	0.00	0.00	0.00
74	0.00	48.45	0.00	0.00	0.00	0.00	0.00
75	0.00	48.41	0.00	0.00	0.00	0.00	0.00
76	0.00	48.37	0.00	0.00	0.00	0.00	0.00
77	0.00	48.34	0.00	0.00	0.00	0.00	0.00
78	0.00	48.30	0.00	0.00	0.00	0.00	0.00
79	0.00	48.27	0.00	0.00	0.00	0.00	0.00
80	0.00	48.53	0.00	0.00	0.00	0.00	0.00
81	0.00	48.07	0.00	0.00	0.00	0.00	0.00
82	0.00	47.54	0.00	0.00	0.00	0.00	0.00
83	0.00	47.00	0.00	0.00	0.00	0.00	0.00
84	0.00	46.47	0.00	0.00	0.00	0.00	0.00
85	0.00	45.94	0.00	0.00	0.00	0.00	0.00
86	0.00	45.41	0.00	0.00	0.00	0.00	0.00
87	0.00	44.88	0.00	0.00	0.00	0.00	0.00

Page 4

MaineDOT Legal Load 3.ANL

88	0.00	44.64	0.00	0.00	0.00	0.00
89	0.00	43.69	0.00	0.00	0.00	0.00
90	0.00	42.67	0.00	0.00	0.00	0.00
91	0.00	41.64	0.00	0.00	0.00	0.00
92	0.00	40.62	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	39.60	0.00	0.00	0.00	0.00	0.00
94	0.00	38.57	0.00	0.00	0.00	0.00	0.00
95	0.00	37.55	0.00	0.00	0.00	0.00	0.00
96	0.00	36.53	0.00	0.00	0.00	0.00	0.00
97	0.00	35.50	0.00	0.00	0.00	0.00	0.00
98	0.00	34.48	0.00	0.00	0.00	0.00	0.00
99	0.00	33.46	0.00	0.00	0.00	0.00	0.00
100	0.00	32.43	0.00	0.00	0.00	0.00	0.00
101	0.00	31.41	0.00	0.00	0.00	0.00	0.00
102	0.00	30.38	0.00	0.00	0.00	0.00	0.00
103	0.00	29.36	0.00	0.00	0.00	0.00	0.00
104	0.00	28.34	0.00	0.00	0.00	0.00	0.00
105	0.00	27.31	0.00	0.00	0.00	0.00	0.00
106	0.00	26.29	0.00	0.00	0.00	0.00	0.00
107	0.00	25.27	0.00	0.00	0.00	0.00	0.00
108	0.00	24.24	0.00	0.00	0.00	0.00	0.00
109	0.00	22.75	0.00	0.00	0.00	0.00	0.00
110	0.00	21.22	0.00	0.00	0.00	0.00	0.00
111	0.00	19.68	0.00	0.00	0.00	0.00	0.00
112	0.00	18.50	0.00	0.00	0.00	0.00	0.00
113	0.00	17.39	0.00	0.00	0.00	0.00	0.00
114	0.00	16.29	0.00	0.00	0.00	0.00	0.00
115	0.00	15.18	0.00	0.00	0.00	0.00	0.00
116	0.00	14.07	0.00	0.00	0.00	0.00	0.00
117	0.00	12.96	0.00	0.00	0.00	0.00	0.00
118	0.00	11.85	0.00	0.00	0.00	0.00	0.00
119	0.00	10.75	0.00	0.00	0.00	0.00	0.00
120	0.00	9.99	0.00	0.00	0.00	0.00	0.00
121	0.00	9.31	0.00	0.00	0.00	0.00	0.00
122	0.00	8.63	0.00	0.00	0.00	0.00	0.00
123	0.00	7.95	0.00	0.00	0.00	0.00	0.00
124	0.00	7.27	0.00	0.00	0.00	0.00	0.00
125	0.00	6.59	0.00	0.00	0.00	0.00	0.00
126	0.00	5.91	0.00	0.00	0.00	0.00	0.00
127	0.00	5.23	0.00	0.00	0.00	0.00	0.00
128	0.00	4.90	0.00	0.00	0.00	0.00	0.00
129	0.00	4.65	0.00	0.00	0.00	0.00	0.00
130	0.00	4.39	0.00	0.00	0.00	0.00	0.00
131	0.00	4.14	0.00	0.00	0.00	0.00	0.00
132	0.00	3.88	0.00	0.00	0.00	0.00	0.00
133	0.00	3.62	0.00	0.00	0.00	0.00	0.00
134	0.00	3.37	0.00	0.00	0.00	0.00	0.00
135	0.00	3.11	0.00	0.00	0.00	0.00	0.00
136	0.00	2.86	0.00	0.00	0.00	0.00	0.00
137	0.00	2.60	0.00	0.00	0.00	0.00	0.00
138	0.00	2.35	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 7

MaineDOT Legal Load 3.ANL

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
	139	0.00	2.09	0.00	0.00	0.00	0.00
	140	0.00	1.83	0.00	0.00	0.00	0.00
	141	0.00	1.58	0.00	0.00	0.00	0.00
	142	0.00	1.32	0.00	0.00	0.00	0.00
	143	0.00	1.07	0.00	0.00	0.00	0.00
	144	0.00	0.81	0.00	0.00	0.00	0.00
	145	0.00	0.55	0.00	0.00	0.00	0.00
	146	0.00	0.30	0.00	0.00	0.00	0.00
	147	0.00	0.04	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:53:29 ****

♀

STAAD PLANE

-- PAGE NO. 8

```
*****
*   For technical assistance on STAAD.Pro, please visit   *
*   http://selectservices.bentley.com/en-US/              *
*                                                         *
*   Details about additional assistance from              *
*   Bentley and Partners can be found at program menu    *
*   Help->Technical Support                               *
*                                                         *
*   Copyright (c) 1997-2015 Bentley Systems, Inc.        *
*   http://www.bentley.com                               *
*****
```

MAINEDOT LEGAL LOAD CONFIGURATION 4 STAAD OUTPUT


```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:54:48
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINE DOT LEGAL LOAD CONFIGURATION 4
51. TYPE 1 LOAD 10 16.1 24.2 18.9 18.8
52. DIST 10 10 10 4
53. *
54. * MAINE DOT LEGAL LOAD CONFIGURATION 4
55. LOAD GENERATION 147
56. TYPE 1 -34 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 5
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED

```

♀

STAAD PLANE

-- PAGE NO. 3

7

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 147, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

```

MaineDOT Legal Load 4.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 4
 64. 1 TO 147 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.48	0.00	0.00	0.00	0.00
	3	0.00	0.96	0.00	0.00	0.00	0.00
	4	0.00	1.44	0.00	0.00	0.00	0.00
	5	0.00	1.92	0.00	0.00	0.00	0.00
	6	0.00	2.41	0.00	0.00	0.00	0.00
	7	0.00	2.89	0.00	0.00	0.00	0.00
	8	0.00	3.37	0.00	0.00	0.00	0.00
	9	0.00	3.85	0.00	0.00	0.00	0.00
	10	0.00	4.81	0.00	0.00	0.00	0.00
	11	0.00	5.78	0.00	0.00	0.00	0.00
	12	0.00	6.74	0.00	0.00	0.00	0.00
	13	0.00	7.71	0.00	0.00	0.00	0.00
	14	0.00	8.67	0.00	0.00	0.00	0.00
	15	0.00	9.64	0.00	0.00	0.00	0.00
	16	0.00	10.60	0.00	0.00	0.00	0.00
	17	0.00	11.57	0.00	0.00	0.00	0.00
	18	0.00	12.53	0.00	0.00	0.00	0.00
	19	0.00	13.49	0.00	0.00	0.00	0.00
	20	0.00	14.46	0.00	0.00	0.00	0.00
	21	0.00	15.42	0.00	0.00	0.00	0.00
	22	0.00	16.39	0.00	0.00	0.00	0.00
	23	0.00	17.35	0.00	0.00	0.00	0.00
	24	0.00	18.32	0.00	0.00	0.00	0.00
	25	0.00	19.28	0.00	0.00	0.00	0.00
	26	0.00	20.25	0.00	0.00	0.00	0.00
	27	0.00	21.21	0.00	0.00	0.00	0.00
	28	0.00	22.18	0.00	0.00	0.00	0.00
	29	0.00	23.14	0.00	0.00	0.00	0.00
	30	0.00	24.72	0.00	0.00	0.00	0.00
	31	0.00	26.31	0.00	0.00	0.00	0.00
	32	0.00	27.89	0.00	0.00	0.00	0.00
	33	0.00	29.48	0.00	0.00	0.00	0.00
	34	0.00	31.06	0.00	0.00	0.00	0.00
	35	0.00	32.64	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 4.ANL

36	0.00	34.23	0.00	0.00	0.00	0.00
37	0.00	35.81	0.00	0.00	0.00	0.00
38	0.00	37.39	0.00	0.00	0.00	0.00
39	0.00	38.98	0.00	0.00	0.00	0.00
40	0.00	40.56	0.00	0.00	0.00	0.00
41	0.00	41.26	0.00	0.00	0.00	0.00
42	0.00	41.89	0.00	0.00	0.00	0.00
43	0.00	42.51	0.00	0.00	0.00	0.00
44	0.00	43.13	0.00	0.00	0.00	0.00
45	0.00	43.75	0.00	0.00	0.00	0.00
46	0.00	44.37	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	44.99	0.00	0.00	0.00	0.00	0.00
48	0.00	45.62	0.00	0.00	0.00	0.00	0.00
49	0.00	45.35	0.00	0.00	0.00	0.00	0.00
50	0.00	45.42	0.00	0.00	0.00	0.00	0.00
51	0.00	45.48	0.00	0.00	0.00	0.00	0.00
52	0.00	45.55	0.00	0.00	0.00	0.00	0.00
53	0.00	45.62	0.00	0.00	0.00	0.00	0.00
54	0.00	45.68	0.00	0.00	0.00	0.00	0.00
55	0.00	45.75	0.00	0.00	0.00	0.00	0.00
56	0.00	45.82	0.00	0.00	0.00	0.00	0.00
57	0.00	45.88	0.00	0.00	0.00	0.00	0.00
58	0.00	45.95	0.00	0.00	0.00	0.00	0.00
59	0.00	46.02	0.00	0.00	0.00	0.00	0.00
60	0.00	46.08	0.00	0.00	0.00	0.00	0.00
61	0.00	46.15	0.00	0.00	0.00	0.00	0.00
62	0.00	46.22	0.00	0.00	0.00	0.00	0.00
63	0.00	46.28	0.00	0.00	0.00	0.00	0.00
64	0.00	46.35	0.00	0.00	0.00	0.00	0.00
65	0.00	46.42	0.00	0.00	0.00	0.00	0.00
66	0.00	46.48	0.00	0.00	0.00	0.00	0.00
67	0.00	46.55	0.00	0.00	0.00	0.00	0.00
68	0.00	46.62	0.00	0.00	0.00	0.00	0.00
69	0.00	45.55	0.00	0.00	0.00	0.00	0.00
70	0.00	44.63	0.00	0.00	0.00	0.00	0.00
71	0.00	43.71	0.00	0.00	0.00	0.00	0.00
72	0.00	42.80	0.00	0.00	0.00	0.00	0.00
73	0.00	41.88	0.00	0.00	0.00	0.00	0.00
74	0.00	40.97	0.00	0.00	0.00	0.00	0.00
75	0.00	40.05	0.00	0.00	0.00	0.00	0.00
76	0.00	39.13	0.00	0.00	0.00	0.00	0.00
77	0.00	38.22	0.00	0.00	0.00	0.00	0.00
78	0.00	37.30	0.00	0.00	0.00	0.00	0.00
79	0.00	36.39	0.00	0.00	0.00	0.00	0.00
80	0.00	35.87	0.00	0.00	0.00	0.00	0.00
81	0.00	35.44	0.00	0.00	0.00	0.00	0.00
82	0.00	35.00	0.00	0.00	0.00	0.00	0.00
83	0.00	34.57	0.00	0.00	0.00	0.00	0.00
84	0.00	34.13	0.00	0.00	0.00	0.00	0.00
85	0.00	33.70	0.00	0.00	0.00	0.00	0.00
86	0.00	33.26	0.00	0.00	0.00	0.00	0.00
87	0.00	32.83	0.00	0.00	0.00	0.00	0.00

MaineDOT Legal Load 4.ANL

88	0.00	32.79	0.00	0.00	0.00	0.00
89	0.00	32.09	0.00	0.00	0.00	0.00
90	0.00	31.31	0.00	0.00	0.00	0.00
91	0.00	30.54	0.00	0.00	0.00	0.00
92	0.00	29.76	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	28.99	0.00	0.00	0.00	0.00	0.00
94	0.00	28.21	0.00	0.00	0.00	0.00	0.00
95	0.00	27.44	0.00	0.00	0.00	0.00	0.00
96	0.00	26.66	0.00	0.00	0.00	0.00	0.00
97	0.00	25.89	0.00	0.00	0.00	0.00	0.00
98	0.00	25.11	0.00	0.00	0.00	0.00	0.00
99	0.00	24.34	0.00	0.00	0.00	0.00	0.00
100	0.00	23.56	0.00	0.00	0.00	0.00	0.00
101	0.00	22.79	0.00	0.00	0.00	0.00	0.00
102	0.00	22.01	0.00	0.00	0.00	0.00	0.00
103	0.00	21.23	0.00	0.00	0.00	0.00	0.00
104	0.00	20.46	0.00	0.00	0.00	0.00	0.00
105	0.00	19.68	0.00	0.00	0.00	0.00	0.00
106	0.00	18.91	0.00	0.00	0.00	0.00	0.00
107	0.00	18.13	0.00	0.00	0.00	0.00	0.00
108	0.00	17.87	0.00	0.00	0.00	0.00	0.00
109	0.00	17.25	0.00	0.00	0.00	0.00	0.00
110	0.00	16.58	0.00	0.00	0.00	0.00	0.00
111	0.00	15.91	0.00	0.00	0.00	0.00	0.00
112	0.00	15.25	0.00	0.00	0.00	0.00	0.00
113	0.00	14.58	0.00	0.00	0.00	0.00	0.00
114	0.00	13.91	0.00	0.00	0.00	0.00	0.00
115	0.00	13.24	0.00	0.00	0.00	0.00	0.00
116	0.00	12.57	0.00	0.00	0.00	0.00	0.00
117	0.00	11.91	0.00	0.00	0.00	0.00	0.00
118	0.00	11.24	0.00	0.00	0.00	0.00	0.00
119	0.00	10.57	0.00	0.00	0.00	0.00	0.00
120	0.00	9.90	0.00	0.00	0.00	0.00	0.00
121	0.00	9.24	0.00	0.00	0.00	0.00	0.00
122	0.00	8.57	0.00	0.00	0.00	0.00	0.00
123	0.00	7.90	0.00	0.00	0.00	0.00	0.00
124	0.00	7.23	0.00	0.00	0.00	0.00	0.00
125	0.00	6.56	0.00	0.00	0.00	0.00	0.00
126	0.00	5.90	0.00	0.00	0.00	0.00	0.00
127	0.00	5.23	0.00	0.00	0.00	0.00	0.00
128	0.00	4.90	0.00	0.00	0.00	0.00	0.00
129	0.00	4.65	0.00	0.00	0.00	0.00	0.00
130	0.00	4.39	0.00	0.00	0.00	0.00	0.00
131	0.00	4.14	0.00	0.00	0.00	0.00	0.00
132	0.00	3.88	0.00	0.00	0.00	0.00	0.00
133	0.00	3.62	0.00	0.00	0.00	0.00	0.00
134	0.00	3.37	0.00	0.00	0.00	0.00	0.00
135	0.00	3.11	0.00	0.00	0.00	0.00	0.00
136	0.00	2.86	0.00	0.00	0.00	0.00	0.00
137	0.00	2.60	0.00	0.00	0.00	0.00	0.00
138	0.00	2.35	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 7

MaineDOT Legal Load 4.ANL

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
139		0.00	2.09	0.00	0.00	0.00	0.00
140		0.00	1.83	0.00	0.00	0.00	0.00
141		0.00	1.58	0.00	0.00	0.00	0.00
142		0.00	1.32	0.00	0.00	0.00	0.00
143		0.00	1.07	0.00	0.00	0.00	0.00
144		0.00	0.81	0.00	0.00	0.00	0.00
145		0.00	0.55	0.00	0.00	0.00	0.00
146		0.00	0.30	0.00	0.00	0.00	0.00
147		0.00	0.04	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:54:51 ****

STAAD PLANE -- PAGE NO. 8

* For technical assistance on STAAD.Pro, please visit *
* <http://selectservices.bentley.com/en-US/> *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
* *
* Copyright (c) 1997-2015 Bentley Systems, Inc. *
* <http://www.bentley.com> *

MAINEDOT LEGAL LOAD CONFIGURATION 5 STAAD OUTPUT

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*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version  20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:57:31
*
*          USER ID: HNTB Corporation
*****

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1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

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42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINEDOT LEGAL LOAD CONFIGURATION 5
51. TYPE 1 LOAD 10 22 22 17 17
52. DIST 10 4 16 4
53. *
54. * MAINEDOT LEGAL LOAD CONFIGURATION 5
55. LOAD GENERATION 147
56. TYPE 1 -34 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 4 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 5
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 5
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
STAAD PLANE

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-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 147, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.4 MB

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MaineDOT Legal Load 5.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 5
 64. 1 TO 147 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.43	0.00	0.00	0.00	0.00
	3	0.00	0.87	0.00	0.00	0.00	0.00
	4	0.00	1.30	0.00	0.00	0.00	0.00
	5	0.00	1.74	0.00	0.00	0.00	0.00
	6	0.00	2.17	0.00	0.00	0.00	0.00
	7	0.00	2.61	0.00	0.00	0.00	0.00
	8	0.00	3.04	0.00	0.00	0.00	0.00
	9	0.00	3.48	0.00	0.00	0.00	0.00
	10	0.00	4.35	0.00	0.00	0.00	0.00
	11	0.00	5.22	0.00	0.00	0.00	0.00
	12	0.00	6.09	0.00	0.00	0.00	0.00
	13	0.00	6.96	0.00	0.00	0.00	0.00
	14	0.00	7.83	0.00	0.00	0.00	0.00
	15	0.00	8.70	0.00	0.00	0.00	0.00
	16	0.00	9.57	0.00	0.00	0.00	0.00
	17	0.00	10.44	0.00	0.00	0.00	0.00
	18	0.00	11.31	0.00	0.00	0.00	0.00
	19	0.00	12.18	0.00	0.00	0.00	0.00
	20	0.00	13.05	0.00	0.00	0.00	0.00
	21	0.00	13.92	0.00	0.00	0.00	0.00
	22	0.00	14.79	0.00	0.00	0.00	0.00
	23	0.00	15.66	0.00	0.00	0.00	0.00
	24	0.00	16.53	0.00	0.00	0.00	0.00
	25	0.00	17.40	0.00	0.00	0.00	0.00
	26	0.00	18.27	0.00	0.00	0.00	0.00
	27	0.00	19.14	0.00	0.00	0.00	0.00
	28	0.00	20.01	0.00	0.00	0.00	0.00
	29	0.00	20.88	0.00	0.00	0.00	0.00
	30	0.00	21.75	0.00	0.00	0.00	0.00
	31	0.00	22.62	0.00	0.00	0.00	0.00
	32	0.00	23.49	0.00	0.00	0.00	0.00
	33	0.00	24.36	0.00	0.00	0.00	0.00
	34	0.00	25.23	0.00	0.00	0.00	0.00
	35	0.00	26.10	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 5.ANL

36	0.00	26.97	0.00	0.00	0.00	0.00
37	0.00	27.84	0.00	0.00	0.00	0.00
38	0.00	28.71	0.00	0.00	0.00	0.00
39	0.00	29.58	0.00	0.00	0.00	0.00
40	0.00	30.45	0.00	0.00	0.00	0.00
41	0.00	30.52	0.00	0.00	0.00	0.00
42	0.00	31.08	0.00	0.00	0.00	0.00
43	0.00	31.65	0.00	0.00	0.00	0.00
44	0.00	32.21	0.00	0.00	0.00	0.00
45	0.00	32.77	0.00	0.00	0.00	0.00
46	0.00	33.33	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	33.90	0.00	0.00	0.00	0.00	0.00
48	0.00	34.46	0.00	0.00	0.00	0.00	0.00
49	0.00	34.23	0.00	0.00	0.00	0.00	0.00
50	0.00	34.48	0.00	0.00	0.00	0.00	0.00
51	0.00	34.74	0.00	0.00	0.00	0.00	0.00
52	0.00	34.99	0.00	0.00	0.00	0.00	0.00
53	0.00	35.25	0.00	0.00	0.00	0.00	0.00
54	0.00	35.51	0.00	0.00	0.00	0.00	0.00
55	0.00	35.76	0.00	0.00	0.00	0.00	0.00
56	0.00	36.02	0.00	0.00	0.00	0.00	0.00
57	0.00	36.27	0.00	0.00	0.00	0.00	0.00
58	0.00	36.53	0.00	0.00	0.00	0.00	0.00
59	0.00	36.78	0.00	0.00	0.00	0.00	0.00
60	0.00	37.04	0.00	0.00	0.00	0.00	0.00
61	0.00	37.30	0.00	0.00	0.00	0.00	0.00
62	0.00	37.55	0.00	0.00	0.00	0.00	0.00
63	0.00	37.81	0.00	0.00	0.00	0.00	0.00
64	0.00	38.06	0.00	0.00	0.00	0.00	0.00
65	0.00	38.32	0.00	0.00	0.00	0.00	0.00
66	0.00	38.58	0.00	0.00	0.00	0.00	0.00
67	0.00	38.83	0.00	0.00	0.00	0.00	0.00
68	0.00	39.09	0.00	0.00	0.00	0.00	0.00
69	0.00	39.34	0.00	0.00	0.00	0.00	0.00
70	0.00	39.85	0.00	0.00	0.00	0.00	0.00
71	0.00	40.37	0.00	0.00	0.00	0.00	0.00
72	0.00	40.88	0.00	0.00	0.00	0.00	0.00
73	0.00	41.39	0.00	0.00	0.00	0.00	0.00
74	0.00	41.90	0.00	0.00	0.00	0.00	0.00
75	0.00	42.41	0.00	0.00	0.00	0.00	0.00
76	0.00	42.93	0.00	0.00	0.00	0.00	0.00
77	0.00	43.44	0.00	0.00	0.00	0.00	0.00
78	0.00	43.95	0.00	0.00	0.00	0.00	0.00
79	0.00	44.46	0.00	0.00	0.00	0.00	0.00
80	0.00	45.33	0.00	0.00	0.00	0.00	0.00
81	0.00	45.25	0.00	0.00	0.00	0.00	0.00
82	0.00	45.07	0.00	0.00	0.00	0.00	0.00
83	0.00	44.89	0.00	0.00	0.00	0.00	0.00
84	0.00	44.71	0.00	0.00	0.00	0.00	0.00
85	0.00	44.53	0.00	0.00	0.00	0.00	0.00
86	0.00	44.35	0.00	0.00	0.00	0.00	0.00
87	0.00	44.17	0.00	0.00	0.00	0.00	0.00

MaineDOT Legal Load 5.ANL

88	0.00	44.36	0.00	0.00	0.00	0.00
89	0.00	43.58	0.00	0.00	0.00	0.00
90	0.00	42.71	0.00	0.00	0.00	0.00
91	0.00	41.84	0.00	0.00	0.00	0.00
92	0.00	40.97	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

6

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	40.10	0.00	0.00	0.00	0.00	0.00
94	0.00	39.23	0.00	0.00	0.00	0.00	0.00
95	0.00	38.36	0.00	0.00	0.00	0.00	0.00
96	0.00	37.49	0.00	0.00	0.00	0.00	0.00
97	0.00	36.62	0.00	0.00	0.00	0.00	0.00
98	0.00	35.75	0.00	0.00	0.00	0.00	0.00
99	0.00	34.88	0.00	0.00	0.00	0.00	0.00
100	0.00	34.01	0.00	0.00	0.00	0.00	0.00
101	0.00	33.14	0.00	0.00	0.00	0.00	0.00
102	0.00	32.27	0.00	0.00	0.00	0.00	0.00
103	0.00	31.40	0.00	0.00	0.00	0.00	0.00
104	0.00	30.53	0.00	0.00	0.00	0.00	0.00
105	0.00	29.66	0.00	0.00	0.00	0.00	0.00
106	0.00	28.79	0.00	0.00	0.00	0.00	0.00
107	0.00	27.92	0.00	0.00	0.00	0.00	0.00
108	0.00	27.05	0.00	0.00	0.00	0.00	0.00
109	0.00	25.71	0.00	0.00	0.00	0.00	0.00
110	0.00	24.33	0.00	0.00	0.00	0.00	0.00
111	0.00	22.95	0.00	0.00	0.00	0.00	0.00
112	0.00	21.57	0.00	0.00	0.00	0.00	0.00
113	0.00	20.19	0.00	0.00	0.00	0.00	0.00
114	0.00	18.81	0.00	0.00	0.00	0.00	0.00
115	0.00	17.42	0.00	0.00	0.00	0.00	0.00
116	0.00	16.04	0.00	0.00	0.00	0.00	0.00
117	0.00	14.66	0.00	0.00	0.00	0.00	0.00
118	0.00	13.28	0.00	0.00	0.00	0.00	0.00
119	0.00	11.90	0.00	0.00	0.00	0.00	0.00
120	0.00	10.99	0.00	0.00	0.00	0.00	0.00
121	0.00	10.17	0.00	0.00	0.00	0.00	0.00
122	0.00	9.35	0.00	0.00	0.00	0.00	0.00
123	0.00	8.53	0.00	0.00	0.00	0.00	0.00
124	0.00	7.71	0.00	0.00	0.00	0.00	0.00
125	0.00	6.89	0.00	0.00	0.00	0.00	0.00
126	0.00	6.07	0.00	0.00	0.00	0.00	0.00
127	0.00	5.25	0.00	0.00	0.00	0.00	0.00
128	0.00	4.90	0.00	0.00	0.00	0.00	0.00
129	0.00	4.65	0.00	0.00	0.00	0.00	0.00
130	0.00	4.39	0.00	0.00	0.00	0.00	0.00
131	0.00	4.14	0.00	0.00	0.00	0.00	0.00
132	0.00	3.88	0.00	0.00	0.00	0.00	0.00
133	0.00	3.62	0.00	0.00	0.00	0.00	0.00
134	0.00	3.37	0.00	0.00	0.00	0.00	0.00
135	0.00	3.11	0.00	0.00	0.00	0.00	0.00
136	0.00	2.86	0.00	0.00	0.00	0.00	0.00
137	0.00	2.60	0.00	0.00	0.00	0.00	0.00
138	0.00	2.35	0.00	0.00	0.00	0.00	0.00

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STAAD PLANE

-- PAGE NO.

7

MaineDOT Legal Load 5.ANL

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
	139	0.00	2.09	0.00	0.00	0.00	0.00
	140	0.00	1.83	0.00	0.00	0.00	0.00
	141	0.00	1.58	0.00	0.00	0.00	0.00
	142	0.00	1.32	0.00	0.00	0.00	0.00
	143	0.00	1.07	0.00	0.00	0.00	0.00
	144	0.00	0.81	0.00	0.00	0.00	0.00
	145	0.00	0.55	0.00	0.00	0.00	0.00
	146	0.00	0.30	0.00	0.00	0.00	0.00
	147	0.00	0.04	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:57:34 ****

♀

STAAD PLANE

-- PAGE NO. 8

```
*****
*   For technical assistance on STAAD.Pro, please visit   *
*   http://selectservices.bentley.com/en-US/              *
*                                                         *
*   Details about additional assistance from               *
*   Bentley and Partners can be found at program menu    *
*   Help->Technical Support                               *
*                                                         *
*   Copyright (c) 1997-2015 Bentley Systems, Inc.         *
*   http://www.bentley.com                                *
*****
```

MAINEDOT LEGAL LOAD CONFIGURATION 6 STAAD OUTPUT

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*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:58:17
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG       DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

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42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINE DOT LEGAL LOAD CONFIGURATION 6
51. TYPE 1 LOAD 11.9 21.3 21.4 21.3
52. DIST 9 4 4
53. *
54. * MAINE DOT LEGAL LOAD CONFIGURATION 6
55. LOAD GENERATION 113
56. TYPE 1 -17 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 3 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 3 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 3 OF 4
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 1 OF 4
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
STAAD PLANE

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-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 113, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808221.5 MB

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MaineDOT Legal Load 6.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 6
 64. 1 TO 113 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.54	0.00	0.00	0.00	0.00
	3	0.00	1.09	0.00	0.00	0.00	0.00
	4	0.00	1.63	0.00	0.00	0.00	0.00
	5	0.00	2.18	0.00	0.00	0.00	0.00
	6	0.00	2.72	0.00	0.00	0.00	0.00
	7	0.00	3.27	0.00	0.00	0.00	0.00
	8	0.00	3.81	0.00	0.00	0.00	0.00
	9	0.00	4.36	0.00	0.00	0.00	0.00
	10	0.00	5.45	0.00	0.00	0.00	0.00
	11	0.00	6.54	0.00	0.00	0.00	0.00
	12	0.00	7.64	0.00	0.00	0.00	0.00
	13	0.00	8.73	0.00	0.00	0.00	0.00
	14	0.00	9.82	0.00	0.00	0.00	0.00
	15	0.00	10.92	0.00	0.00	0.00	0.00
	16	0.00	12.01	0.00	0.00	0.00	0.00
	17	0.00	13.10	0.00	0.00	0.00	0.00
	18	0.00	14.74	0.00	0.00	0.00	0.00
	19	0.00	16.38	0.00	0.00	0.00	0.00
	20	0.00	18.01	0.00	0.00	0.00	0.00
	21	0.00	19.65	0.00	0.00	0.00	0.00
	22	0.00	21.29	0.00	0.00	0.00	0.00
	23	0.00	22.93	0.00	0.00	0.00	0.00
	24	0.00	24.56	0.00	0.00	0.00	0.00
	25	0.00	26.20	0.00	0.00	0.00	0.00
	26	0.00	27.84	0.00	0.00	0.00	0.00
	27	0.00	29.48	0.00	0.00	0.00	0.00
	28	0.00	31.11	0.00	0.00	0.00	0.00
	29	0.00	32.75	0.00	0.00	0.00	0.00
	30	0.00	34.39	0.00	0.00	0.00	0.00
	31	0.00	36.03	0.00	0.00	0.00	0.00
	32	0.00	37.66	0.00	0.00	0.00	0.00
	33	0.00	39.30	0.00	0.00	0.00	0.00
	34	0.00	40.94	0.00	0.00	0.00	0.00
	35	0.00	42.58	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 6.ANL

36	0.00	44.52	0.00	0.00	0.00	0.00
37	0.00	46.46	0.00	0.00	0.00	0.00
38	0.00	48.40	0.00	0.00	0.00	0.00
39	0.00	50.34	0.00	0.00	0.00	0.00
40	0.00	52.29	0.00	0.00	0.00	0.00
41	0.00	53.23	0.00	0.00	0.00	0.00
42	0.00	54.08	0.00	0.00	0.00	0.00
43	0.00	54.93	0.00	0.00	0.00	0.00
44	0.00	55.78	0.00	0.00	0.00	0.00
45	0.00	56.64	0.00	0.00	0.00	0.00
46	0.00	57.49	0.00	0.00	0.00	0.00

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STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	58.34	0.00	0.00	0.00	0.00	0.00
48	0.00	59.19	0.00	0.00	0.00	0.00	0.00
49	0.00	59.04	0.00	0.00	0.00	0.00	0.00
50	0.00	58.80	0.00	0.00	0.00	0.00	0.00
51	0.00	58.55	0.00	0.00	0.00	0.00	0.00
52	0.00	58.31	0.00	0.00	0.00	0.00	0.00
53	0.00	58.07	0.00	0.00	0.00	0.00	0.00
54	0.00	57.83	0.00	0.00	0.00	0.00	0.00
55	0.00	57.58	0.00	0.00	0.00	0.00	0.00
56	0.00	57.34	0.00	0.00	0.00	0.00	0.00
57	0.00	56.10	0.00	0.00	0.00	0.00	0.00
58	0.00	54.76	0.00	0.00	0.00	0.00	0.00
59	0.00	53.43	0.00	0.00	0.00	0.00	0.00
60	0.00	52.10	0.00	0.00	0.00	0.00	0.00
61	0.00	50.77	0.00	0.00	0.00	0.00	0.00
62	0.00	49.43	0.00	0.00	0.00	0.00	0.00
63	0.00	48.10	0.00	0.00	0.00	0.00	0.00
64	0.00	46.77	0.00	0.00	0.00	0.00	0.00
65	0.00	45.43	0.00	0.00	0.00	0.00	0.00
66	0.00	44.10	0.00	0.00	0.00	0.00	0.00
67	0.00	42.77	0.00	0.00	0.00	0.00	0.00
68	0.00	41.43	0.00	0.00	0.00	0.00	0.00
69	0.00	40.10	0.00	0.00	0.00	0.00	0.00
70	0.00	38.77	0.00	0.00	0.00	0.00	0.00
71	0.00	37.43	0.00	0.00	0.00	0.00	0.00
72	0.00	36.10	0.00	0.00	0.00	0.00	0.00
73	0.00	34.77	0.00	0.00	0.00	0.00	0.00
74	0.00	33.44	0.00	0.00	0.00	0.00	0.00
75	0.00	31.54	0.00	0.00	0.00	0.00	0.00
76	0.00	29.60	0.00	0.00	0.00	0.00	0.00
77	0.00	27.66	0.00	0.00	0.00	0.00	0.00
78	0.00	25.72	0.00	0.00	0.00	0.00	0.00
79	0.00	23.78	0.00	0.00	0.00	0.00	0.00
80	0.00	22.29	0.00	0.00	0.00	0.00	0.00
81	0.00	20.89	0.00	0.00	0.00	0.00	0.00
82	0.00	19.49	0.00	0.00	0.00	0.00	0.00
83	0.00	18.10	0.00	0.00	0.00	0.00	0.00
84	0.00	16.70	0.00	0.00	0.00	0.00	0.00
85	0.00	15.30	0.00	0.00	0.00	0.00	0.00
86	0.00	13.91	0.00	0.00	0.00	0.00	0.00
87	0.00	12.51	0.00	0.00	0.00	0.00	0.00

MaineDOT Legal Load 6.ANL

88	0.00	11.57	0.00	0.00	0.00	0.00
89	0.00	10.72	0.00	0.00	0.00	0.00
90	0.00	9.87	0.00	0.00	0.00	0.00
91	0.00	9.02	0.00	0.00	0.00	0.00
92	0.00	8.17	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93		0.00	7.32	0.00	0.00	0.00	0.00
94		0.00	6.47	0.00	0.00	0.00	0.00
95		0.00	5.62	0.00	0.00	0.00	0.00
96		0.00	5.23	0.00	0.00	0.00	0.00
97		0.00	4.92	0.00	0.00	0.00	0.00
98		0.00	4.62	0.00	0.00	0.00	0.00
99		0.00	4.31	0.00	0.00	0.00	0.00
100		0.00	4.01	0.00	0.00	0.00	0.00
101		0.00	3.70	0.00	0.00	0.00	0.00
102		0.00	3.40	0.00	0.00	0.00	0.00
103		0.00	3.10	0.00	0.00	0.00	0.00
104		0.00	2.79	0.00	0.00	0.00	0.00
105		0.00	2.49	0.00	0.00	0.00	0.00
106		0.00	2.18	0.00	0.00	0.00	0.00
107		0.00	1.88	0.00	0.00	0.00	0.00
108		0.00	1.57	0.00	0.00	0.00	0.00
109		0.00	1.27	0.00	0.00	0.00	0.00
110		0.00	0.96	0.00	0.00	0.00	0.00
111		0.00	0.66	0.00	0.00	0.00	0.00
112		0.00	0.36	0.00	0.00	0.00	0.00
113		0.00	0.05	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

♀ STAAD PLANE -- PAGE NO. 7

***** END OF THE STAAD.Pro RUN *****

*** DATE= OCT 10,2017 TIME= 16:58:19 ***

```

*****
*   For technical assistance on STAAD.Pro, please visit   *
*   http://selectservices.bentley.com/en-US/              *
*                                                         *
*   Details about additional assistance from              *
*   Bentley and Partners can be found at program menu    *
*   Help->Technical Support                               *
*                                                         *
*   Copyright (c) 1997-2015 Bentley Systems, Inc.        *
*   http://www.bentley.com                                *

```

MaineDOT Legal Load 6.ANL

MAINEDOT LEGAL LOAD CONFIGURATION 7 STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version  20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:58:50
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG      DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY -----
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES -----
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINE DOT LEGAL LOAD CONFIGURATION 7
51. TYPE 1 LOAD 13.4 23 23
52. DIST 10 4
53. *
54. * MAINE DOT LEGAL LOAD CONFIGURATION 7
55. LOAD GENERATION 107
56. TYPE 1 -14 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 2 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 5 WHEEL 1 OF 3
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
    OF THE STRUCTURE HAS BEEN IGNORED. CASE= 5 WHEEL 2 OF 3
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
STAAD PLANE

```

-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 107, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808223.9 MB

```

MaineDOT Legal Load 7.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 7
 64. 1 TO 107 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.59	0.00	0.00	0.00	0.00
	3	0.00	1.18	0.00	0.00	0.00	0.00
	4	0.00	1.77	0.00	0.00	0.00	0.00
	5	0.00	2.35	0.00	0.00	0.00	0.00
	6	0.00	2.94	0.00	0.00	0.00	0.00
	7	0.00	3.53	0.00	0.00	0.00	0.00
	8	0.00	4.12	0.00	0.00	0.00	0.00
	9	0.00	4.71	0.00	0.00	0.00	0.00
	10	0.00	5.88	0.00	0.00	0.00	0.00
	11	0.00	7.06	0.00	0.00	0.00	0.00
	12	0.00	8.24	0.00	0.00	0.00	0.00
	13	0.00	9.42	0.00	0.00	0.00	0.00
	14	0.00	10.59	0.00	0.00	0.00	0.00
	15	0.00	11.77	0.00	0.00	0.00	0.00
	16	0.00	12.95	0.00	0.00	0.00	0.00
	17	0.00	14.12	0.00	0.00	0.00	0.00
	18	0.00	15.30	0.00	0.00	0.00	0.00
	19	0.00	16.48	0.00	0.00	0.00	0.00
	20	0.00	17.65	0.00	0.00	0.00	0.00
	21	0.00	18.83	0.00	0.00	0.00	0.00
	22	0.00	20.01	0.00	0.00	0.00	0.00
	23	0.00	21.19	0.00	0.00	0.00	0.00
	24	0.00	22.36	0.00	0.00	0.00	0.00
	25	0.00	23.54	0.00	0.00	0.00	0.00
	26	0.00	24.72	0.00	0.00	0.00	0.00
	27	0.00	25.89	0.00	0.00	0.00	0.00
	28	0.00	27.07	0.00	0.00	0.00	0.00
	29	0.00	28.25	0.00	0.00	0.00	0.00
	30	0.00	29.77	0.00	0.00	0.00	0.00
	31	0.00	31.29	0.00	0.00	0.00	0.00
	32	0.00	32.81	0.00	0.00	0.00	0.00
	33	0.00	34.33	0.00	0.00	0.00	0.00
	34	0.00	35.85	0.00	0.00	0.00	0.00
	35	0.00	37.37	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 7.ANL

36	0.00	38.89	0.00	0.00	0.00	0.00
37	0.00	40.41	0.00	0.00	0.00	0.00
38	0.00	41.93	0.00	0.00	0.00	0.00
39	0.00	43.45	0.00	0.00	0.00	0.00
40	0.00	44.97	0.00	0.00	0.00	0.00
41	0.00	45.41	0.00	0.00	0.00	0.00
42	0.00	45.75	0.00	0.00	0.00	0.00
43	0.00	46.09	0.00	0.00	0.00	0.00
44	0.00	46.43	0.00	0.00	0.00	0.00
45	0.00	46.78	0.00	0.00	0.00	0.00
46	0.00	47.12	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	47.46	0.00	0.00	0.00	0.00	0.00
48	0.00	47.81	0.00	0.00	0.00	0.00	0.00
49	0.00	47.07	0.00	0.00	0.00	0.00	0.00
50	0.00	46.24	0.00	0.00	0.00	0.00	0.00
51	0.00	45.40	0.00	0.00	0.00	0.00	0.00
52	0.00	44.57	0.00	0.00	0.00	0.00	0.00
53	0.00	43.73	0.00	0.00	0.00	0.00	0.00
54	0.00	42.90	0.00	0.00	0.00	0.00	0.00
55	0.00	42.07	0.00	0.00	0.00	0.00	0.00
56	0.00	41.23	0.00	0.00	0.00	0.00	0.00
57	0.00	40.40	0.00	0.00	0.00	0.00	0.00
58	0.00	39.56	0.00	0.00	0.00	0.00	0.00
59	0.00	38.73	0.00	0.00	0.00	0.00	0.00
60	0.00	37.90	0.00	0.00	0.00	0.00	0.00
61	0.00	37.06	0.00	0.00	0.00	0.00	0.00
62	0.00	36.23	0.00	0.00	0.00	0.00	0.00
63	0.00	35.39	0.00	0.00	0.00	0.00	0.00
64	0.00	34.56	0.00	0.00	0.00	0.00	0.00
65	0.00	33.72	0.00	0.00	0.00	0.00	0.00
66	0.00	32.89	0.00	0.00	0.00	0.00	0.00
67	0.00	32.06	0.00	0.00	0.00	0.00	0.00
68	0.00	31.22	0.00	0.00	0.00	0.00	0.00
69	0.00	29.76	0.00	0.00	0.00	0.00	0.00
70	0.00	28.24	0.00	0.00	0.00	0.00	0.00
71	0.00	26.72	0.00	0.00	0.00	0.00	0.00
72	0.00	25.20	0.00	0.00	0.00	0.00	0.00
73	0.00	23.68	0.00	0.00	0.00	0.00	0.00
74	0.00	22.16	0.00	0.00	0.00	0.00	0.00
75	0.00	20.64	0.00	0.00	0.00	0.00	0.00
76	0.00	19.12	0.00	0.00	0.00	0.00	0.00
77	0.00	17.60	0.00	0.00	0.00	0.00	0.00
78	0.00	16.08	0.00	0.00	0.00	0.00	0.00
79	0.00	14.56	0.00	0.00	0.00	0.00	0.00
80	0.00	13.53	0.00	0.00	0.00	0.00	0.00
81	0.00	12.60	0.00	0.00	0.00	0.00	0.00
82	0.00	11.67	0.00	0.00	0.00	0.00	0.00
83	0.00	10.74	0.00	0.00	0.00	0.00	0.00
84	0.00	9.81	0.00	0.00	0.00	0.00	0.00
85	0.00	8.88	0.00	0.00	0.00	0.00	0.00
86	0.00	7.94	0.00	0.00	0.00	0.00	0.00
87	0.00	7.01	0.00	0.00	0.00	0.00	0.00

MaineDOT Legal Load 7.ANL

88	0.00	6.57	0.00	0.00	0.00	0.00
89	0.00	6.23	0.00	0.00	0.00	0.00
90	0.00	5.89	0.00	0.00	0.00	0.00
91	0.00	5.54	0.00	0.00	0.00	0.00
92	0.00	5.20	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	4.86	0.00	0.00	0.00	0.00	0.00
94	0.00	4.51	0.00	0.00	0.00	0.00	0.00
95	0.00	4.17	0.00	0.00	0.00	0.00	0.00
96	0.00	3.83	0.00	0.00	0.00	0.00	0.00
97	0.00	3.49	0.00	0.00	0.00	0.00	0.00
98	0.00	3.14	0.00	0.00	0.00	0.00	0.00
99	0.00	2.80	0.00	0.00	0.00	0.00	0.00
100	0.00	2.46	0.00	0.00	0.00	0.00	0.00
101	0.00	2.11	0.00	0.00	0.00	0.00	0.00
102	0.00	1.77	0.00	0.00	0.00	0.00	0.00
103	0.00	1.43	0.00	0.00	0.00	0.00	0.00
104	0.00	1.09	0.00	0.00	0.00	0.00	0.00
105	0.00	0.74	0.00	0.00	0.00	0.00	0.00
106	0.00	0.40	0.00	0.00	0.00	0.00	0.00
107	0.00	0.06	0.00	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:58:52 ****

♀ STAAD PLANE -- PAGE NO. 7

```
*****
*   For technical assistance on STAAD.Pro, please visit   *
*   http://selectservices.bentley.com/en-US/              *
*                                                         *
*   Details about additional assistance from               *
*   Bentley and Partners can be found at program menu    *
*   Help->Technical Support                               *
*                                                         *
*   Copyright (c) 1997-2015 Bentley Systems, Inc.         *
*   http://www.bentley.com                                *
*****
```

MAINEDOT LEGAL LOAD CONFIGURATION 8 STAAD OUTPUT

```

*****
*
*          STAAD.Pro V8i SELECTseries6
*          Version 20.07.11.50
*          Proprietary Program of
*          Bentley Systems, Inc.
*          Date=    OCT 10, 2017
*          Time=    16:59:13
*
*          USER ID: HNTB Corporation
*****

```

```

1. STAAD PLANE
INPUT FILE: U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska
Bridge\Floorbeams\2 - FB ...STD
2. START JOB INFORMATION
3. ENGINEER DATE 10/02/17
4. END JOB INFORMATION
5. *
6. * 2 STRINGER SPANS OF 19'-6 1/2" (39'-1" TOTAL LENGTH)
7. *
8. * MODEL USES TWO STRINGERS, SIMPLY-SUPPORTED, TO OBTAIN MAXIMUM REACTION
9. * ON FLOORBEAM
10. *
11. *MADE BY: SMZ          DATE: 10/02/17
12. *CHECKED BY: EMG      DATE: 10/08/17
13. *BACKCHECKED BY: SMZ  DATE: 10/10/17
14. *
15. * ----- SECTION GEOMETRY ----- -
16. *
17. INPUT WIDTH 79
18. UNIT FEET KIP
19. JOINT COORDINATES
20. 1 0 0 0; 2 19.5417 0 0; 3 39.0833 0 0
21. MEMBER INCIDENCES
22. 1 1 2; 2 2 3
23. *
24. * ----- MATERIAL PROPERTIES ----- -
25. *
26. SUPPORTS
27. 1 TO 3 PINNED
28. MEMBER RELEASE
29. 1 END MZ
30. 2 START MZ
31. DEFINE MATERIAL START
32. ISOTROPIC STEEL
33. E 4.176E+006
34. POISSON 0.3
35. DENSITY 0.49
36. ALPHA 6E-006
37. DAMP 0.03
38. TYPE STEEL
STAAD PLANE
39. STRENGTH FY 4752 FU 8352 RY 1.5 RT 1.2
40. END DEFINE MATERIAL
41. MEMBER PROPERTY AMERICAN

```

```

42. 1 2 TABLE ST W16X50
43. CONSTANTS
44. MATERIAL STEEL ALL
45. *
46. * ----- LOADS -----
47. *
48. *
49. DEFINE MOVING LOAD
50. * MAINE DOT LEGAL LOAD CONFIGURATION 8
51. TYPE 1 LOAD 13.2 24.2
52. DIST 10
53. *
54. * MAINE DOT LEGAL LOAD CONFIGURATION 8
55. LOAD GENERATION 99
56. TYPE 1 -10 0 0 XINC 0.5
57. *
58. ** ----- ANALYSIS -----
59. *
60. PERFORM ANALYSIS
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 1 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 2 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 3 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 4 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 5 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 6 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 7 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 8 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 9 WHEEL 1 OF 2
**WARNING-A MOVING LOAD THAT WOULD HAVE BEEN APPLIED BEYOND THE X AND Z RANGES
  OF THE STRUCTURE HAS BEEN IGNORED. CASE= 10 WHEEL 1 OF 2
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
*ADDITIONAL MOVING LOAD MESSAGES SUPPRESSED
STAAD PLANE

```

-- PAGE NO. 3

P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS	3	NUMBER OF MEMBERS	2
NUMBER OF PLATES	0	NUMBER OF SOLIDS	0
NUMBER OF SURFACES	0	NUMBER OF SUPPORTS	3

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

```

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 2 DOF
TOTAL PRIMARY LOAD CASES = 99, TOTAL DEGREES OF FREEDOM = 3
TOTAL LOAD COMBINATION CASES = 0 SO FAR.
SIZE OF STIFFNESS MATRIX = 0 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/-808223.9 MB

```

MaineDOT Legal Load 8.ANL

*WARNING- ZERO STIFFNESS IN DIRECTION 6 AT JOINT 2 EQN.NO. 2
 LOADS APPLIED OR DISTRIBUTED HERE FROM ELEMENTS WILL BE IGNORED.
 THIS MAY BE DUE TO ALL MEMBERS AT THIS JOINT BEING RELEASED OR
 EFFECTIVELY RELEASED IN THIS DIRECTION.

61. DEFINE ENVELOPE
 62. *
 63. * MAINEDOT LEGAL LOAD CONFIGURATION 8
 64. 1 TO 99 ENVELOPE 1 TYPE STRENGTH
 65. *
 66. END DEFINE ENVELOPE
 67. *
 68. * REACTION AT FLOORBEAM
 69. LOAD LIST ENV 1
 70. PRINT SUPPORT REACTION LIST 2
 L SUPPORT REACTION LIST 2
 ♀ STAAD PLANE

-- PAGE NO. 4

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
2	1	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.62	0.00	0.00	0.00	0.00
	3	0.00	1.24	0.00	0.00	0.00	0.00
	4	0.00	1.86	0.00	0.00	0.00	0.00
	5	0.00	2.48	0.00	0.00	0.00	0.00
	6	0.00	3.10	0.00	0.00	0.00	0.00
	7	0.00	3.72	0.00	0.00	0.00	0.00
	8	0.00	4.33	0.00	0.00	0.00	0.00
	9	0.00	4.95	0.00	0.00	0.00	0.00
	10	0.00	5.57	0.00	0.00	0.00	0.00
	11	0.00	6.19	0.00	0.00	0.00	0.00
	12	0.00	6.81	0.00	0.00	0.00	0.00
	13	0.00	7.43	0.00	0.00	0.00	0.00
	14	0.00	8.05	0.00	0.00	0.00	0.00
	15	0.00	8.67	0.00	0.00	0.00	0.00
	16	0.00	9.29	0.00	0.00	0.00	0.00
	17	0.00	9.91	0.00	0.00	0.00	0.00
	18	0.00	10.53	0.00	0.00	0.00	0.00
	19	0.00	11.15	0.00	0.00	0.00	0.00
	20	0.00	11.76	0.00	0.00	0.00	0.00
	21	0.00	12.39	0.00	0.00	0.00	0.00
	22	0.00	13.34	0.00	0.00	0.00	0.00
	23	0.00	14.30	0.00	0.00	0.00	0.00
	24	0.00	15.25	0.00	0.00	0.00	0.00
	25	0.00	16.21	0.00	0.00	0.00	0.00
	26	0.00	17.17	0.00	0.00	0.00	0.00
	27	0.00	18.13	0.00	0.00	0.00	0.00
	28	0.00	19.08	0.00	0.00	0.00	0.00
	29	0.00	20.04	0.00	0.00	0.00	0.00
	30	0.00	21.00	0.00	0.00	0.00	0.00
	31	0.00	21.95	0.00	0.00	0.00	0.00
	32	0.00	22.91	0.00	0.00	0.00	0.00
	33	0.00	23.87	0.00	0.00	0.00	0.00
	34	0.00	24.82	0.00	0.00	0.00	0.00
	35	0.00	25.78	0.00	0.00	0.00	0.00

Page 3

MaineDOT Legal Load 8.ANL

36	0.00	26.74	0.00	0.00	0.00	0.00
37	0.00	27.69	0.00	0.00	0.00	0.00
38	0.00	28.65	0.00	0.00	0.00	0.00
39	0.00	29.61	0.00	0.00	0.00	0.00
40	0.00	30.57	0.00	0.00	0.00	0.00
41	0.00	30.39	0.00	0.00	0.00	0.00
42	0.00	30.11	0.00	0.00	0.00	0.00
43	0.00	29.82	0.00	0.00	0.00	0.00
44	0.00	29.54	0.00	0.00	0.00	0.00
45	0.00	29.26	0.00	0.00	0.00	0.00
46	0.00	28.98	0.00	0.00	0.00	0.00

♀

STAAD PLANE

-- PAGE NO.

5

7

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
47	0.00	28.70	0.00	0.00	0.00	0.00	0.00
48	0.00	28.42	0.00	0.00	0.00	0.00	0.00
49	0.00	28.14	0.00	0.00	0.00	0.00	0.00
50	0.00	27.85	0.00	0.00	0.00	0.00	0.00
51	0.00	27.57	0.00	0.00	0.00	0.00	0.00
52	0.00	27.29	0.00	0.00	0.00	0.00	0.00
53	0.00	27.01	0.00	0.00	0.00	0.00	0.00
54	0.00	26.73	0.00	0.00	0.00	0.00	0.00
55	0.00	26.45	0.00	0.00	0.00	0.00	0.00
56	0.00	26.17	0.00	0.00	0.00	0.00	0.00
57	0.00	25.88	0.00	0.00	0.00	0.00	0.00
58	0.00	25.60	0.00	0.00	0.00	0.00	0.00
59	0.00	25.32	0.00	0.00	0.00	0.00	0.00
60	0.00	25.04	0.00	0.00	0.00	0.00	0.00
61	0.00	24.14	0.00	0.00	0.00	0.00	0.00
62	0.00	23.18	0.00	0.00	0.00	0.00	0.00
63	0.00	22.23	0.00	0.00	0.00	0.00	0.00
64	0.00	21.27	0.00	0.00	0.00	0.00	0.00
65	0.00	20.31	0.00	0.00	0.00	0.00	0.00
66	0.00	19.35	0.00	0.00	0.00	0.00	0.00
67	0.00	18.40	0.00	0.00	0.00	0.00	0.00
68	0.00	17.44	0.00	0.00	0.00	0.00	0.00
69	0.00	16.48	0.00	0.00	0.00	0.00	0.00
70	0.00	15.53	0.00	0.00	0.00	0.00	0.00
71	0.00	14.57	0.00	0.00	0.00	0.00	0.00
72	0.00	13.61	0.00	0.00	0.00	0.00	0.00
73	0.00	12.66	0.00	0.00	0.00	0.00	0.00
74	0.00	11.70	0.00	0.00	0.00	0.00	0.00
75	0.00	10.74	0.00	0.00	0.00	0.00	0.00
76	0.00	9.79	0.00	0.00	0.00	0.00	0.00
77	0.00	8.83	0.00	0.00	0.00	0.00	0.00
78	0.00	7.87	0.00	0.00	0.00	0.00	0.00
79	0.00	6.91	0.00	0.00	0.00	0.00	0.00
80	0.00	6.47	0.00	0.00	0.00	0.00	0.00
81	0.00	6.14	0.00	0.00	0.00	0.00	0.00
82	0.00	5.80	0.00	0.00	0.00	0.00	0.00
83	0.00	5.46	0.00	0.00	0.00	0.00	0.00
84	0.00	5.12	0.00	0.00	0.00	0.00	0.00
85	0.00	4.78	0.00	0.00	0.00	0.00	0.00
86	0.00	4.45	0.00	0.00	0.00	0.00	0.00
87	0.00	4.11	0.00	0.00	0.00	0.00	0.00

			MaineDOT Legal Load 8.ANL				
88	0.00	3.77	0.00	0.00	0.00	0.00	0.00
89	0.00	3.43	0.00	0.00	0.00	0.00	0.00
90	0.00	3.10	0.00	0.00	0.00	0.00	0.00
91	0.00	2.76	0.00	0.00	0.00	0.00	0.00
92	0.00	2.42	0.00	0.00	0.00	0.00	0.00

♀ STAAD PLANE -- PAGE NO. 6

SUPPORT REACTIONS -UNIT KIP FEET STRUCTURE TYPE = PLANE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
93	0.00	2.08	0.00	0.00	0.00	0.00	0.00
94	0.00	1.74	0.00	0.00	0.00	0.00	0.00
95	0.00	1.41	0.00	0.00	0.00	0.00	0.00
96	0.00	1.07	0.00	0.00	0.00	0.00	0.00
97	0.00	0.73	0.00	0.00	0.00	0.00	0.00
98	0.00	0.39	0.00	0.00	0.00	0.00	0.00
99	0.00	0.06	0.00	0.00	0.00	0.00	0.00

***** END OF LATEST ANALYSIS RESULT *****

71. *
72. *
73. FINISH

***** END OF THE STAAD.Pro RUN *****

**** DATE= OCT 10,2017 TIME= 16:59:16 ****

♀ STAAD PLANE -- PAGE NO. 7

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*****
*   For technical assistance on STAAD.Pro, please visit   *
*   http://selectservices.bentley.com/en-US/              *
*                                                         *
*   Details about additional assistance from              *
*   Bentley and Partners can be found at program menu    *
*   Help->Technical Support                               *
*                                                         *
*   Copyright (c) 1997-2015 Bentley Systems, Inc.        *
*   http://www.bentley.com                                *
*****
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FLOORBEAM LOAD RATINGS

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17



Floorbeam Load Ratings Information

Factors

System Factor, $\Phi_s = 0.85$ AASHTO MBE Table 6A.4.2.4-1, Floorbeams with Spacing >12 ft and Noncontinuous Stringers

Condition Factor, $\Phi_c = 0.90$ AASHTO MBE Table 6A.4.2.3-1, Poor Structural Condition per 2017 Inspection
(0.85 increased by 0.05 to 0.90 because section losses were field measured)

$\Phi_c * \Phi_s = 0.85$ (minimum 0.85 per AASHTO MBE 6A.4.2.1-3)

Dead load Factor (γ_{dc}) = 1.25 AASHTO MBE Table 6A.4.2.2-1

Live Load Factors (γ_{LL}) = 1.75 HL-93 Inventory, AASHTO MBE Table 6A.4.2.2-1

1.35 HL-93 Operating, AASHTO MBE Table 6A.4.2.2-1

1.63 CL-625-ONT Inventory, CHBDC 14.13.2.1 Table 14.8 per AASHTO LRFD C6A.1.3, Target Reliability Index, $\beta = 3.50$

1.35 CL-625-ONT Operating, CHBDC 14.13.2.1 Table 14.8 per AASHTO LRFD C6A.1.3, Target Reliability Index, $\beta = 2.50$

1.30 MaineDOT Legal Loads, AASHTO MBE Table 6A.4.2.2-1 & Table 6A.4.2.3a-1 (ADTT<1000) (See 2013 Interims)

Dynamic Load Allow Factors = 1.33 AASHTO HL-93 & MaineDOT Legal Configurations

1.25 CHBDC CL-625-ONT Truck

1.00 CHBDC CL-625-ONT Lane Load

Multiple Presence Factors = 1.00 HL-93 & MaineDOT Legal Loads, AASHTO LRFD Table 3.6.1.1.2-1 (2 lanes)

0.90 CL-625-ONT Truck & Lane Load, CHBDC Table 3.6 (2 lanes)

Capacity Information

F_{nc} & $F_{nt} = 30$ ksi (see capacity calculations)

Section Modulus, $S_{x1} = 190.80$ in³ (Minimum S_x from Analysis Section 1, IES ShapeBuilder Model)

Section Modulus, $S_{x2} = 221.40$ in³ (Minimum S_x from Analysis Section 2, IES ShapeBuilder Model)

Section Modulus, $S_{x3} = 230.70$ in³ (Minimum S_x from Analysis Section 3, IES ShapeBuilder Model)

Section Modulus, $S_{x4} = 273.40$ in³ (Minimum S_x for section without losses, IES ShapeBuilder Model)

Load Rating Considerations

Moment Member Capacity is found by multiplying the Section Modulus, S_x , and the nominal flexural resistance, F_{nc} or F_{nt} .

The CL-625-ONT has two separate configurations. The first case (Truck) is only the CL-625-ONT truck and the second case (Lane) is 80% of the CL-625-ONT truck combined with a uniform load.

From the 2017 inspection 4 typical sections were considered for evaluation.

Analysis section 1, This case considered a sever condition with moderate loss to the web and flanges plus a hole in the web, but included a repair plate.

Analysis section 2, This case considered a sever condition with moderate losses to the web and flanges but no repairs.

Analysis section 3, This case considered a moderate condition, assume minor to moderate losses to the web and flanges.

Analysis section without losses, this was considered for cases where no section losses were noted.

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17



Floorbeam Load Ratings

$$C = \phi_c \phi_s \phi_{Rn} \quad 6A.4.2.1-2$$

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

Moment Ratings

	Vehicle	Member Capacity (k-ft)	Unfactored Loads (k-ft)		Capacity, C $\phi_s \phi_c \phi_{Rn}$ (k-ft)	Factored Loads (k-ft)			Rating Factors	
			Dead	LL + IM		Dead Load	Live Load Inv. / Legal	Operating	Inventory / Legal	Operating
Analysis Section 1 (@ midspan)	HL-93	477.00	50.43	505.40	405.45	63.04	884.45	682.29	0.38	0.50
	CL-625-ONT Truck	477.00	50.43	532.79	405.45	63.04	781.60	647.34	0.43	0.52
	CL-625-ONT Lane Load	477.00	50.43	425.39	405.45	63.04	624.05	516.85	0.54	0.66
	MaineDOT Legal 1	477.00	50.43	401.73	405.45	63.04	522.24	---	0.65	---
	MaineDOT Legal 2	477.00	50.43	471.92	405.45	63.04	613.50	---	0.55	---
	MaineDOT Legal 3	477.00	50.43	451.81	405.45	63.04	587.36	---	0.58	---
	MaineDOT Legal 4	477.00	50.43	434.03	405.45	63.04	564.24	---	0.60	---
	MaineDOT Legal 5	477.00	50.43	422.02	405.45	63.04	548.63	---	0.62	---
	MaineDOT Legal 6	477.00	50.43	551.06	405.45	63.04	716.38	---	0.47	---
	MaineDOT Legal 7	477.00	50.43	445.11	405.45	63.04	578.64	---	0.59	---
	MaineDOT Legal 8	477.00	50.43	284.61	405.45	63.04	369.99	---	0.92	---
Analysis Section 2 (@ midspan)	HL-93	553.50	50.43	505.40	470.48	63.04	884.45	682.29	0.46	0.59
	CL-625-ONT Truck	553.50	50.43	532.79	470.48	63.04	781.60	647.34	0.52	0.62
	CL-625-ONT Lane Load	553.50	50.43	425.39	470.48	63.04	624.05	516.85	0.65	0.78
	MaineDOT Legal 1	553.50	50.43	401.73	470.48	63.04	522.24	---	0.78	---
	MaineDOT Legal 2	553.50	50.43	471.92	470.48	63.04	613.50	---	0.66	---
	MaineDOT Legal 3	553.50	50.43	451.81	470.48	63.04	587.36	---	0.69	---
	MaineDOT Legal 4	553.50	50.43	434.03	470.48	63.04	564.24	---	0.72	---
	MaineDOT Legal 5	553.50	50.43	422.02	470.48	63.04	548.63	---	0.74	---
	MaineDOT Legal 6	553.50	50.43	551.06	470.48	63.04	716.38	---	0.56	---
	MaineDOT Legal 7	553.50	50.43	445.11	470.48	63.04	578.64	---	0.70	---
	MaineDOT Legal 8	553.50	50.43	284.61	470.48	63.04	369.99	---	1.10	---

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17



Floorbeam Load Ratings

$$C = \phi_c \phi_s \phi R_n \quad 6A.4.2.1-2$$

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

Moment Ratings

	Vehicle	Member Capacity (k-ft)	Unfactored Loads (k-ft)		Capacity, C $\phi_s \phi_c \phi R_n$ (k-ft)	Factored Loads (k-ft)			Rating Factors	
			Dead	LL + IM		Dead Load	Live Load Inv. / Legal	Operating	Inventory / Legal	Operating
Analysis Section 3 (@ midspan)	HL-93	576.75	50.43	505.40	490.24	63.04	884.45	682.29	0.48	0.62
	CL-625-ONT Truck	576.75	50.43	532.79	490.24	63.04	781.60	647.34	0.54	0.65
	CL-625-ONT Lane Load	576.75	50.43	425.39	490.24	63.04	624.05	516.85	0.68	0.82
	MaineDOT Legal 1	576.75	50.43	401.73	490.24	63.04	522.24	---	0.81	---
	MaineDOT Legal 2	576.75	50.43	471.92	490.24	63.04	613.50	---	0.69	---
	MaineDOT Legal 3	576.75	50.43	451.81	490.24	63.04	587.36	---	0.72	---
	MaineDOT Legal 4	576.75	50.43	434.03	490.24	63.04	564.24	---	0.75	---
	MaineDOT Legal 5	576.75	50.43	422.02	490.24	63.04	548.63	---	0.77	---
	MaineDOT Legal 6	576.75	50.43	551.06	490.24	63.04	716.38	---	0.59	---
	MaineDOT Legal 7	576.75	50.43	445.11	490.24	63.04	578.64	---	0.73	---
	MaineDOT Legal 8	576.75	50.43	284.61	490.24	63.04	369.99	---	1.15	---
Section Without Losses (@ midspan)	HL-93	683.50	50.43	505.40	580.98	63.04	884.45	682.29	0.58	0.75
	CL-625-ONT Truck	683.50	50.43	532.79	580.98	63.04	781.60	647.34	0.66	0.80
	CL-625-ONT Lane Load	683.50	50.43	425.39	580.98	63.04	624.05	516.85	0.82	1.00
	MaineDOT Legal 1	683.50	50.43	401.73	580.98	63.04	522.24	---	0.99	---
	MaineDOT Legal 2	683.50	50.43	471.92	580.98	63.04	613.50	---	0.84	---
	MaineDOT Legal 3	683.50	50.43	451.81	580.98	63.04	587.36	---	0.88	---
	MaineDOT Legal 4	683.50	50.43	434.03	580.98	63.04	564.24	---	0.91	---
	MaineDOT Legal 5	683.50	50.43	422.02	580.98	63.04	548.63	---	0.94	---
	MaineDOT Legal 6	683.50	50.43	551.06	580.98	63.04	716.38	---	0.72	---
	MaineDOT Legal 7	683.50	50.43	445.11	580.98	63.04	578.64	---	0.89	---
	MaineDOT Legal 8	683.50	50.43	284.61	580.98	63.04	369.99	---	1.39	---

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17



Floorbeam Load Ratings

$$C = \phi_c \phi_s \phi R_n \quad 6A.4.2.1-2$$

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

Shear Ratings

	Vehicle	Member Capacity (k-ft)	Unfactored Loads (k-ft)		Capacity, C $\phi_s \phi_c \phi R_n$ (k-ft)	Factored Loads (k-ft)			Rating Factors	
			Dead	LL + IM		Dead Load	Live Load Inv. / Legal	Operating	Inventory / Legal	Operating
Analysis Section 1 (@ Stringer 2)	HL-93	207.06	6.08	69.39	176.00	7.61	121.42	93.67	1.38	1.79
	CL-625-ONT Truck	207.06	6.08	76.11	176.00	7.61	111.66	92.48	1.50	1.82
	CL-625-ONT Lane Load	207.06	6.08	58.06	176.00	7.61	85.17	70.54	1.97	2.38
	MaineDOT Legal 1	207.06	6.08	57.39	176.00	7.61	74.61	---	2.25	---
	MaineDOT Legal 2	207.06	6.08	67.42	176.00	7.61	87.64	---	1.92	---
	MaineDOT Legal 3	207.06	6.08	64.54	176.00	7.61	83.91	---	2.00	---
	MaineDOT Legal 4	207.06	6.08	62.00	176.00	7.61	80.61	---	2.08	---
	MaineDOT Legal 5	207.06	6.08	60.29	176.00	7.61	78.38	---	2.14	---
	MaineDOT Legal 6	207.06	6.08	78.72	176.00	7.61	102.34	---	1.64	---
	MaineDOT Legal 7	207.06	6.08	63.59	176.00	7.61	82.66	---	2.03	---
	MaineDOT Legal 8	207.06	6.08	40.66	176.00	7.61	52.86	---	3.18	---
Analysis Section 2 (@ Stringer 2)	HL-93	127.37	6.08	69.39	108.26	7.61	121.42	93.67	0.82	1.07
	CL-625-ONT Truck	127.37	6.08	76.11	108.26	7.61	111.66	92.48	0.90	1.08
	CL-625-ONT Lane Load	127.37	6.08	58.06	108.26	7.61	85.17	70.54	1.18	1.42
	MaineDOT Legal 1	127.37	6.08	57.39	108.26	7.61	74.61	---	1.34	---
	MaineDOT Legal 2	127.37	6.08	67.42	108.26	7.61	87.64	---	1.14	---
	MaineDOT Legal 3	127.37	6.08	64.54	108.26	7.61	83.91	---	1.19	---
	MaineDOT Legal 4	127.37	6.08	62.00	108.26	7.61	80.61	---	1.24	---
	MaineDOT Legal 5	127.37	6.08	60.29	108.26	7.61	78.38	---	1.28	---
	MaineDOT Legal 6	127.37	6.08	78.72	108.26	7.61	102.34	---	0.98	---
	MaineDOT Legal 7	127.37	6.08	63.59	108.26	7.61	82.66	---	1.21	---
	MaineDOT Legal 8	127.37	6.08	40.66	108.26	7.61	52.86	---	1.90	---

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	10/02/17	Date	10/08/17	Date	10/10/17



Floorbeam Load Ratings

$$C = \phi_c \phi_s \phi R_n \quad 6A.4.2.1-2$$

$$\frac{C - \gamma_{DC} * DC}{\gamma_{LL} * (LL + IM)} \quad 6A.4.2.1-1$$

Shear Ratings

	Vehicle	Member Capacity (k-ft)	Unfactored Loads (k-ft)		Capacity, C $\Phi_s \Phi_c \Phi_{Rn}$ (k-ft)	Factored Loads (k-ft)			Rating Factors	
			Dead	LL + IM		Dead Load	Live Load Inv. / Legal	Operating	Inventory / Legal	Operating
Analysis Section 3 (@ Stringer 2)	HL-93	157.47	6.08	69.39	133.85	7.61	121.42	93.67	1.03	1.34
	CL-625-ONT Truck	157.47	6.08	76.11	133.85	7.61	111.66	92.48	1.13	1.36
	CL-625-ONT Lane Load	157.47	6.08	58.06	133.85	7.61	85.17	70.54	1.48	1.78
	MaineDOT Legal 1	157.47	6.08	57.39	133.85	7.61	74.61	---	1.69	---
	MaineDOT Legal 2	157.47	6.08	67.42	133.85	7.61	87.64	---	1.44	---
	MaineDOT Legal 3	157.47	6.08	64.54	133.85	7.61	83.91	---	1.50	---
	MaineDOT Legal 4	157.47	6.08	62.00	133.85	7.61	80.61	---	1.56	---
	MaineDOT Legal 5	157.47	6.08	60.29	133.85	7.61	78.38	---	1.61	---
	MaineDOT Legal 6	157.47	6.08	78.72	133.85	7.61	102.34	---	1.23	---
	MaineDOT Legal 7	157.47	6.08	63.59	133.85	7.61	82.66	---	1.52	---
	MaineDOT Legal 8	157.47	6.08	40.66	133.85	7.61	52.86	---	2.38	---
Section Without Losses (@ Floorbeam end)	HL-93	193.64	9.36	72.20	164.60	11.70	126.35	97.47	1.21	1.56
	CL-625-ONT Truck	193.64	9.36	76.11	164.60	11.70	111.66	92.48	1.36	1.65
	CL-625-ONT Lane Load	193.64	9.36	60.77	164.60	11.70	89.15	73.84	1.71	2.07
	MaineDOT Legal 1	193.64	9.36	57.39	164.60	11.70	74.61	---	2.04	---
	MaineDOT Legal 2	193.64	9.36	67.42	164.60	11.70	87.64	---	1.74	---
	MaineDOT Legal 3	193.64	9.36	64.54	164.60	11.70	83.91	---	1.82	---
	MaineDOT Legal 4	193.64	9.36	62.00	164.60	11.70	80.61	---	1.89	---
	MaineDOT Legal 5	193.64	9.36	60.29	164.60	11.70	78.38	---	1.95	---
	MaineDOT Legal 6	193.64	9.36	78.72	164.60	11.70	102.34	---	1.49	---
	MaineDOT Legal 7	193.64	9.36	63.59	164.60	11.70	82.66	---	1.84	---
	MaineDOT Legal 8	193.64	9.36	40.66	164.60	11.70	52.86	---	2.89	---

STRINGER LOAD RATING ANALYSIS

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 1 of __

Project: Madawaska Bridge Rating	Job No: 63738	Design Criteria Document: 1
Client: MaineDOT	Discipline: Structures	Calculation No: 1

Name or Description of Calculation: Madawaska Bridge Rating - Stringers				
Calc. Rev. No.	Originator	Checker	Senior Technical Reviewer (if required)	Confirmation Required (Y/N)
1	Shane M. Zeller	Eric Gogola		

Calculation Objective: Determine load rating for the stringers of Madawaska Bridge.

Calculation Methodology/List of Assumptions: The stringers were rated for the following vehicles: - AASHTO HL-93 - CHBDC CL-625-ONT (Canadian Vehicle) - MaineDOT Legal Load Configurations A preliminary rating was performed to compare the load ratings from STLRFD, a PennDOT program, to the previous rating done by an outside company using the analysis program, Merlin-DASH. STLRFD was determined to provide comparable results and was used to rate the stringers. STLRFD does not have an input for condition factors or system factors; therefore, these factors were calculated into a single live load factor and incorporated into the program's live load factor. While this method is slightly unconservative, the rating factors are not significantly affected because the dead load is small in proportion to the live load. The live load factors and multiple presence factor for the Canadian vehicle were taken from CHBDC. Section losses were provided via the 2017 inspection report and separated into four categories based on severity: minor, moderate, severe and critical for both shear and flexure. These losses were used to evaluate the condition of the stringers using the "Section Loss" command in STLRFD. Section losses found during the 2017 inspection are incorporated into the STLRFD analysis and ratings. Six cross sections with losses were identified for evaluation: Section 1 had extreme section losses at a stringer end. Section 2 had extreme section losses to the stringer top flange. Section 3 had severe section losses to the stringer end. Section 4 had moderate section losses to the stringer flange. Section 5 had moderate section losses to the stringer end. Section 6 had minor section losses over the entire stringer. Sections 1 & 2 are used to define a member with critical section losses. Section 1 is applied to the stringer end to define the critical shear condition and section 2 is applied to the remaining portions of the stringer to define the critical flexural conditions. Section 3 is used to define the typical severe section loss condition. These losses are applied at only the stringer end as noted in the inspection. However, the losses are significant enough to govern both shear and flexure.

HNTB	Prepared by: M. Ellis	Approved by: D. Evans	Document number: QF 06
Calculation Cover Sheet	Revision Number: 0	Revision Date: 01/22/2016	Page 2 of __

Sections 4 & 5 are used to define a member with moderate section losses. Section 5 is applied to the stringer end to define the moderate shear condition and section 4 is applied to the remaining portions of the stringer to define the moderate flexural conditions.

Section 6 is used to define the typical minor section loss condition. These losses are applied to the entire stringer as noted in the inspection. These section losses result in shear and flexure rating for the minor loss condition.

STLRFD requires slab parameters be entered for evaluation of the member. It is assumed that the steel grid deck which currently is welded at distinct locations across the length of each stringer is non-composite. Therefore, the density of the slab is set to zero so that no composite action is applied to the stringer. The dead load of the steel grid deck is applied to the stringers via the "Distributed Load" command. The stringers are considered braced at midspan following the assumption used by PB in the 2012 load rating. This assumption is supported by the fact that the steel grid deck is intermittently welded to the top flange of the stringer.

The geometry, dead loads, and distribution factors that were input into STLRFD were taken from the 2012 loading rating performed by Parsons Brinckerhoff.

References/Inputs:

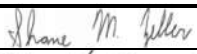
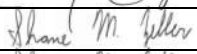
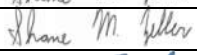
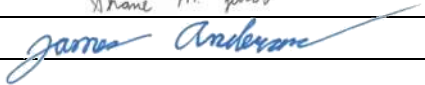
AASHTO LRFD 2014 (2016 Interims)
AASHTO Manual for Bridge Evaluation (MBE) 2011 (2016 Interims)
PennDOT's STLRFD User Manual 2.4.0.0
Canadian Highway Bridge Design Code (CHBDC) S6-14
MaineDOT Load Rating guide
Parsons Brinckerhoff (PB) 2012 Load Rating Report

Attachments:

In-House Spreadsheet Calculations
STLRFD Output
Inspection Report Sketches

Conclusions:

See rating summary table.

Document Check:	Name	Signature	Date
Originator:	James Anderson		09/22/2017
Checker:	Eric Gogola		09/29/2017
BackChecker:	Shane M. Zeller		09/29/2017
Updater:	Shane M. Zeller		10/02/2017
Verifier:	James Anderson		10/05/2017

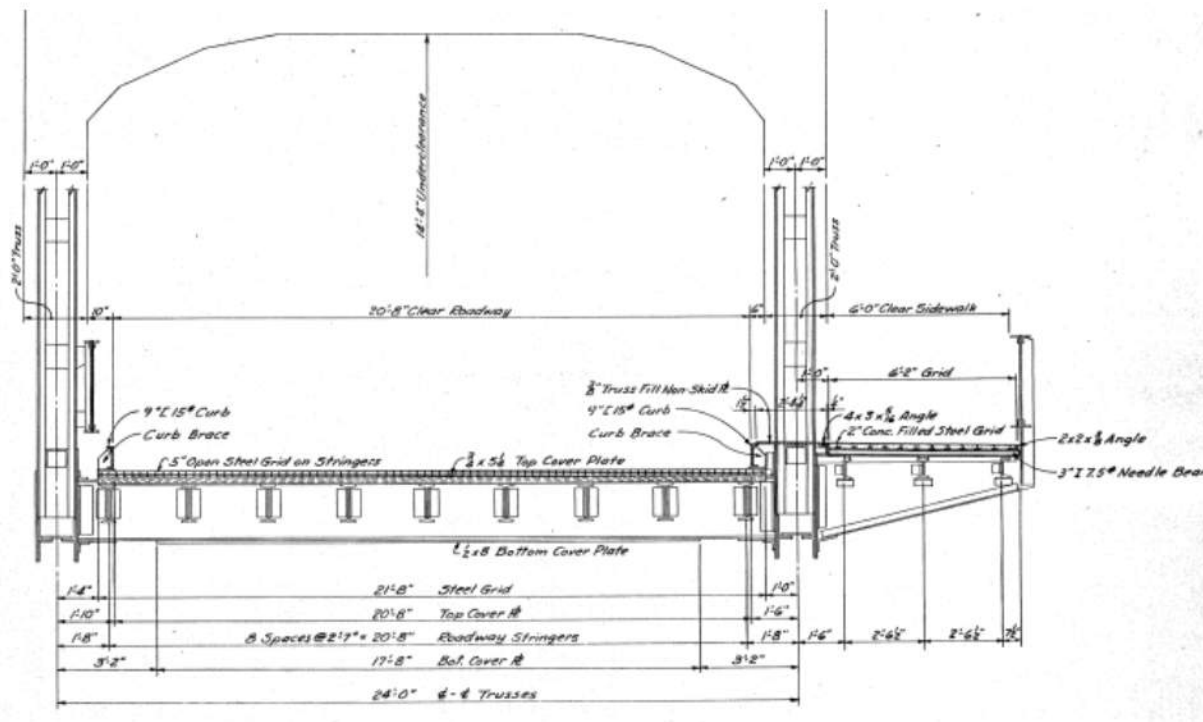
STRINGER RATING SUMMARY

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

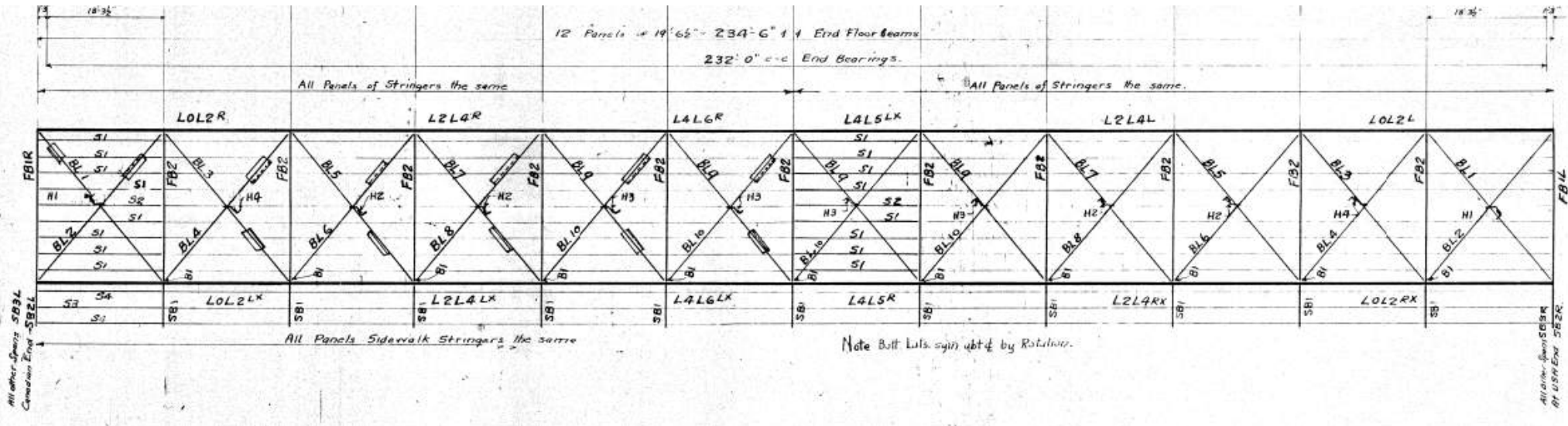


Stringer Load Ratings Summary

Vehicle	Critical SL		Severe SL		Moderate SL		Minor SL	
	Shear	Flexure	Shear	Flexure	Shear	Flexure	Shear	Flexure
HL-93 (Tandem) Inventory	0.00	0.12	0.68	0.44	0.77	0.61	1.14	1.10
HL-93 (Tandem) Operating	0.00	0.16	0.89	0.57	1.00	0.79	1.48	1.43
CL-625-ONT Truck Inventory	0.00	0.14	0.73	0.49	0.83	0.68	1.22	1.24
CL-625-ONT Truck Operating	0.00	0.17	0.89	0.60	1.00	0.83	1.48	1.50
CL-625-ONT Lane Load Inventory	0.00	0.19	1.02	0.67	1.14	0.93	1.70	1.69
CL-625-ONT Lane Load Operating	0.00	0.23	1.23	0.82	1.38	1.13	2.05	2.04
MaineDOT Legal Configuration 1	0.00	0.22	1.15	0.73	1.29	1.01	1.91	1.83
MaineDOT Legal Configuration 2	0.00	0.22	1.11	0.73	1.25	1.01	1.85	1.83
MaineDOT Legal Configuration 3	0.00	0.22	1.12	0.73	1.27	1.01	1.88	1.83
MaineDOT Legal Configuration 4	0.00	0.24	1.12	0.87	1.26	1.21	1.87	2.14
MaineDOT Legal Configuration 5	0.00	0.21	1.08	0.75	1.21	1.04	1.80	1.88
MaineDOT Legal Configuration 6	0.00	0.17	0.87	0.57	0.98	0.79	1.45	1.43
MaineDOT Legal Configuration 7	0.00	0.20	1.01	0.72	1.14	0.99	1.69	1.79
MaineDOT Legal Configuration 8	0.00	0.28	1.49	1.07	1.68	1.47	2.49	2.51



TYPICAL TRUSS SECTION



FRAMING PLAN

STLRFD INPUT INFORMATION (FROM 2012 PB LOAD RATING)



PARSONS BRINCKERHOFF COMPUTATION SHEET

59

Page 1 of
Made by B. HOLSAPPLE
Date 3/13/2012
Checked by RGN
Date 4/12

Subject MAINE NORTH TRUSSES - 2399 MADAWASKA
STRINGERS RATING

DEAD LOADS ON STRINGERS FOR MERLIN-DASH INPUT

• EXTERIOR STRINGERS I-15" x 42.9"

DECK: 5" STEEL GRID, $w = 18 \text{ psf}$ (REF. 1980 RATING)

$$= (18 \text{ psf}) \left(\frac{2'-7"}{2} + \left(\frac{21.67 \text{ ft}}{2} - 4(2'-7") \right) \right) = 32.28 \text{ plf} = 0.032 \text{ klf}$$

RAILING: SEE TRUSS LOAD CALCS p.25

$$= \frac{0.79 \text{ k}}{19.54 \text{ ft}} = 0.040 \text{ klf}$$

• INTERIOR STRINGERS I-15" x 42.9"

DECK:

$$= (18 \text{ psf}) (2'-7") = 46.5 \text{ plf} = 0.047 \text{ klf}$$



PARSONS BRINCKERHOFF COMPUTATION SHEET

62

Page 4 of Made by B. HOLSAPPLEDate 3/13/2012Checked by RGNDate 4/12Subject MAINE NORTH TRUSSES - 2399 MADAWASKA
STRINGERS RATING

IMPACT AND DISTRIBUTION FACTOR SUMMARY - FOR MERLIN- DASH INPUT

• IMPACT FACTOR = 33% STRENGTH + SERVICE
15% FATIGUE

• LIVE LOAD DISTRIBUTION FACTORS FOR INTERIOR STRINGERS

MOMENT: 0.258

SHEAR: 0.6

• LIVE LOAD DISTRIBUTION FACTORS FOR EXTERIOR STRINGERS

MOMENT: 0.145

SHEAR: 0.145

STLRFD INPUT

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17



STLRFD Input

Madawaska Stringer STLRFD Input

Stringer

References: AASHTO LRFD 2014 (2016 Int.)
AASHTO MBE 2011 (2016 Int.)
STLRFD User Manual 2.4.0.0
CHBDC S6-14

CTL Control Command

System of Units:		default = US
Design/Analysis:	A	Analysis
Type of Beam:	PG	Plate Girder
Exterior/Interior:	I	Interior
Number of Beams:	9	(Not Including 3 Sidewalk Stringers)
Number of Spans:	1	
Symmetry:	N	
Deck Pour Symmetry:	N	
ADTT for Single Lane:	168	(Per 2012 Load Rating, not significant because only for fatigue)
Mult Pres Adj Factor:		default = 1.0
Live Load:	B	
Dynamic Load Allow:		Adjusted based on the applied LL (see Additional Factors for rating Stringers)
Fat Dyn Load Allow:		
PA Traffic Factor:		
Redist Neg Mom:		default
Importance Factor:		default
Ductility Factor:		default
Redund Factor:		default
Redund Load Path:		default
Output Points:		default
P-82 Dynamic Load Allow:		default
Skew Angle Desig:		default = P

GEO Geometry

Beam/Stringer Spacing:	2.583 ft	
Deck Overhang:		not required for interior girder
Staggered Diaphragms:		default = N
No Design Lanes:	2	
Deflect Dist Fact:		
No Des Ln w/ Sidewalk:		
Def Dist Fac w/ Side:		

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17



STLRFD Input

Madawaska Stringer STLRFD Input

Stringer

References: AASHTO LRFD 2014 (2016 Int.)

AASHTO MBE 2011 (2016 Int.)

STLRFD User Manual 2.4.0.0

CHBDC S6-14

CDF COMMAND NOT USED

CDF **Computed Distribution Factor**

UDF **User Defined Distribution Factor**

Distribution factors per 2012 Load Rating.

Span Number:	1
Dist Factor Type:	D
Moment DF1:	0.258
Moment DF2:	0.258
Shear DF1:	0.600
Shear DF2:	0.600
Span Number:	1
Dist Factor Type:	F
Moment DF1:	0.000
Moment DF2:	0.000
Shear DF1:	0.000
Shear DF2:	0.000
Span Number:	
Dist Factor Type:	
Moment DF1:	
Moment DF2:	
Shear DF1:	
Shear DF2:	

URF **User Defined Reaction Distribution Factor**

Support Number:	1	2				
Dist Factor Type:	D	D				
Reaction DF:	0.6	0.6				
Support Number:	1	2				
Dist Factor Type:	F	F				
Reaction DF:	0	0				
Support Number:						
Dist Factor Type:						
Reaction DF:						

SKW **Skew Angle**

Support Number:	1	2				
Skew Angle:	90.00°	90.00°				
Apply Skew Corr Fact:	N	N				

SPL **Span Length**

Span Number:	1				
Span Length:	19.542 ft				

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

STLRFD Input

Madawaska Stringer STLRFD Input

Stringer

References: AASHTO LRFD 2014 (2016 Int.)
AASHTO MBE 2011 (2016 Int.)
STLRFD User Manual 2.4.0.0
CHBDC S6-14

MAT Material

Yield strength of steel is based on AASHTO MBE Table 6A.6.2.1-1 for year built of 1921 (per 2012 load rating).

Material ID Number:	1
Composite:	N
Web Yield Strength:	30 ksi
Top Flng Yld Strength:	30 ksi
Bot Flng Yld Strength:	30 ksi
Classification Stg of Weld:	default = 70 ksi
Rolled Beam Tensile Strength:	
Top Flng Tensile Strength:	
Bot Flng Tensile Strength:	

DRB Design Rolled Beam

DRB COMMAND NOT USED

DP1 Design Plate Girder (Part 1)

DP1 COMMAND NOT USED

URB User Defined Rolled Beam

URB COMMAND NOT USED

ARB Analysis Rolled Beam

ARB COMMAND NOT USED

APL Analysis Plate

Start Span Number:	1						
Start Distance:	0.0 ft						
End Span Number:	1						
End Distance:	19.542 ft						
Material ID Number:	1						
Web Depth Variation:	C						
Web Depth:	13.756 in						
Web Thickness:	0.41 in						
Top Plate Width:	5.5 in						
Top Plate Thickness:	0.622 in						
Bot Plate Width:	5.5 in						
Bot Plate Thickness:	0.622 in						
Haunch Depth:							
Deck Reinf Area:							
Deck Reinf CG Dist:							

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

STLRFD Input

Madawaska Stringer STLRFD Input

Stringer

References: AASHTO LRFD 2014 (2016 Int.)
AASHTO MBE 2011 (2016 Int.)
STLRFD User Manual 2.4.0.0
CHBDC S6-14

SLS **Section Loss**

See Stringer Section Loss Calculations.

SLB **Slab**

STLRFD requires a concrete slab be input. Since the actual deck is non-composite steel grid, density = 0.
The steel grid deck dead load is input in the distributed load command.

Actual Slab Thickness:	5.0 in	
Effective Slab Thick:	5.0 in	
Concrete Strength:	4 ksi	
Concrete Density for Loads:	0 pcf	
Concrete Density for E _c :		default = 145 pcf
Deck Reinf Strength:		default = 60 ksi
Steel Elastic Modulus:		default = 29,000 ksi
Slab Trans Bar Size:		
Dev Len Factor Slabs:		default = 1

DPS **Deck Pour Sequence**

DPS COMMAND NOT USED

PLD **Pedestrian Live Load**

PLD COMMAND NOT USED

LDF **Load Factor**

LDF COMMAND NOT USED

DLD **Distributed Load**

DC1 (non-composite dead loads not part of the girder; SIPs, haunch, etc.):

	Deck	
Steel Grid Weight:	18 psf	(from 2012 Rating that references 1980 rating)
Stringer Spacing:	2.583 ft	
Linear Weight:	0.047 k/ft	

Load Type:	DC1				
Start Span Number:	1				
Start Distance:	0.0 ft				
End Span Number:	1				
End Distance:	19.542 ft				
Start Magnitude:	0.047 k/ft				
End Magnitude:	0.047 k/ft				

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17



STLRFD Input

Madawaska Stringer STLRFD Input

Stringer

References: AASHTO LRFD 2014 (2016 Int.)

AASHTO MBE 2011 (2016 Int.)

STLRFD User Manual 2.4.0.0

CHBDC S6-14

WUD COMMAND NOT USED

WUD **Wind User Defined**

FTL **Fatigue Life**

FTG **Fatigue**

FTG COMMAND NOT USED

BRP **Brace Point**

Per the 2012 Load Rating, the stringer is laterally braced at the midpoint and endpoints.

Start Span Number:	1			
Start Span Distance:	0.0 ft			
End Span Number:	1			
End Span Distance:	19.542 ft			
Brace Spacing:	9.77 ft			

BST **Bearing Stiffener**

BST COMMAND NOT USED

STRINGER SECTION PROPERTIES & LOSSES

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

Stringer Section Loss Calculations

The section losses that are analyzed are broken down into four (4) categories: critical, severe, moderate, and minor. Section losses near the beam ends that affect shear are assumed to extend from the end of the stringer to 1 foot from the end of the stringer. The section losses away from the beam ends that affect flexure are assumed to run from 1 foot away from the end of the stringer to 1 foot away from the end of the stringer at the other end.

The beginning of each section loss input command in STLRFD begins with the following 4 parameters: Start Span, Start Loss Distance, End Span Number, and End Loss Distance. These parameters are filled out below for both a shear section loss location and a flexure section loss location. (There is one specific area in the critical shear section loss that only extends 3.25" from the end of the stringer - see the 2017 inspection sketches).

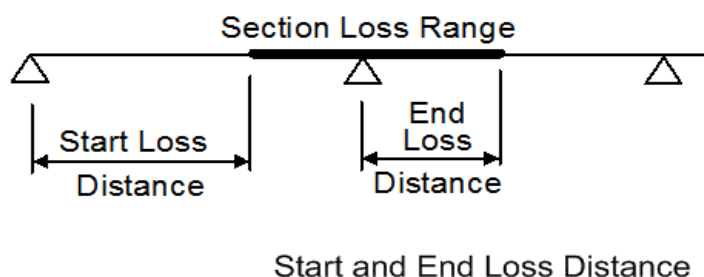
Shear

Start Span:	1
Start Loss Distance:	0.00 ft
End Span Number:	1
End Loss Distance:	1.00 ft

Flexure

Start Span:	1
Start Loss Distance:	1.00 ft
End Span Number:	1
End Loss Distance:	18.54 ft

The next 5 parameters are: Section Loss Element, Location, Distance, Width, and Thickness. See the sketches below for information on these dimensions.



Note that the "Distance" parameter is measured from the CL of web to the CL of section loss for plates and from the bottom of web to the CL of section loss for the webs.

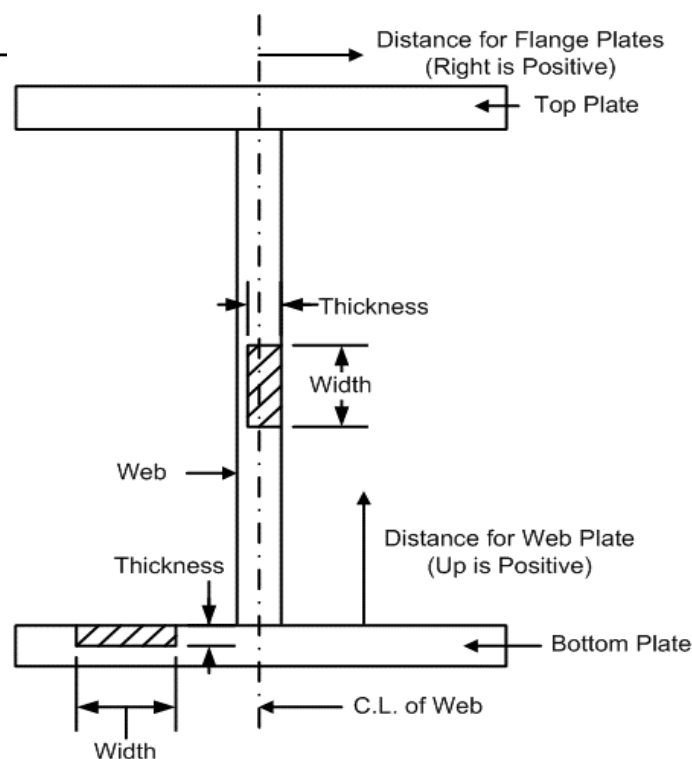
Section Loss Element Key:

BP = Bottom Plate
W = Web
TP = Top Plate

Location Key

B = Bottom
T = Top
L = Left Side
R = Right Side

For section losses that are tapered, the average loss is taken across the width of the section loss.



Section Loss for a Plate Girder

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

Stringer Section Loss Calculations

Section Properties

Flange Width = 5.5 in
Flange Thickness = 0.622 in

Web Depth = 13.756 in
Web Thickness = 0.41 in

Critical Shear (Span 1 East Face of Stringer S5 at South Side of Floorbeam FB1N)

The sketch below shows the assumed section losses for the critical shear STLRFD runs.

Left Top Flange Loss Width = 1.25 in
Left Top Flange Loss Thk = 0.622 in

Right Top Flange Loss Width = 1.25 in
Right Top Flange Loss Thk = 0.622 in

Left Top Flange Taper Rem 1 =
Left Top Flange Taper Rem 2 =

Right Top Flange Taper Rem 1 =
Right Top Flange Taper Rem 2 =

Left Bot Flange Loss Width =
Left Bot Flange Loss Thk =

Right Bot Flange Loss Width = 1.25 in
Right Bot Flange Loss Thk = 0.622 in

Left Bot Flange Taper Rem 1 =
Left Bot Flange Taper Rem 2 =

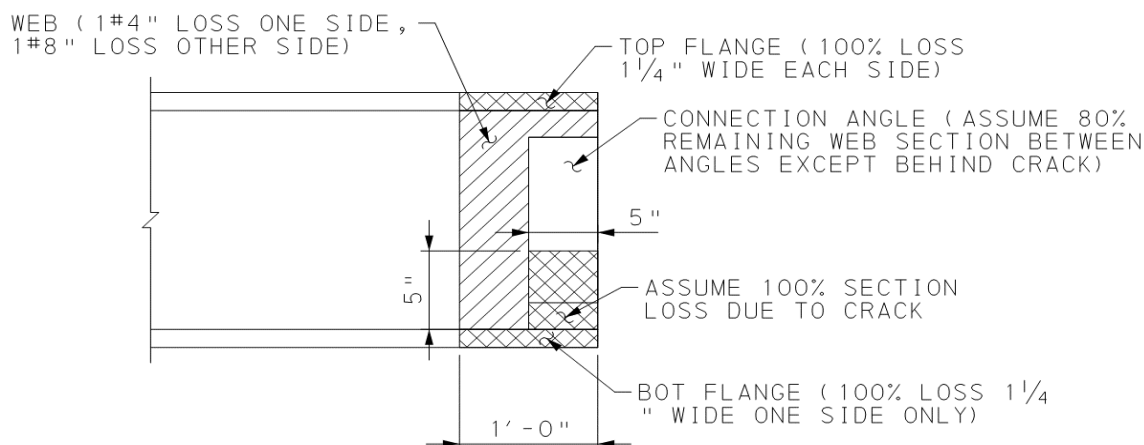
Right Bot Flange Taper Rem 1 =
Right Bot Flange Taper Rem 2 =

Left Web Loss Width = 13.756 in
Left Web Loss Thk = 0.125 in

Right Web Loss Width = 13.756 in
Right Web Loss Thk = 0.250 in

"Length" below is measured from start of section loss to end of section loss in reference to the end of the stringer.

Length =	0 to 1'	0" to 5"	0" to 5"	0" to 5"	5" to 1'	0 to 1'	0 to 1'	0" to 5"	0" to 5"	5" to 1'
SL Elem:	TP	W	W	W	W	TP	BP	W	W	W
Location:	B	L	L	L	L	B	T	R	R	R
Distance:	-2.125 in	8.378 in	2.50 in	12.756 in	6.878 in	2.125 in	2.125 in	8.378 in	12.756 in	6.878 in
Width:	1.250 in	6.76 in	5.00 in	2.00 in	13.756 in	1.250 in	1.250 in	6.76 in	2.00 in	13.756 in
Thk:	0.622 in	0.041 in	0.410 in	0.125 in	0.125 in	0.622 in	0.622 in	0.041 in	0.250 in	0.250 in



For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17



Stringer Section Loss Calculations

Critical Moment (Span 1 Stringer S5 at 6'-8" from Floorbeam FB3N btwn Floorbeams FB2N & FB3N)

Left Top Flange Loss Width = 1.50 in
Left Top Flange Loss Thk = 0.622 in

Right Top Flange Loss Width = 1.00 in
Right Top Flange Loss Thk = 0.622 in

Left Top Flange Taper Rem 1 = 0.06 in
Left Top Flange Taper Rem 2 = 0.25 in

Right Top Flange Taper Rem 1 = 0.06 in
Right Top Flange Taper Rem 2 = 0.313 in

Left Bot Flange Loss Width =
Left Bot Flange Loss Thk =

Right Bot Flange Loss Width =
Right Bot Flange Loss Thk =

Left Bot Flange Taper Rem 1 = 0.31 in
Left Bot Flange Taper Rem 2 = 0.622 in

Right Bot Flange Taper Rem 1 = 0.31 in
Right Bot Flange Taper Rem 2 = 0.625 in

Left Web Loss Width =
Left Web Loss Thk =

Right Web Loss Width =
Right Web Loss Thk =

SL Elem:	TP	TP		BP		TP	TP		BP	
Location:	B	B		T		B	B		T	
Distance:	-2.000 in	-0.728 in		-1.478 in		2.250 in	0.978 in		1.478 in	
Width:	1.500 in	1.045 in		2.545 in		1.000 in	1.545 in		2.545 in	
Thk:	0.622 in	0.466 in		0.155 in		0.622 in	0.435 in		0.153 in	

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

Stringer Section Loss Calculations

Severe Shear & Moment (Span 1 Stringer S8 btwn Floorbeams FB2S & FB3S)

The sketch below shows the assumed section losses for the severe STLRFD runs.

Left Top Flange Loss Width = 1.00 in
Left Top Flange Loss Thk = 0.622 in

Right Top Flange Loss Width = 1.00 in
Right Top Flange Loss Thk = 0.622 in

Left Top Flange Taper Rem 1 =
Left Top Flange Taper Rem 2 =

Right Top Flange Taper Rem 1 =
Right Top Flange Taper Rem 2 =

Left Bot Flange Loss Width =
Left Bot Flange Loss Thk =

Right Bot Flange Loss Width =
Right Bot Flange Loss Thk =

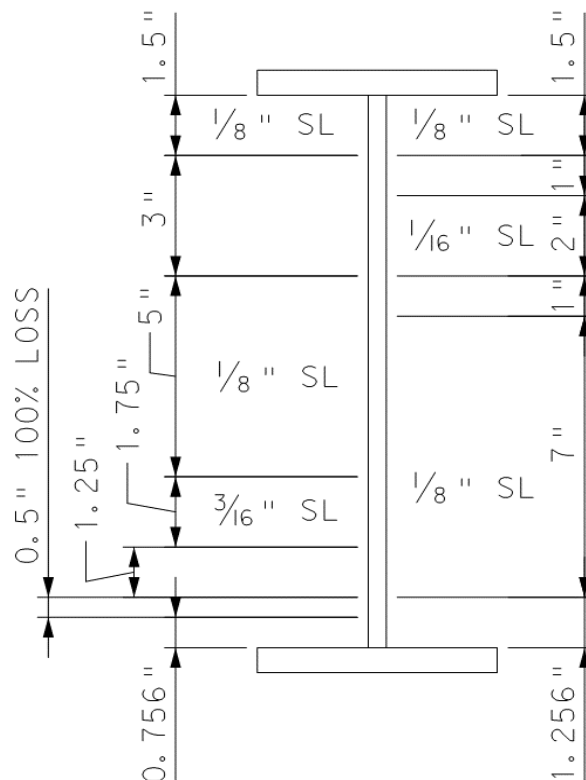
Left Bot Flange Taper Rem 1 =
Left Bot Flange Taper Rem 2 =

Right Bot Flange Taper Rem 1 =
Right Bot Flange Taper Rem 2 =

Left Web Loss Width =
Left Web Loss Thk =

Right Web Loss Width =
Right Web Loss Thk =

SL Elem:	TP	W	W	W	W	TP	W	W	W	
Location:	B	L	L	L	L	B	R	R	R	
Distance:	-2.250 in	1.006 in	13.006 in	6.756 in	3.381 in	2.250 in	13.006 in	10.256 in	4.756 in	
Width:	1.000 in	0.500 in	1.500 in	5.000 in	1.750 in	1.000 in	1.500 in	2.000 in	7.000 in	
Thk:	0.622 in	0.410 in	0.125 in	0.125 in	0.1875 in	0.622 in	0.1250 in	0.0625 in	0.1250 in	



For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

Stringer Section Loss Calculations

Moderate Shear (Span 1 Stringer S8 btwn FB0S & FB1S)

Left Top Flange Loss Width = 2.55 in
Left Top Flange Loss Thk = 0.622 in

Right Top Flange Loss Width = 0.25 in
Right Top Flange Loss Thk = 0.622 in

Left Top Flange Taper Rem 1 =
Left Top Flange Taper Rem 2 =

Right Top Flange Taper Rem 1 =
Right Top Flange Taper Rem 2 =

Left Bot Flange Loss Width = 1.25 in
Left Bot Flange Loss Thk = 0.622 in

Right Bot Flange Loss Width =
Right Bot Flange Loss Thk =

Left Bot Flange Taper Rem 1 =
Left Bot Flange Taper Rem 2 =

Right Bot Flange Taper Rem 1 =
Right Bot Flange Taper Rem 2 =

Left Web Loss Width = 13.756 in
Left Web Loss Thk = 0.125 in

Right Web Loss Width = 13.756 in
Right Web Loss Thk = 0.031 in

SL Elem:	TP		BP		W	TP				W
Location:	B		T		L	B				R
Distance:	-1.478 in		-2.125 in		6.878 in	2.625 in				6.878 in
Width:	2.545 in		1.250 in		13.756 in	0.250 in				13.756 in
Thk:	0.622 in		0.622 in		0.125 in	0.622 in				0.031 in

Moderate Moment (Span 2 Stringer S4 btwn FB0S & FB1S)

Left Top Flange Loss Width =
Left Top Flange Loss Thk =

Right Top Flange Loss Width =
Right Top Flange Loss Thk =

Left Top Flange Taper Rem 1 = 0.31 in
Left Top Flange Taper Rem 2 = 0.63 in

Right Top Flange Taper Rem 1 = 0.31 in
Right Top Flange Taper Rem 2 = 0.625 in

Left Bot Flange Loss Width =
Left Bot Flange Loss Thk =

Right Bot Flange Loss Width =
Right Bot Flange Loss Thk =

Left Bot Flange Taper Rem 1 = 0.38 in
Left Bot Flange Taper Rem 2 = 0.750 in

Right Bot Flange Taper Rem 1 = 0.38 in
Right Bot Flange Taper Rem 2 = 0.500 in

Left Web Loss Width = 2.000 in
Left Web Loss Thk = 0.063 in

Right Web Loss Width = 2.000 in
Right Web Loss Thk = 0.125 in

SL Elem:		TP		BP	W		TP		BP	W
Location:		B		T	L		B		T	R
Distance:		-1.478 in		-1.478 in	1.000 in		1.478 in		1.478 in	1.000 in
Width:		2.545 in		2.545 in	2.000 in		2.545 in		2.545 in	2.000 in
Thk:		0.153 in		0.060 in	0.063 in		0.153 in		0.185 in	0.125 in

↑

(location assumed, inspection report does not dimension)

SL Elem:	W
Location:	R
Distance:	6.878 in
Width:	6.000 in
Thk:	0.031 in

(additional web loss, 6" high, assumed at middle of web, inspection report does not dimension)

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17



Stringer Section Loss Calculations

Minor Shear & Moment (Span 4 Stringer S2 btwn FB1S & FB2S) (for full length of stringer)

Left Top Flange Loss Width = 5.50 in
Left Top Flange Loss Thk = 0.031 in

Right Top Flange Loss Width =
Right Top Flange Loss Thk =

Left Top Flange Taper Rem 1 =
Left Top Flange Taper Rem 2 =

Right Top Flange Taper Rem 1 =
Right Top Flange Taper Rem 2 =

Left Bot Flange Loss Width = 5.50 in
Left Bot Flange Loss Thk = 0.031 in

Right Bot Flange Loss Width =
Right Bot Flange Loss Thk =

Left Bot Flange Taper Rem 1 =
Left Bot Flange Taper Rem 2 =

Right Bot Flange Taper Rem 1 =
Right Bot Flange Taper Rem 2 =

Left Web Loss Width = 10.000 in
Left Web Loss Thk = 0.031 in

Right Web Loss Width = 6.000 in
Right Web Loss Thk = 0.031 in

SL Elem:	TP		BP		W					W
Location:	T		B		L					R
Distance:	0.000 in		0.000 in		6.878 in					6.878 in
Width:	5.500 in		5.500 in		10.000 in					6.000 in
Thk:	0.031 in		0.031 in		0.031 in					0.031 in

ADDITIONAL FACTORS

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

Additional Factors for Rating Stringers (STLRFD Input)

HL-93 Runs

Condition Factor = **0.9** MBE Table 6A.4.2.3-1 (2017 Inspection Structural Condition of Poor = 0.85)
Per C6a.4.2.3, increase by 0.05 because section losses were field measured

System Factor = **1.0** Table 6A.4.2.4-1 (For Redundant Stringer Subsystems between Floorbeams)

Live Load Factors = **1.75** Strength I Inventory - Table 6A.4.2.2-1
1.35 Strength I Operating - Table 6A.4.2.2-1

Final LL Factors For STLRFD = **1.95** Inventory
1.50 Operating

The HL-93 tandem controlled over the HL-93 truck by inspection because of the increased axle loads located within the ~20 foot stringer span.

CL-625-ONT Runs

Note that STLRFD has an input under the "CTL" command for dynamic load allowance. The CL-625-ONT Truck (without the lane load) has a 1.25 dynamic load allowance factor per CHBDC 3.8.4.5.3(d). The truck with the lane load does not have a dynamic load allowance factor per CHBDC 3.8.4.5.1 (input as 1.00).

Condition Factor = **0.9** MBE Table 6A.4.2.3-1 (Poor = 0.85)
Per C6a.4.2.3, increase by 0.05 because section losses were field measured

System Factor = **1.0** Table 6A.4.2.4-1 (For Redundant Stringer Subsystems between Floorbeams)

Multiple Presence Factor = **0.9** CHBDC 3.8.4.2.1 Table 3.6 (2 lanes)

Live Load Factors **1.63** Per AASHTO LRFD C6A.1.3, Target Reliability Index, $\beta = 3.50$ (Inventory)
(CHBDC 14.13.3.1 Table 14.8) **1.35** Per AASHTO LRFD C6A.1.3, Target Reliability Index, $\beta = 2.50$ (Operating)

Final LL Factors For STLRFD = **1.63** CL-625-ONT Truck - Inventory
1.35 CL-625-ONT Truck - Operating
1.63 CL-625-ONT Lane Load - Inventory
1.35 CL-625-ONT Lane Load - Operating

MaineDOT Legal Loads

Condition Factor = **0.9** MBE Table 6A.4.2.3-1 (Poor = 0.85)
Per C6a.4.2.3, increase by 0.05 because section losses were field measured

System Factor = **1.0** Table 6A.4.2.4-1 (For Redundant Stringer Subsystems between Floorbeams)

Live Load Factors = **1.30** Strength I - Table 6A.4.2.2-1 & Table 6A.4.4.2.3a-1 (ADTT<1000)
See 2013 Interims for updated Table 6A.4.4.2.3a-1

To simplify the input, the product of the above factors will be used as the live load factors in STLRFD.

Final LL Factors For STLRFD = **1.45** Strength I

For	Madawaska Bridge Load Rating	Job No.	63738	Sheet No.	
Made by	SMZ	Checked by	EMG	Backchecked by	SMZ
Date	9/22/17	Date	9/29/17	Date	9/29/17

Live Load Unit Conversion

The CHBDC trucks are converted to english units for STLRFD input.

1 kilonewton =	0.225 k
1 meter =	3.28 ft

CL-625-ONT Truck				
Axle No.	Axle Load (kN)	Axle Spa (m)	Axle Load (kip)	Axle Spa (ft)
1	50	3.6	11.240	11.81
2	140	1.2	31.473	3.94
3	140	6.6	31.473	21.65
4	175	6.6	39.342	21.65
5	120	---	26.977	---
Total			140.506	

CL-625-ONT Lane Load				
Axle No.	Axle Load (kN)	Axle Spa (m)	Axle Load (kip)	Axle Spa (ft)
1	40	3.6	8.992	11.81
2	112	1.2	25.179	3.94
3	112	6.6	25.179	21.65
4	140	6.6	31.473	21.65
5	96	---	21.582	---

Lane Load =	9 kN/m
Lane Load =	0.617 kpf

A3.4.1 General

In Ontario, the CL-625-ONT Truck shown in [Figure A3.4.1](#) and the CL-625-ONT Lane Load shown in [Figure A3.4.2](#) shall be used instead of the CL-625 Truck and CL-W Lane Load, respectively.

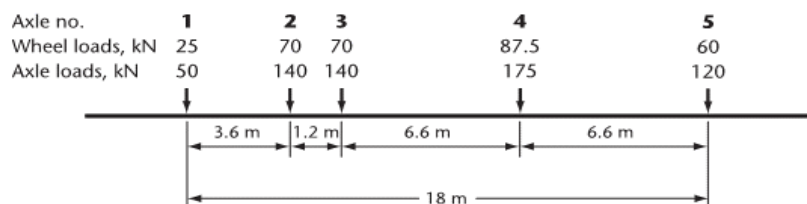


Figure A3.4.1
CL-625-ONT Truck
(See [Clause A3.4.1.](#))

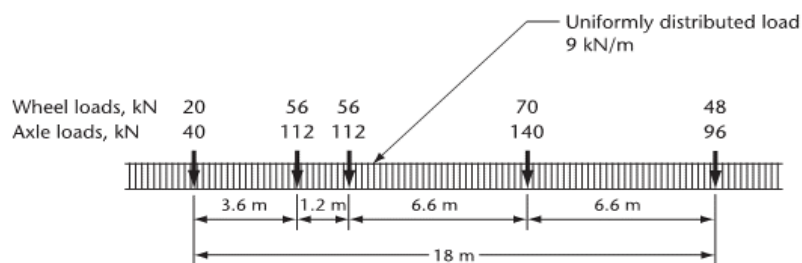


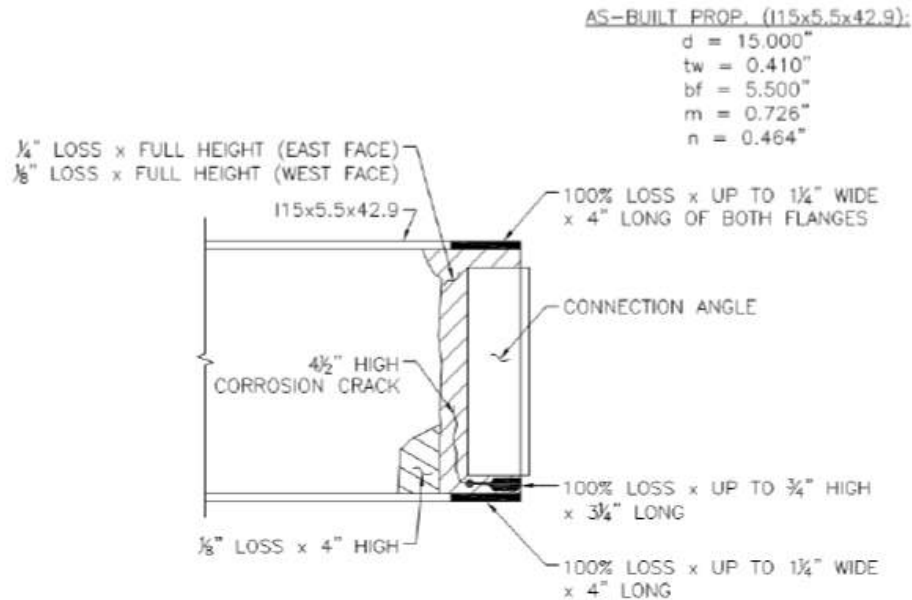
Figure A3.4.2
CL-625-ONT Lane load
(See [Clause A3.4.1.](#))

SECTION LOSS SKETCHES (FROM 2017 HNTB INSPECTION)

STRINGER SECTIONS USED FOR LOAD RATING:

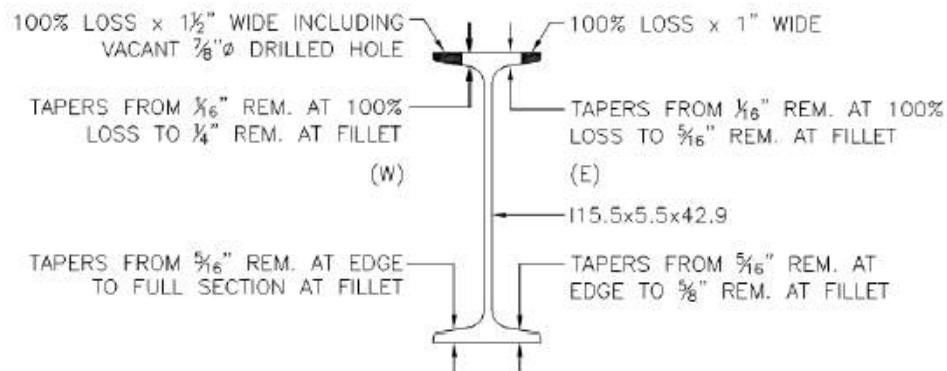
Taken from HNTB 2017 Routine and Fracture Critical Inspection

4 conditions considered: critical, severe, moderate and minor



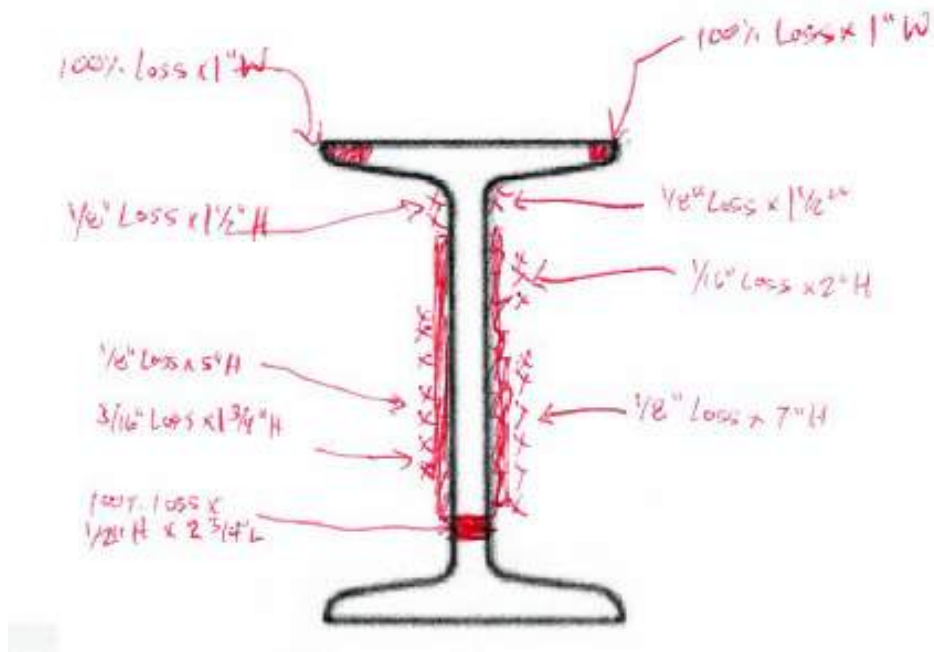
SPAN 1, EAST FACE OF STRINGER S5 AT SOUTH SIDE OF FLOORBEAM FB1N

(Critical condition for shear)



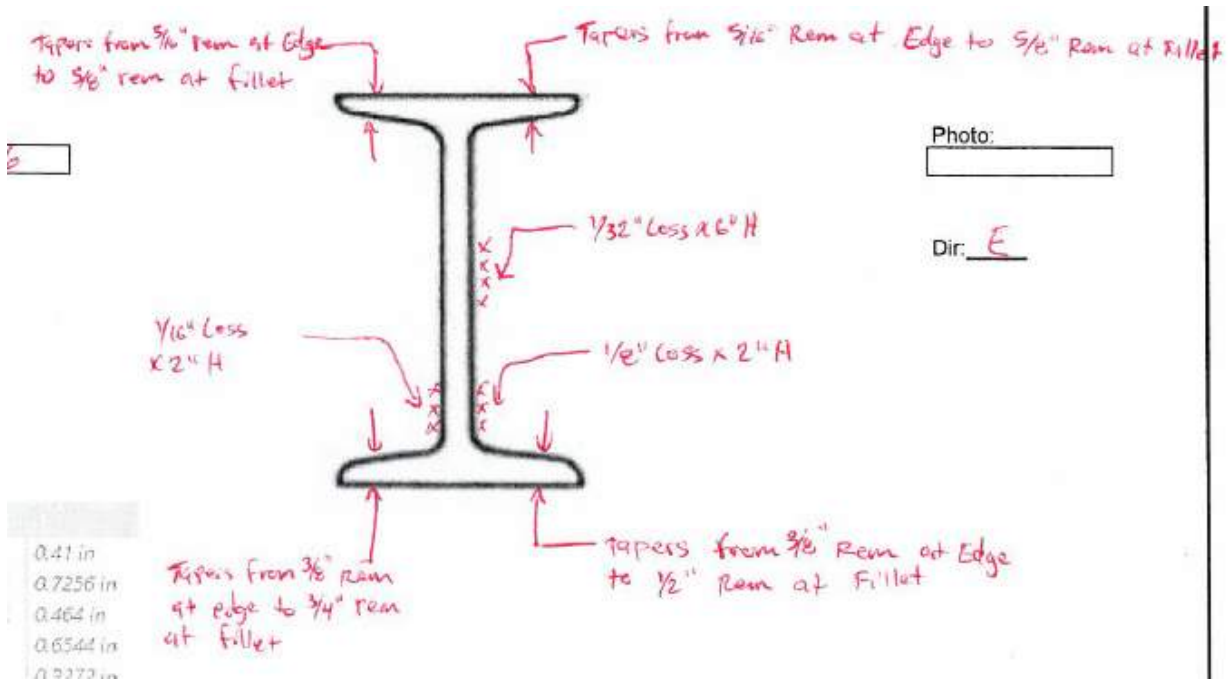
SPAN 1, STRINGER S5 AT 6'-8" FROM FLOORBEAM FB3N BTWN FLOORBEAMS FB2N & FB3N

(Critical condition for moment)



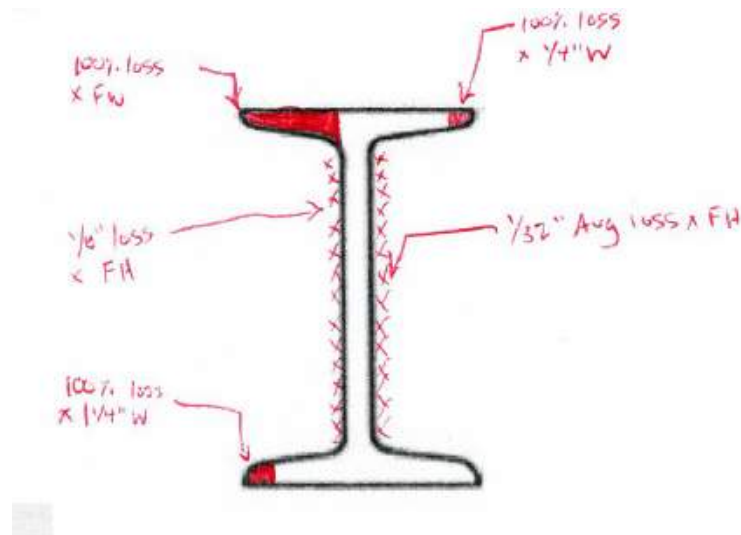
SPAN 1, STRINGER S8 AT FLOORBEAM FB3S BTWN FLOORBEAMS FB2S & FB3S

(Severe condition for shear and moment)

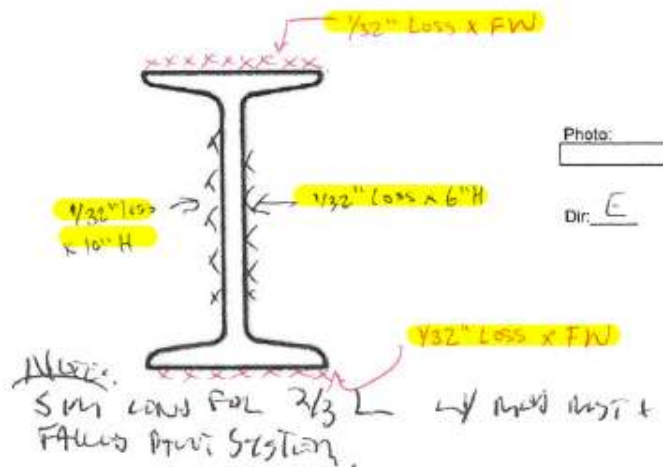


SPAN 2, STRINGER S4 AT MIDSPAN BTWN FLOORBEAMS FB0S & FB1S

(Moderate condition for moment)



SPAN 1, STRINGER S8 AT FB0S BTWN FLOORBEAMS FB0S & FB1S
(Moderate condition for shear)



SPAN 4, STRINGER S2 AT FB1S BTWN FLOORBEAMS FB1S & FB2S
(Minor condition for shear and moment)

STLRFD WARNINGS/FAILURES

STLRFD Warnings/Failures:

Below is a summary of the warnings/failures from the STLRFD output that are not relevant to the outcome of the load rating. STLRFD notifies the user of input values that are outside parameters of the current standards, but does not override the input values.

GEO – Geometry

Warning: STLRFD does not allow beam/stringer spacing to be less than 3 feet.

Response: The stringer spacing is 2'-7" and should be analyzed as such.

APL – Analyze Plate

Warning: The values entered for plate dimensions are not within STLRFD's applicable range.

Response: The plate dimensions are accurately entered and should be analyzed as such.

Yield Strength Warning

Warning: The web yield strength should be greater than 36ksi or 70% flange yield strength.

Response: Yield strengths are entered based on 2012 PB load rating.

CRITICAL SECTION LOSS LOAD RATINGS

CRITICAL SECTION LOSS HL-93 (TANDEM) INVENTORY RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Critical Stringer HL-93 Inv
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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```

Madawaska Critical Stringer HL-93 Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Critical Stringer HL-93 Inv

! ** Created by EngAsst **

! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]

! ** Data Records Start Here **

CFG 58,0

TTL Madawaska Critical Stringer HL-93 Inv

TTL

TTL MADE BY: SMZ DATE: 09/22/17

TTL

TTL CHECKED BY: EMG DATE: 09/29/17

TTL

TTL BACKCHECKED BY: SMZ DATE: 09/29/17

TTL

CTL ,A,PG,I,9,1,N,N,168,,E

GEO 2.583,,,2

UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0

URF 1,D,0.6,1,F,0

URF 2,D,0.6,2,F,0

SKW 1,90,N,2,90,N

SPL 1,19.5416666666667

MAT 1,N,30,30,30

APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622

SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622

SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25

SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41

SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041

SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575

SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475

SLB 5,5,4,0

LDF SLL,1.95,0,0,0,0,0,0,0,0,0,0,0,0,0,0

DLD DC1,1,0,1,19.5416666666667,0.047,0.047

SLL 1,N,0.64,0

SAL 1,25,4,25,0

BRP 1,0,1,19.5417,9.77

OIN 1,1,1

OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1

OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0

ORF 1,1,1,1

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

 Madawaska Critical Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE   * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.95
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

Madawaska Critical Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.64 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	25 kip
AXLE SPACING	4 ft
AXLE LOAD	25 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1

 Madawaska Critical Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: OAN (cont.)
    FACTORED REACTIONS              0
    SUMMARY-OVERALL REACTIONS      1

COMMAND: OSC
    DUCTILITY AND PROPORTIONS      0
    WIND EFFECTS                   0
    FLEXURAL CAPACITY              1
    SHEAR CAPACITY                 1
    WEB CHECKS                     0
    STIFFENER CHECKS               0
    FATIGUE CHECKS                 0
    FATIGUE LIFE ESTIMATION        0
    DEFLECTION CHECKS              0
    SHEAR CONNECTOR CHECKS        0
    STAGING / UNCURED CHECKS      0
    WELD CAPACITY                  0
    ECONOMIC FEASIBILITY           0
    NEG MOM SERVICEABILITY         0
    SPLRFD INFORMATION             0

COMMAND: ORF
    VEHICLE RATING SUMMARY         1
    DETAILED RATING FACTORS        1
    OVERALL RATING SUMMARY         1
    RATINGS W/O FWS                1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT      490. lbf/ft^3  (default)
CONSTRUCT. MODULAR RATIO *      (computed, if necessary)
INC. FLG. IN HAUNCH WGT.   Y      (default)
AASHTO/PENNDOT SPECS      P      (default)
PRINT DIMENSION FILE      N      (default)
    
```

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

 Madawaska Critical Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 Madawaska Critical Stringer HL-93 Inv
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	F l a n g e Bottom Fy (ksi)	P l a t e Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000

Madawaska Critical Stringer HL-93 Inv

INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 2 of 2 (cont.)

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in ² /ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
				Web	Right	8.378	6.760	0.0410
1	0.417	1	1.000	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft ³)	Density Ec (lb/ft ³)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

 Madawaska Critical Stringer HL-93 Inv
 INPUT (cont.)

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.950	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

Madawaska Critical Stringer HL-93 Inv
INPUT (cont.)

SYSTEM SETTINGS

Steel	Construction
Weight	Modular Ratio
(lbf/ft ³)	
490.00	11.000

Madawaska Critical Stringer HL-93 Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer HL-93 Inv

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment M _p (k-ft)	Depth of Web, D _{cp} (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer HL-93 InvSECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer HL-93 Inv
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.95	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Critical Stringer HL-93 Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

Madawaska Critical Stringer HL-93 Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer HL-93 Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer HL-93 Inv
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer HL-93 Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	6.9	38.56	0.0	0.00
1	0.417R	6.9	38.56	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.000L	16.1	37.14	0.0	0.00
1	1.000R	16.1	37.14	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00
1	17.588	29.6	-34.83	0.0	0.00
1	18.515L	16.5	-37.08	0.0	0.00
1	18.515R	16.5	-37.08	0.0	0.00

Madawaska Critical Stringer HL-93 InvANALYSIS (cont.)
-----SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	16.1	-37.14	0.0	0.00
1	18.542R	16.1	-37.14	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.417L	38.56	6.9	-0.43	3.5	0.022
1	0.417R	38.56	6.9	-0.43	3.5	0.022
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.000L	37.15	16.0	-1.03	8.2	0.052
1	1.000R	37.15	16.0	-1.03	8.2	0.052
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.515L	1.06	8.4	-37.09	16.4	0.053
1	18.515R	1.06	8.4	-37.09	16.4	0.053
1	18.542L	1.03	8.2	-37.15	16.0	0.052
1	18.542R	1.03	8.2	-37.15	16.0	0.052
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

 Madawaska Critical Stringer HL-93 Inv
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

 SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

 SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
		BOT	SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	4.885	TOP	SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	5.863	TOP	SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
		BOT	SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
1	6.840	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
		BOT	STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
		BOT	SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
		BOT	SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	78.25	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	13.9	76.24	N/A*	-5.23	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	13.9	76.24	4.55	-6.15	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	31.6	73.54	10.33	-13.96	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	32.3	73.43	10.56	-14.26	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	32.3	73.43	9.45	-14.38	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	59.6	68.86	17.42	-26.51	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	83.9	64.22	24.52	-37.30	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	104.5	59.62	30.54	-46.46	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	121.4	55.05	35.49	-53.98	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	134.6	50.52	39.35	-59.86	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	144.2	46.03	42.14	-64.11	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	150.0	41.57	43.86	-66.71	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	152.2	37.15	44.49	-67.68	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	150.7	32.77	44.05	-67.01	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	150.7	32.77	44.05	-67.01	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	152.2	-37.15	44.49	-67.68	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	150.0	-41.57	43.86	-66.71	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	144.2	-46.03	42.14	-64.11	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	134.6	-50.52	39.35	-59.86	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	121.4	-55.05	35.49	-53.98	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	104.5	-59.62	30.54	-46.46	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	83.9	-64.22	24.52	-37.30	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	59.6	-68.86	17.42	-26.51	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	33.2	-73.30	9.70	-14.75	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	33.2	-73.30	7.65	-11.17	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	32.3	-73.43	7.46	-10.89	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	32.3	-73.43	N/A*	-6.57	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	31.6	-73.54	N/A*	-6.43	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-78.25	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer HL-93 Inv
 SPECIAL #1 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer HL-93 Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	13.9	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	32.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	31.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. Dp <= 0.1*Dt, Mn calculated using A6.10.7.1.2-1

B. Dp > 0.1*Dt, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-6.2	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	4.6	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-14.0	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	10.3	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-14.3	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	10.6	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-14.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	9.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-26.5	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.3	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-46.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	30.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-54.0	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	35.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-59.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	39.4	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-64.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	42.1	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-66.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	43.9	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-67.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	44.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-67.0	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	44.1	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-67.0	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	44.1	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-67.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	44.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-66.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	43.9	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-64.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	42.1	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-59.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	39.4	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-54.0	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	35.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-46.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	30.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.3	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-26.5	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-14.7	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	9.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-11.2	D	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	7.7	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-10.9	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	7.5	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

*** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.220	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.220	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.220	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.220	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A		Factored Effects	Code			
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk		
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	*	Local Mr (kip-ft)	* Mr (kip-ft)	Governing	*	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	0.000	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	0.417L	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Effects		Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	Governing Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	Stress F+ (ksi)	Lateral Moment M+ (kip-ft)	
1	0.417R	TOP	STR-I	P	-10.9	C	25.	-10.9	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	0.977	TOP	STR-I	P	-10.9	C	25.	-10.9	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	1.000L	TOP	STR-I	P	-10.9	C	25.	-10.9	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	1.000R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	1.954	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	2.931	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	3.908	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Effects Stress F+***	Lateral Moment M+***	Code Chk ***
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	* C	Fr (ksi)	* C	Local Mr (kip-ft)	* C	Governing Mr (kip-ft)	* C			
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Mr (kip-ft)	*	Flexural+Lateral Stress F+** (ksi)	Moment M+** (kip-ft)	
1	9.771L	TOP	STR-IV STR-V	P P	-11.3 -11.3	C C	25. 25.	-11.3 -11.3	C C	N/A N/A	H H	N/A N/A	H H	-2.8 -2.4	N/A N/A	
1	9.771R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Effects	Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	18.542R	TOP	STR-I	P	-11.8	C	27.	-11.8	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.8	C	27.	-11.8	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-67.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	78.25	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	76.24	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	76.24	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	73.54	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	73.43	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	73.43	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	68.86	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	64.22	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	59.62	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	55.05	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	50.52	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	46.03	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	41.57	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	37.15	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	32.77	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	32.77	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-37.15	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-41.57	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-46.03	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-50.52	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-55.05	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-59.62	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-64.22	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-68.86	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-73.30	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-73.30	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-73.43	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-73.43	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-73.54	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-78.25	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.127	3.2	1	0.000	STR-I
	Shear		-0.008	0.0	1	0.417R	STR-I
	Controlling		-0.008	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.6	-2.4	-65.3	0.142*	D
1	0.417R	TOP	STR-I	POS.	-10.9	-2.4	-65.3	0.131*	A,D
		BOT	STR-I	POS.	30.0	0.1	4.4	6.775	A
1	0.977	TOP	STR-I	POS.	-10.9	-2.4	-65.3	0.131*	A,D
		BOT	STR-I	POS.	30.0	0.3	10.0	2.967	A
1	1.000L	TOP	STR-I	POS.	-10.9	-2.4	-65.3	0.131*	A,D
		BOT	STR-I	POS.	30.0	0.3	10.2	2.903	A
1	1.000R	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	0.3	9.2	3.245	B
1	1.954	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	0.6	16.9	1.746	B
1	2.931	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	0.8	23.7	1.231	B
1	3.908	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	1.0	29.5	0.982	B,D
1	4.885	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	1.2	34.3	0.840	B,D
1	5.863	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	1.3	38.0	0.754	B,D
1	6.840	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D
		BOT	STR-I	POS.	30.0	1.4	40.7	0.702	B,D
1	7.817	TOP	STR-I	POS.	-10.6	-2.4	-65.3	0.127*	B,D

Madawaska Critical Stringer HL-93 Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	42.4	0.673	B,D
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-65.3 42.9	0.127* 0.663	B,D B,D
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-65.3 42.5	0.127* 0.669	B,D B,D
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-65.3 42.5	0.127* 0.669	B,D B,D
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-65.3 42.9	0.127* 0.663	B,D B,D
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-65.3 42.4	0.127* 0.673	B,D B,D
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.4	-65.3 40.7	0.127* 0.702	B,D B,D
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.3	-65.3 38.0	0.127* 0.754	B,D B,D
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.2	-65.3 34.3	0.127* 0.840	B,D B,D
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.0	-65.3 29.5	0.127* 0.982	B,D B,D
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.8	-65.3 23.7	0.127* 1.231	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.6	-65.3 16.9	0.127* 1.746	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.3	-65.3 9.4	0.127* 3.164	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-65.3 7.4	0.128* 4.018	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-65.3 7.2	0.128* 4.121	B,D B

 Madawaska Critical Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.8	-2.4	-65.3	0.145*	D
1	18.565	TOP	STR-I	POS.	-11.8	-2.4	-65.3	0.145*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	77.16	0.471	C
1	0.417L	STR-I	POS.	37.40	1.05	75.19	0.484	C
1	0.417R	STR-I	POS.	0.41	1.05	75.19	-0.008	A,C
1	0.977	STR-I	POS.	0.41	0.98	72.55	-0.008	A,C
1	1.000L	STR-I	POS.	0.41	0.98	72.45	-0.008	A,C
1	1.000R	STR-I	POS.	98.14	0.98	72.45	1.341	
1	1.954	STR-I	POS.	98.14	0.87	67.99	1.431	
1	2.931	STR-I	POS.	98.14	0.77	63.46	1.534	
1	3.908	STR-I	POS.	98.14	0.66	58.96	1.653	
1	4.885	STR-I	POS.	98.14	0.55	54.51	1.790	
1	5.863	STR-I	POS.	98.14	0.44	50.09	1.951	
1	6.840	STR-I	POS.	98.14	0.33	45.70	2.140	

 Madawaska Critical Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	41.35	2.368	
1	8.794	STR-I	POS.	98.14	0.11	37.04	2.646	
1	9.771L	STR-I	POS.	98.14	0.00	32.77	2.995	
1	9.771R	STR-I	POS.	98.14	0.00	32.77	2.995	
1	10.748	STR-I	NEG.	98.14	-0.11	-37.04	2.646	
1	11.725	STR-I	NEG.	98.14	-0.22	-41.35	2.368	
1	12.702	STR-I	NEG.	98.14	-0.33	-45.70	2.140	
1	13.679	STR-I	NEG.	98.14	-0.44	-50.09	1.951	
1	14.656	STR-I	NEG.	98.14	-0.55	-54.51	1.790	
1	15.633	STR-I	NEG.	98.14	-0.66	-58.96	1.653	
1	16.610	STR-I	NEG.	98.14	-0.77	-63.46	1.534	
1	17.588	STR-I	NEG.	98.14	-0.87	-67.99	1.431	
1	18.515L	STR-I	NEG.	98.14	-0.98	-72.32	1.343	
1	18.515R	STR-I	NEG.	98.14	-0.98	-72.32	1.343	
1	18.542L	STR-I	NEG.	98.14	-0.98	-72.45	1.341	
1	18.542R	STR-I	NEG.	98.14	-0.98	-72.45	1.341	
1	18.565	STR-I	NEG.	98.14	-0.98	-72.55	1.339	
1	19.542	STR-I	NEG.	98.14	-1.09	-77.16	1.258	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Critical Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		44.88	
2	SPECIAL #1	0.00		44.88	

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer HL-93 Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governors	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory	Shear	-0.008	0.0	1	0.417R	STR-I
Operating	Not Applicable					

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
INVENTORY	Dist. Fact.	0.600
RATING	Loc. (ft)	0.417R
(IR)	Limit State	STR-I
	RF	-0.01S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
OPERATING	Dist. Fact.	---
RATING	Loc. (ft)	---
(OR)	Limit State	---
	RF	---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Critical Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

SHEAR CAPACITY

WEB SPECIFICATION CHECK

BEARING STIFFENER CHECK

DEFLECTION LIMITS FOR LIVE LOAD

UNCURED SLAB WEB SPECIFICATION CHECK

RATING FACTORS - STRESS FLEXURAL CAPACITY

RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer HL-93 Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical HL-93 Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	15
SPECIAL AXLE LOAD.....	15
BRACE POINTS.....	15
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	22

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	24
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	25
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 - ANALYSIS.....	28
UNFACTORED FLEXURAL STRESSES.....	28
USER INPUT LATERAL STRESSES.....	40
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	48
SPECIAL #1 - SPECIFICATION CHECKING.....	49
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	49
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	50
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	60
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	65
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	79
SPECIAL #1 - RATINGS W/O FWS.....	85
RATING FACTORS - SUMMARY.....	85
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	85
RATING FACTORS - SHEAR CAPACITY.....	87
SUMMARY - OVERALL REACTIONS.....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	90
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	91
DL REACTIONS (UNFACTORED) PER GIRDER.....	91
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	91
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	92
DL REACTIONS (UNFACTORED) PER GIRDER.....	92
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	92

OVERALL RATING SUMMARY W/O FWS..... 93

 RATING FACTORS - OVERALL SUMMARY W/O FWS..... 93

 BRIDGE LOAD RATINGS W/O FWS..... 93

SUMMARY - SPECIFICATION CHECKS..... 94

 SPECIFICATION CHECK WARNINGS..... 94

 SPECIFICATION CHECK FAILURES..... 95

CRITICAL SECTION LOSS HL-93 (TANDEM) OPERATING RATING

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*   Program Name      STLRFD
*   Version           2.4.0.0
*   Last Updated      09/08/2016
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*   License No.       332672
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*****
*
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*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
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Madawaska Critical Stringer HL-93 Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Critical Stringer HL-93 Oper

! ** Created by EngAsst **

! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]

! ** Data Records Start Here **

CFG 58,0

TTL Madawaska Critical Stringer HL-93 Oper

TTL

TTL MADE BY: SMZ DATE: 09/22/17

TTL

TTL CHECKED BY: EMG DATE: 09/29/17

TTL

TTL BACKCHECKED BY: SMZ DATE: 09/29/17

TTL

CTL ,A,PG,I,9,1,N,N,168,,E

GEO 2.583,,,2

UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0

URF 1,D,0.6,1,F,0

URF 2,D,0.6,2,F,0

SKW 1,90,N,2,90,N

SPL 1,19.5416666666667

MAT 1,N,30,30,30

APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622

SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622

SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25

SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41

SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041

SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575

SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475

SLB 5,5,4,0

LDF SLL,1.50,0,0,0,0,0,0,0,0,0,0,0,0,0

DLD DC1,1,0,1,19.5416666666667,0.047,0.047

SLL 1,N,0.64,0

SAL 1,25,4,25,0

BRP 1,0,1,19.5417,9.77

OIN 1,1,1

OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1

OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0

ORF 1,1,1,1

Madawaska Critical Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

 Madawaska Critical Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Critical Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30	ksi
TOP FLANGE YLD. STRENGTH	30	ksi
BOT. FLANGE YLD. STRENGTH	30	ksi
CLAS.STRENGTH WELD METAL	70.	ksi (default)
WEB TENSILE STRENGTH	*	ksi (computed, if necessary)
TOP FLANGE TENSILE STR.	*	ksi (computed, if necessary)
BOT FLANGE TENSILE STR.	*	ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Critical Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

Madawaska Critical Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

Madawaska Critical Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

 Madawaska Critical Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH          4 ksi
CONC. DENSITY FOR LOADS    0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE   * (computed, if necessary)
DEV. LENGTH FACTOR SLAB    1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.50
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

 Madawaska Critical Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE            0 ft
END SPAN NUMBER          1
END DISTANCE              19.541666666 ft
START MAGNITUDE           0.047 kip/ft
END MAGNITUDE             0.047 kip/ft

COMMAND:  SLL
SPECIAL LL NUMBER        1
AXLE EFFECT               N
LANE LOAD                 0.64 kip/ft
PERCENT INCREASE         0

COMMAND:  SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 25 kip
AXLE SPACING              4 ft
AXLE LOAD                 25 kip
AXLE SPACING              0 ft

COMMAND:  BRP
START SPAN NUMBER        1
START SPAN DISTANCE       0 ft
END SPAN NUMBER          1
END SPAN DISTANCE        19.5417 ft
BRACE SPACING            9.77 ft

COMMAND:  OIN
INPUT FILE ECHO           1
INPUT COMMANDS            1
INPUT SUMMARY             1

COMMAND:  OAN
POINTS OF CONTRAFLEXURE   0
COMPACTNESS CHK REDIST.   0
LOAD MODIFIERS            1
DEAD LOADS                1
DISTRIBUTION FACTORS      1
DEAD LOAD EFFECTS         1
DEAD LOAD REACTIONS       1
STAGING ANALYSIS          0
LIVE LOAD EFFECTS         1
LIVE LOAD REACTIONS       1
HS20 EFFECTS & REACTIONS   0
H20 EFFECTS & REACTIONS    0
FATIGUE EFFECTS & REACT.   0
FACTORED EFFECTS          1
    
```

 Madawaska Critical Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: OAN (cont.)
    FACTORED REACTIONS           0
    SUMMARY-OVERALL REACTIONS    1

COMMAND: OSC
    DUCTILITY AND PROPORTIONS    0
    WIND EFFECTS                 0
    FLEXURAL CAPACITY            1
    SHEAR CAPACITY               1
    WEB CHECKS                   0
    STIFFENER CHECKS             0
    FATIGUE CHECKS               0
    FATIGUE LIFE ESTIMATION      0
    DEFLECTION CHECKS            0
    SHEAR CONNECTOR CHECKS      0
    STAGING / UNCURED CHECKS    0
    WELD CAPACITY                0
    ECONOMIC FEASIBILITY         0
    NEG MOM SERVICEABILITY       0
    SPLRFD INFORMATION           0

COMMAND: ORF
    VEHICLE RATING SUMMARY       1
    DETAILED RATING FACTORS      1
    OVERALL RATING SUMMARY       1
    RATINGS W/O FWS              1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT      490. lbf/ft^3   (default)
CONSTRUCT. MODULAR RATIO *      (computed, if necessary)
INC. FLG. IN HAUNCH WGT.   Y      (default)
AASHTO/PENNDOT SPECS      P      (default)
PRINT DIMENSION FILE      N      (default)
    
```

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

 Madawaska Critical Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 Madawaska Critical Stringer HL-93 Oper
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	F l a n g e Bottom Fy (ksi)	P l a t e Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000

Madawaska Critical Stringer HL-93 Oper
INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 2 of 2 (cont.)

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in ² /ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
				Web	Right	8.378	6.760	0.0410
1	0.417	1	1.000	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft ³)	Density Ec (lb/ft ³)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

Madawaska Critical Stringer HL-93 OperINPUT (cont.)
-----SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.500	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

Madawaska Critical Stringer HL-93 Oper
INPUT (cont.)

SYSTEM SETTINGS

Steel	Construction
Weight	Modular Ratio
(lbf/ft ³)	
490.00	11.000

Madawaska Critical Stringer HL-93 Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer HL-93 Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment M _p (k-ft)	Depth of Web, D _{cp} (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer HL-93 Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer HL-93 Oper
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.50	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer HL-93 Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

Madawaska Critical Stringer HL-93 Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer HL-93 Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer HL-93 Oper
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer HL-93 Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	6.9	38.56	0.0	0.00
1	0.417R	6.9	38.56	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.000L	16.1	37.14	0.0	0.00
1	1.000R	16.1	37.14	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00
1	17.588	29.6	-34.83	0.0	0.00
1	18.515L	16.5	-37.08	0.0	0.00
1	18.515R	16.5	-37.08	0.0	0.00

Madawaska Critical Stringer HL-93 Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	16.1	-37.14	0.0	0.00
1	18.542R	16.1	-37.14	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.417L	38.56	6.9	-0.43	3.5	0.022
1	0.417R	38.56	6.9	-0.43	3.5	0.022
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.000L	37.15	16.0	-1.03	8.2	0.052
1	1.000R	37.15	16.0	-1.03	8.2	0.052
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.515L	1.06	8.4	-37.09	16.4	0.053
1	18.515R	1.06	8.4	-37.09	16.4	0.053
1	18.542L	1.03	8.2	-37.15	16.0	0.052
1	18.542R	1.03	8.2	-37.15	16.0	0.052
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

 Madawaska Critical Stringer HL-93 Oper
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

 SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

 SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.3	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
1	1.000L	TOP	SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.1	0.0
		BOT	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
		BOT	SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	5.863	TOP	SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
		BOT	SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
1	6.840	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
		BOT	STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
		BOT	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.1	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.8	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
		BOT	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-33.5	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.0	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
		BOT	SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-33.0	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.7	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
		BOT	SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-31.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.9	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-29.7	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.5	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-23.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.2	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.8	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	60.45	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	10.8	58.89	N/A*	-4.06	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	10.8	58.89	3.54	-4.78	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.6	56.80	8.02	-10.84	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.1	56.71	8.20	-11.08	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.1	56.71	7.34	-11.17	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	46.3	53.17	13.53	-20.59	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	65.2	49.58	19.05	-28.97	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	81.2	46.01	23.72	-36.09	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	94.3	42.47	27.57	-41.93	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	104.6	38.96	30.57	-46.51	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	112.0	35.48	32.75	-49.81	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	116.6	32.03	34.08	-51.84	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	118.3	28.60	34.58	-52.61	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	117.2	25.21	34.25	-52.10	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	117.2	25.21	34.25	-52.10	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	118.3	-28.60	34.58	-52.61	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	116.6	-32.03	34.08	-51.84	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	112.0	-35.48	32.75	-49.81	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	104.6	-38.96	30.57	-46.51	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	94.3	-42.47	27.57	-41.93	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	81.2	-46.01	23.72	-36.09	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	65.2	-49.58	19.05	-28.97	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	46.3	-53.17	13.53	-20.59	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	25.8	-56.61	7.53	-11.45	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	25.8	-56.61	5.94	-8.67	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	25.1	-56.71	5.79	-8.46	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	25.1	-56.71	N/A*	-5.11	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.6	-56.80	N/A*	-5.00	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.45	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer HL-93 Oper
 SPECIAL #1 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	10.8	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	25.1	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	24.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-4.8	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	3.5	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-10.8	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	8.0	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-11.1	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	8.2	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-11.2	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	7.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.6	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.0	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	27.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-46.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	30.6	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-49.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	32.7	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-51.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.1	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.6	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.2	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.2	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.6	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-51.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.1	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-49.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	32.7	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-46.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	30.6	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.0	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.6	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-11.5	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	7.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-8.7	D	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.9	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-8.5	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.8	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

*** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.221	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.221	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.221	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10. Lr*	8.2.3 Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.221	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A		Factored Effects	Code			
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk		
					Local	Governing	Local	Governing	Stress	Moment	***					
					Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	* Mr (kip-ft)	*	F+** (ksi)	M+** (kip-ft)				
1	0.000	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	0.417L	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	0.417R	TOP	STR-I	P	-10.9	C	25.	-10.9	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	0.977	TOP	STR-I	P	-10.9	C	25.	-10.9	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000L	TOP	STR-I	P	-10.9	C	25.	-10.9	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	1.954	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	2.931	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	3.908	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3					Appendix A				Factored Stress F+** (ksi)	Effects Flexural+Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local		Governing		Local		Governing					
					Fr (ksi)	* C	Mr(e)** (kip-ft)	Fr (ksi)	* C	Mr (kip-ft)	* H	Mr (kip-ft)	* H			
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Governing Mr (kip-ft)	F+** (ksi)	Moment M+** (kip-ft)				
1	9.771L	TOP	STR-IV STR-V	P P	-11.3 -11.3	C C	25. 25.	-11.3 -11.3	C C	N/A N/A	H H	N/A N/A	H H	-2.8 -2.4	N/A N/A	
1	9.771R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		+Lateral Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored	Effects	Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Moment	Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)	***	
1	18.542R	TOP	STR-I	P	-11.9	C	27.	-11.9	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.9	C	27.	-11.9	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-52.6	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	60.45	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	58.89	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	58.89	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	56.80	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	56.71	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	56.71	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	53.17	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	49.58	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	46.01	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	42.47	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	38.96	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	35.48	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	32.03	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	28.60	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	25.21	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	25.21	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-28.60	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-32.03	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-35.48	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-38.96	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-42.47	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-46.01	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-49.58	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-53.17	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-56.61	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-56.61	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-56.71	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-56.71	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-56.80	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-60.45	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.165	4.1	1	0.000	STR-I
	Shear		-0.011	0.0	1	0.417R	STR-I
	Controlling		-0.011	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.6	-2.4	-50.3	0.184*	D
1	0.417R	TOP	STR-I	POS.	-10.9	-2.4	-50.3	0.171*	A,D
		BOT	STR-I	POS.	30.0	0.1	3.4	8.808	A
1	0.977	TOP	STR-I	POS.	-10.9	-2.4	-50.3	0.171*	A,D
		BOT	STR-I	POS.	30.0	0.3	7.7	3.857	A
1	1.000L	TOP	STR-I	POS.	-10.9	-2.4	-50.3	0.171*	A,D
		BOT	STR-I	POS.	30.0	0.3	7.9	3.773	A
1	1.000R	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	0.3	7.0	4.219	B
1	1.954	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	0.6	13.0	2.269	B
1	2.931	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	0.8	18.3	1.600	B
1	3.908	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	1.0	22.7	1.276	B
1	4.885	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	1.2	26.4	1.092	B
1	5.863	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	1.3	29.3	0.980	B,D
1	6.840	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D
		BOT	STR-I	POS.	30.0	1.4	31.3	0.912	B,D
1	7.817	TOP	STR-I	POS.	-10.6	-2.4	-50.3	0.165*	B,D

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	32.6	0.875	B,D
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-50.3 33.0	0.165* 0.861	B,D B,D
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-50.3 32.7	0.165* 0.870	B,D B,D
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-50.3 32.7	0.165* 0.870	B,D B,D
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-50.3 33.0	0.165* 0.861	B,D B,D
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-50.3 32.6	0.165* 0.875	B,D B,D
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.4	-50.3 31.3	0.165* 0.912	B,D B,D
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.3	-50.3 29.3	0.165* 0.980	B,D B,D
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.2	-50.3 26.4	0.165* 1.092	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.0	-50.3 22.7	0.165* 1.276	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.8	-50.3 18.3	0.165* 1.600	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.6	-50.3 13.0	0.165* 2.269	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.3	-50.3 7.2	0.165* 4.113	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-50.3 5.7	0.167* 5.223	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-50.3 5.6	0.167* 5.357	B,D B

Madawaska Critical Stringer HL-93 Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.9	-2.4	-50.3	0.189*	D
1	18.565	TOP	STR-I	POS.	-11.9	-2.4	-50.3	0.189*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	59.35	0.612	C
1	0.417L	STR-I	POS.	37.40	1.05	57.84	0.629	C
1	0.417R	STR-I	POS.	0.41	1.05	57.84	-0.011	A,C
1	0.977	STR-I	POS.	0.41	0.98	55.81	-0.010	A,C
1	1.000L	STR-I	POS.	0.41	0.98	55.73	-0.010	A,C
1	1.000R	STR-I	POS.	98.14	0.98	55.73	1.743	
1	1.954	STR-I	POS.	98.14	0.87	52.30	1.860	
1	2.931	STR-I	POS.	98.14	0.77	48.81	1.995	
1	3.908	STR-I	POS.	98.14	0.66	45.36	2.149	
1	4.885	STR-I	POS.	98.14	0.55	41.93	2.328	
1	5.863	STR-I	POS.	98.14	0.44	38.53	2.536	
1	6.840	STR-I	POS.	98.14	0.33	35.15	2.782	

 Madawaska Critical Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	31.81	3.078	
1	8.794	STR-I	POS.	98.14	0.11	28.49	3.440	
1	9.771L	STR-I	POS.	98.14	0.00	25.21	3.893	
1	9.771R	STR-I	POS.	98.14	0.00	25.21	3.893	
1	10.748	STR-I	NEG.	98.14	-0.11	-28.49	3.440	
1	11.725	STR-I	NEG.	98.14	-0.22	-31.81	3.078	
1	12.702	STR-I	NEG.	98.14	-0.33	-35.15	2.782	
1	13.679	STR-I	NEG.	98.14	-0.44	-38.53	2.536	
1	14.656	STR-I	NEG.	98.14	-0.55	-41.93	2.328	
1	15.633	STR-I	NEG.	98.14	-0.66	-45.36	2.149	
1	16.610	STR-I	NEG.	98.14	-0.77	-48.81	1.995	
1	17.588	STR-I	NEG.	98.14	-0.87	-52.30	1.860	
1	18.515L	STR-I	NEG.	98.14	-0.98	-55.63	1.746	
1	18.515R	STR-I	NEG.	98.14	-0.98	-55.63	1.746	
1	18.542L	STR-I	NEG.	98.14	-0.98	-55.73	1.743	
1	18.542R	STR-I	NEG.	98.14	-0.98	-55.73	1.743	
1	18.565	STR-I	NEG.	98.14	-0.98	-55.81	1.741	
1	19.542	STR-I	NEG.	98.14	-1.09	-59.35	1.635	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Critical Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		44.88	
2	SPECIAL #1	0.00		44.88	

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer HL-93 Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governors	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory	Shear	-0.011	0.0	1	0.417R	STR-I
Operating	Not Applicable					

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
INVENTORY	Dist. Fact.	0.600
RATING	Loc. (ft)	0.417R
(IR)	Limit State	STR-I
	RF	-0.01S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
OPERATING	Dist. Fact.	---
RATING	Loc. (ft)	---
(OR)	Limit State	---
	RF	---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Critical Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

SHEAR CAPACITY

WEB SPECIFICATION CHECK

BEARING STIFFENER CHECK

DEFLECTION LIMITS FOR LIVE LOAD

UNCURED SLAB WEB SPECIFICATION CHECK

RATING FACTORS - STRESS FLEXURAL CAPACITY

RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer HL-93 Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical HL-93 Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	15
SPECIAL AXLE LOAD.....	15
BRACE POINTS.....	15
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	22

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	24
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	25
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 - ANALYSIS.....	28
UNFACTORED FLEXURAL STRESSES.....	28
USER INPUT LATERAL STRESSES.....	40
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	48
SPECIAL #1 - SPECIFICATION CHECKING.....	49
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	49
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	50
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	60
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	65
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	79
SPECIAL #1 - RATINGS W/O FWS.....	85
RATING FACTORS - SUMMARY.....	85
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	85
RATING FACTORS - SHEAR CAPACITY.....	87
SUMMARY - OVERALL REACTIONS.....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	90
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	91
DL REACTIONS (UNFACTORED) PER GIRDER.....	91
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	91
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	92
DL REACTIONS (UNFACTORED) PER GIRDER.....	92
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	92

OVERALL RATING SUMMARY W/O FWS..... 93

 RATING FACTORS - OVERALL SUMMARY W/O FWS..... 93

 BRIDGE LOAD RATINGS W/O FWS..... 93

SUMMARY - SPECIFICATION CHECKS..... 94

 SPECIFICATION CHECK WARNINGS..... 94

 SPECIFICATION CHECK FAILURES..... 95

CRITICAL SECTION LOSS CL-625-ONT TRUCK INVENTORY RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Critical Stringer CL-625-ONT Truck Inv
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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*****

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Madawaska Critical Stringer CL-625-ONT Truck Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Critical Stringer CL-625-ONT Truck Inv

! ** Created by EngAsst **

! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]

! ** Data Records Start Here **

CFG 58,0

TTL Madawaska Critical Stringer CL-625-ONT Truck Inv

TTL

TTL MADE BY: SMZ DATE: 09/22/17

TTL

TTL CHECKED BY: EMG DATE: 09/29/17

TTL

TTL BACKCHECKED BY: SMZ DATE: 09/29/17

TTL

CTL ,A,PG,I,9,1,N,N,168,,E,1.25

GEO 2.583,,,2

UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0

URF 1,D,0.6,1,F,0

URF 2,D,0.6,2,F,0

SKW 1,90,N,2,90,N

SPL 1,19.5416666666667

MAT 1,N,30,30,30

APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622

SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622

SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25

SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41

SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041

SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575

SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475

SLB 5,5,4,0

LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0

DLD DC1,1,0,1,19.5416666666667,0.047,0.047

SLL 1,N,0,0

SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0

BRP 1,0,1,19.5417,9.77

OIN 1,1,1

OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1

OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0

ORF 1,1,1,1

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0         (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.25
FATIGUE DYN. LOAD ALLOW.       1.15         (default)
PA TRAFFIC FACTOR              1.20         (default)
REDISTRIBUTE NEG. MOMENTS      N           (default)
IMPORTANCE FACTOR              1.0         (default)
DUCTILITY FACTOR              1.0         (default)
REDUNDANCY FACTOR              1.0         (default)
REDUNDANT LOAD PATH            R           (default)
OUTPUT POINTS                  2           (default)
P-82 DYN. LOAD ALLOW.          1.20         (default)
SKEW ANGLE DESIGNATION         P           (default)
CONSTANT LATERAL STRESS        0. ksi     (default)
DC1S PERCENTAGE                0.         (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
    %WARNING - <GEO>:
        Real value out of range
        The value entered for BEAM/STRINGER SPACING is
        less than the lower range limit.
        Value Entered: 2.583
        Valid values are between 3. and 18.
DECK OVERHANG                  * ft       (computed, if necessary)
STAGGERED DIAPHRAGMS          N           (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *           (computed, if necessary)
SDWK NO. OF DESIGN LANES       *           (computed, if necessary)
SDWK DEFLECTION DF             *           (computed, if necessary)
    
```

Madawaska Critical Stringer CL-625-ONT Truck Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Critical Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Critical Stringer CL-625-ONT Truck Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

Madawaska Critical Stringer CL-625-ONT Truck Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH          4 ksi
CONC. DENSITY FOR LOADS    0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.63
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

Madawaska Critical Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: DLD
LOAD TYPE DC1
START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.541666666 ft
START MAGNITUDE 0.047 kip/ft
END MAGNITUDE 0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER 1
AXLE EFFECT N
LANE LOAD 0 kip/ft
PERCENT INCREASE 0

COMMAND: SAL
SPECIAL LL NUMBER 1
AXLE LOAD 11.240 kip
AXLE SPACING 11.81 ft
AXLE LOAD 31.473 kip
AXLE SPACING 3.94 ft
AXLE LOAD 31.473 kip
AXLE SPACING 21.65 ft
AXLE LOAD 39.342 kip
AXLE SPACING 21.65 ft
AXLE LOAD 26.977 kip
AXLE SPACING 0 ft

COMMAND: BRP
START SPAN NUMBER 1
START SPAN DISTANCE 0 ft
END SPAN NUMBER 1
END SPAN DISTANCE 19.5417 ft
BRACE SPACING 9.77 ft

COMMAND: OIN
INPUT FILE ECHO 1
INPUT COMMANDS 1
INPUT SUMMARY 1

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490.	lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*		(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y		(default)
AASHTO/PENNDOT SPECS	P		(default)
PRINT DIMENSION FILE	N		(default)

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
 The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L E	V R Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
1	0.417	1	1.000	Web	Right	8.378	6.760	0.0410
				Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Actual (in)	Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240 26.977	11.810 0.000	31.473	3.940	31.473	21.650	39.342	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Critical Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment M _p (k-ft)	Depth of Web, D _{cp} (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Critical Stringer CL-625-ONT Truck Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

Madawaska Critical Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	7.7	42.90	0.0	0.00
1	0.417R	7.7	42.90	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.000L	17.7	41.24	0.0	0.00
1	1.000R	17.7	41.24	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00
1	17.588	32.4	-38.52	0.0	0.00
1	18.515L	18.2	-41.16	0.0	0.00
1	18.515R	18.2	-41.16	0.0	0.00

Madawaska Critical Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	17.7	-41.24	0.0	0.00
1	18.542R	17.7	-41.24	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.417L	42.90	7.7	-0.63	5.2	0.023
1	0.417R	42.90	7.7	-0.63	5.2	0.023
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.000L	41.24	17.7	-1.51	12.0	0.054
1	1.000R	41.24	17.7	-1.51	12.0	0.054
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.515L	1.55	12.3	-41.16	18.2	0.055
1	18.515R	1.55	12.3	-41.16	18.2	0.055
1	18.542L	1.51	12.0	-41.24	17.7	0.054
1	18.542R	1.51	12.0	-41.24	17.7	0.054
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
1	1.000L	TOP	SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
		BOT	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
		BOT	SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
		BOT	SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
1	4.885	TOP	SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
		BOT	SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
1	6.840	TOP	SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
		BOT	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
		BOT	SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
1	11.725	TOP	SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
		BOT	SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0

Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst*	Total DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:
 TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

 This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	72.95	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	13.0	70.97	N/A*	-4.87	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	13.0	70.97	4.24	-5.72	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	29.3	68.31	9.56	-12.92	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	29.9	68.20	9.77	-13.21	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	29.9	68.20	8.75	-13.31	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	54.7	63.67	15.99	-24.32	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	76.2	59.02	22.26	-33.86	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	93.8	54.46	27.43	-41.73	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	108.9	50.50	31.85	-48.45	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	120.7	46.55	35.29	-53.68	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	129.2	42.59	37.75	-57.43	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	134.2	38.63	39.24	-59.69	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	136.0	34.68	39.75	-60.47	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	134.4	30.72	39.29	-59.77	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	134.4	30.72	39.29	-59.77	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	136.0	-34.68	39.75	-60.47	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	134.2	-38.63	39.24	-59.69	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	129.2	-42.59	37.75	-57.43	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	120.7	-46.55	35.29	-53.68	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	108.9	-50.50	31.85	-48.45	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	93.8	-54.46	27.43	-41.73	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	76.2	-59.02	22.26	-33.86	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	54.7	-63.67	15.99	-24.32	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	30.7	-68.07	8.97	-13.65	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	30.7	-68.07	7.08	-10.34	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	29.9	-68.20	6.91	-10.08	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	29.9	-68.20	N/A*	-6.09	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	29.3	-68.31	N/A*	-5.96	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-72.95	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	13.0	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	29.9	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	29.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. Dp <= 0.1*Dt, Mn calculated using A6.10.7.1.2-1
- B. Dp > 0.1*Dt, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-5.7	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	4.2	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-12.9	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	9.6	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-13.2	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	9.8	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-13.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	8.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	16.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-33.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	22.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-48.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	31.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-53.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	35.3	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-57.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	37.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-59.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	39.2	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-60.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	39.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-59.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	39.3	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-59.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	39.3	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-60.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	39.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-IV	POS.	1.000	1.000	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	39.2	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-57.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	37.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-53.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	35.3	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-48.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	31.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-33.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-13.6	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	9.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-10.3	D	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	7.1	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-10.1	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	130.0	30.0	6.9	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

*** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.213	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.213	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.213	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 Lr*	8.2.3 Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.213	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Local Flexural Resistance Fr (ksi)	6.10.8.2.3 Governing Flexural Resistance Mr(e)** (kip-ft)	6.10.8.2.3 Fr (ksi)	Appendix A Local Flexural Resistance Mr (kip-ft)	Appendix A Governing Flexural Resistance Mr (kip-ft)	Factored Flexural Stress F+** (ksi)	Effects Lateral Moment M+** (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-10.6 C	24.	-10.6 C	N/A	H	N/A	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
1	0.417L	TOP	STR-I	P	-11.5 C	26.	-11.5 C	N/A	H	N/A	N/A	A
			STR-IA	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-II	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-III	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-IV	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-V	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	0.417R	TOP	STR-I	P	-10.9	C	24.	-10.9	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	0.977	TOP	STR-I	P	-10.9	C	24.	-10.9	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000L	TOP	STR-I	P	-10.9	C	24.	-10.9	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	1.954	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	2.931	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	3.908	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Governing	Local Mr (kip-ft)	* Governing	* Mr (kip-ft)	* Governing	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	9.771L	TOP	STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Effects	Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Mr (kip-ft)	* Stress F+** (ksi)	Moment M+** (kip-ft)	***		
1	18.542R	TOP	STR-I	P	-11.8	C	26.	-11.8	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.8	C	26.	-11.8	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-60.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	37.40	72.95	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	70.97	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	70.97	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	68.31	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	68.20	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	68.20	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	63.67	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	59.02	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	54.46	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	50.50	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	46.55	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	42.59	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	38.63	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	34.68	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	30.72	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	30.72	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-34.68	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-38.63	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-42.59	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-46.55	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-50.50	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-54.46	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-59.02	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-63.67	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-68.07	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-68.07	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-68.20	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-68.20	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-68.31	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-72.95	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.141	9.9	1	0.000	STR-I
	Shear		-0.009	0.0	1	0.417R	STR-I
	Controlling		-0.009	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.5	-2.4	-58.1	0.158*	D
1	0.417R	TOP	STR-I	POS.	-10.9	-2.4	-58.1	0.147*	A,D
		BOT	STR-I	POS.	30.0	0.1	4.1	7.300	A
1	0.977	TOP	STR-I	POS.	-10.9	-2.4	-58.1	0.147*	A,D
		BOT	STR-I	POS.	30.0	0.3	9.2	3.213	A
1	1.000L	TOP	STR-I	POS.	-10.9	-2.4	-58.1	0.147*	A,D
		BOT	STR-I	POS.	30.0	0.3	9.4	3.144	A
1	1.000R	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	0.3	8.4	3.515	B
1	1.954	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	0.6	15.4	1.909	B
1	2.931	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	0.8	21.5	1.361	B
1	3.908	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	1.0	26.4	1.097	B
1	4.885	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	1.2	30.7	0.940	B,D
1	5.863	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	1.3	34.0	0.844	B,D
1	6.840	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D
		BOT	STR-I	POS.	30.0	1.4	36.3	0.787	B,D
1	7.817	TOP	STR-I	POS.	-10.6	-2.4	-58.1	0.141*	B,D

Madawaska Critical Stringer CL-625-ONT Truck Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	37.7	0.755	B,D
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-58.1 38.2	0.141* 0.745	B,D B,D
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-58.1 37.7	0.141* 0.754	B,D B,D
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-58.1 37.7	0.141* 0.754	B,D B,D
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-58.1 38.2	0.141* 0.745	B,D B,D
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-58.1 37.7	0.141* 0.755	B,D B,D
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.4	-58.1 36.3	0.141* 0.787	B,D B,D
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.3	-58.1 34.0	0.141* 0.844	B,D B,D
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.2	-58.1 30.7	0.141* 0.940	B,D B,D
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.0	-58.1 26.4	0.141* 1.097	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.8	-58.1 21.5	0.141* 1.361	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.6	-58.1 15.4	0.141* 1.909	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.3	-58.1 8.7	0.141* 3.427	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-58.1 6.8	0.143* 4.353	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-58.1 6.7	0.143* 4.463	B,D B

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.8	-2.4	-58.1	0.162*	D
1	18.565	TOP	STR-I	POS.	-11.8	-2.4	-58.1	0.162*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	71.86	0.505	C
1	0.417L	STR-I	POS.	37.40	1.05	69.93	0.520	C
1	0.417R	STR-I	POS.	0.41	1.05	69.93	-0.009	A,C
1	0.977	STR-I	POS.	0.41	0.98	67.33	-0.008	A,C
1	1.000L	STR-I	POS.	0.41	0.98	67.22	-0.008	A,C
1	1.000R	STR-I	POS.	98.14	0.98	67.22	1.445	
1	1.954	STR-I	POS.	98.14	0.87	62.79	1.549	
1	2.931	STR-I	POS.	98.14	0.77	58.26	1.671	
1	3.908	STR-I	POS.	98.14	0.66	53.80	1.812	
1	4.885	STR-I	POS.	98.14	0.55	49.96	1.953	
1	5.863	STR-I	POS.	98.14	0.44	46.11	2.119	
1	6.840	STR-I	POS.	98.14	0.33	42.26	2.314	

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	38.41	2.549	
1	8.794	STR-I	POS.	98.14	0.11	34.57	2.836	
1	9.771L	STR-I	POS.	98.14	0.00	30.72	3.195	
1	9.771R	STR-I	POS.	98.14	0.00	30.72	3.195	
1	10.748	STR-I	NEG.	98.14	-0.11	-34.57	2.836	
1	11.725	STR-I	NEG.	98.14	-0.22	-38.41	2.549	
1	12.702	STR-I	NEG.	98.14	-0.33	-42.26	2.314	
1	13.679	STR-I	NEG.	98.14	-0.44	-46.11	2.119	
1	14.656	STR-I	NEG.	98.14	-0.55	-49.96	1.953	
1	15.633	STR-I	NEG.	98.14	-0.66	-53.80	1.812	
1	16.610	STR-I	NEG.	98.14	-0.77	-58.26	1.671	
1	17.588	STR-I	NEG.	98.14	-0.87	-62.79	1.549	
1	18.515L	STR-I	NEG.	98.14	-0.98	-67.09	1.448	
1	18.515R	STR-I	NEG.	98.14	-0.98	-67.09	1.448	
1	18.542L	STR-I	NEG.	98.14	-0.98	-67.22	1.445	
1	18.542R	STR-I	NEG.	98.14	-0.98	-67.22	1.445	
1	18.565	STR-I	NEG.	98.14	-0.98	-67.33	1.443	
1	19.542	STR-I	NEG.	98.14	-1.09	-71.86	1.350	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer CL-625-ONT Truck Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governors	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory	Shear	-0.009	0.0	1	0.417R	STR-I
Operating	Not Applicable					

BRIDGE LOAD RATINGS W/O FWS

Span	1	Beam Type and Size: STEEL PLATE GIRDER	14. inches
		SPECIAL #1	
INVENTORY	Dist. Fact.	0.600	
RATING	Loc. (ft)	0.417R	
(IR)	Limit State	STR-I	
	RF	-0.01S	
Span	1	Beam Type and Size: STEEL PLATE GIRDER	14. inches
		SPECIAL #1	
OPERATING	Dist. Fact.	---	
RATING	Loc. (ft)	---	
(OR)	Limit State	---	
	RF	---	

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:
 GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:
 M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Critical Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
UNCURED SLAB WEB SPECIFICATION CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

Madawaska Critical Stringer CL-625-ONT Truck Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical CL-625-ONT Truck Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	14
PLATE GIRDER PROPERTIES, PART 2 of 2.....	14
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	15
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	16
SPECIAL AXLE LOAD.....	16
BRACE POINTS.....	16
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	22

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	24
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	25
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 - ANALYSIS.....	28
UNFACTORED FLEXURAL STRESSES.....	28
USER INPUT LATERAL STRESSES.....	40
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	48
SPECIAL #1 - SPECIFICATION CHECKING.....	49
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	49
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	50
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	60
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	65
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	79
SPECIAL #1 - RATINGS W/O FWS.....	85
RATING FACTORS - SUMMARY.....	85
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	85
RATING FACTORS - SHEAR CAPACITY.....	87
SUMMARY - OVERALL REACTIONS.....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	90
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	91
DL REACTIONS (UNFACTORED) PER GIRDER.....	91
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	91
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	92
DL REACTIONS (UNFACTORED) PER GIRDER.....	92
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	92

OVERALL RATING SUMMARY W/O FWS..... 93

 RATING FACTORS - OVERALL SUMMARY W/O FWS..... 93

 BRIDGE LOAD RATINGS W/O FWS..... 93

SUMMARY - SPECIFICATION CHECKS..... 94

 SPECIFICATION CHECK WARNINGS..... 94

 SPECIFICATION CHECK FAILURES..... 95

CRITICAL SECTION LOSS CL-625-ONT TRUCK OPERATING RATING


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*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated       09/08/2016
*   Documentation       09/2016
*   License No.        332672
*
*****
*
*   Madawaska Critical Stringer CL-625-ONT Truck Oper
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG           DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT

U:\\63738 - MaineDOT 2017 Ratings\\10 - Structures Tasks\\Madawaska Bridge\\Stringers\\5 - Analysis Run

!Madawaska Critical Stringer CL-625-ONT Truck Oper

! ** Created by EngAsst **

! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]

! ** Data Records Start Here **

CFG 58,0

TTL Madawaska Critical Stringer CL-625-ONT Truck Oper

TTL

TTL MADE BY: SMZ DATE: 09/22/17

TTL

TTL CHECKED BY: EMG DATE: 09/29/17

TTL

TTL BACKCHECKED BY: SMZ DATE: 09/29/17

TTL

CTL ,A,PG,I,9,1,N,N,168,,E,1.25

GEO 2.583,,,2

UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0

URF 1,D,0.6,1,F,0

URF 2,D,0.6,2,F,0

SKW 1,90,N,2,90,N

SPL 1,19.5416666666667

MAT 1,N,30,30,30

APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622

SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622

SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25

SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41

SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041

SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575

SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475

SLB 5,5,4,0

LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0,0

DLD DC1,1,0,1,19.5416666666667,0.047,0.047

SLL 1,N,0,0

SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0

BRP 1,0,1,19.5417,9.77

OIN 1,1,1

OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1

OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0

ORF 1,1,1,1

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.25
FATIGUE DYN. LOAD ALLOW.      1.15          (default)
PA TRAFFIC FACTOR              1.20          (default)
REDISTRIBUTE NEG. MOMENTS      N          (default)
IMPORTANCE FACTOR              1.0          (default)
DUCTILITY FACTOR               1.0          (default)
REDUNDANCY FACTOR              1.0          (default)
REDUNDANT LOAD PATH            R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.          1.20          (default)
SKEW ANGLE DESIGNATION        P          (default)
CONSTANT LATERAL STRESS        0. ksi    (default)
DC1S PERCENTAGE                0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
    %WARNING - <GEO>:
        Real value out of range
        The value entered for BEAM/STRINGER SPACING is
        less than the lower range limit.
        Value Entered: 2.583
        Valid values are between 3. and 18.
DECK OVERHANG                   * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS           N          (default)
NO. OF DESIGN LANES             2
DEFLECTION DF                   *          (computed, if necessary)
SDWK NO. OF DESIGN LANES        *          (computed, if necessary)
SDWK DEFLECTION DF              *          (computed, if necessary)
    
```

Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLB

ACTUAL SLAB THICK.	5 in	
EFF. SLAB THICK.	5 in	
CONCRETE STRENGTH	4 ksi	
CONC. DENSITY FOR LOADS	0 lbf/ft^3	
%WARNING - <SLB>:		
Real value out of range		
The value entered for CONC. DENSITY FOR LOADS is		
less than the lower range limit.		
Value Entered: 0.		
Valid values are between 100. and 180.		
CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.35
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: DLD
LOAD TYPE DC1
START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.541666666 ft
START MAGNITUDE 0.047 kip/ft
END MAGNITUDE 0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER 1
AXLE EFFECT N
LANE LOAD 0 kip/ft
PERCENT INCREASE 0

COMMAND: SAL
SPECIAL LL NUMBER 1
AXLE LOAD 11.240 kip
AXLE SPACING 11.81 ft
AXLE LOAD 31.473 kip
AXLE SPACING 3.94 ft
AXLE LOAD 31.473 kip
AXLE SPACING 21.65 ft
AXLE LOAD 39.342 kip
AXLE SPACING 21.65 ft
AXLE LOAD 26.977 kip
AXLE SPACING 0 ft

COMMAND: BRP
START SPAN NUMBER 1
START SPAN DISTANCE 0 ft
END SPAN NUMBER 1
END SPAN DISTANCE 19.5417 ft
BRACE SPACING 9.77 ft

COMMAND: OIN
INPUT FILE ECHO 1
INPUT COMMANDS 1
INPUT SUMMARY 1

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO	* (computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y (default)
AASHTO/PENNDOT SPECS	P (default)
PRINT DIMENSION FILE	N (default)

Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

Input Check Completed
- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00	DC1S Percentage 0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms NO	Number of Design Lanes 2	Deflection Distribution Factor

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V O A R	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
				Web	Right	8.378	6.760	0.0410
1	0.417	1	1.000	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240 26.977	11.810 0.000	31.473	3.940	31.473	21.650	39.342	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Critical Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

Madawaska Critical Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	7.7	42.90	0.0	0.00
1	0.417R	7.7	42.90	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.000L	17.7	41.24	0.0	0.00
1	1.000R	17.7	41.24	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00
1	17.588	32.4	-38.52	0.0	0.00
1	18.515L	18.2	-41.16	0.0	0.00
1	18.515R	18.2	-41.16	0.0	0.00

Madawaska Critical Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	17.7	-41.24	0.0	0.00
1	18.542R	17.7	-41.24	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.417L	42.90	7.7	-0.63	5.2	0.023
1	0.417R	42.90	7.7	-0.63	5.2	0.023
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.000L	41.24	17.7	-1.51	12.0	0.054
1	1.000R	41.24	17.7	-1.51	12.0	0.054
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.515L	1.55	12.3	-41.16	18.2	0.055
1	18.515R	1.55	12.3	-41.16	18.2	0.055
1	18.542L	1.51	12.0	-41.24	17.7	0.054
1	18.542R	1.51	12.0	-41.24	17.7	0.054
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

 SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

 SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.4	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.8	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
		BOT	SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
1	4.885	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
		BOT	SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
1	6.840	TOP	SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
		BOT	SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.1	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
		BOT	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-35.7	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
1	11.725	TOP	SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.4	0.0
			STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
		BOT	STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-35.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	23.2	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
		BOT	SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-33.9	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	22.3	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-31.7	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.8	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-28.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-24.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.2	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-20.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	13.2	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.3	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst*	Total DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	60.61	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	10.8	58.96	N/A*	-4.06	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	10.8	58.96	3.53	-4.77	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.4	56.74	7.98	-10.78	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.0	56.65	8.15	-11.02	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.0	56.65	7.30	-11.11	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.6	52.88	13.34	-20.29	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.5	49.01	18.57	-28.25	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	78.3	45.22	22.89	-34.82	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	90.9	41.92	26.58	-40.43	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	100.8	38.63	29.45	-44.80	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	107.8	35.33	31.51	-47.94	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	32.03	32.76	-49.83	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	113.5	28.74	33.19	-50.49	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	112.2	25.44	32.81	-49.91	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	112.2	25.44	32.81	-49.91	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	113.5	-28.74	33.19	-50.49	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-32.03	32.76	-49.83	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	107.8	-35.33	31.51	-47.94	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	100.8	-38.63	29.45	-44.80	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	90.9	-41.92	26.58	-40.43	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	78.3	-45.22	22.89	-34.82	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.5	-49.01	18.57	-28.25	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.6	-52.88	13.34	-20.29	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	25.6	-56.55	7.49	-11.39	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	25.6	-56.55	5.91	-8.62	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	25.0	-56.65	5.76	-8.41	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	25.0	-56.65	N/A*	-5.08	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.4	-56.74	N/A*	-4.97	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.61	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	10.8	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	25.0	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	24.4	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-4.8	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	3.5	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-10.8	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	8.0	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-11.0	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	8.2	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-11.1	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	7.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	13.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	18.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	22.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	26.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-44.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	29.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-47.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	A
			STR-I	POS.	1.000	N/A	102.6	30.0	31.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-49.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	32.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-50.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	33.2	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-49.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	32.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-49.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	32.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-50.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	33.2	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-IV	POS.	1.000	1.000	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	32.8	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
		BOT	STR-I	POS.	1.000	1.000	67.5	-30.0	-47.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	31.5	G	A
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-44.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	29.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-40.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	26.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-11.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	7.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-8.6	D	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.9	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-8.4	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	130.0	30.0	5.8	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

*** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.214	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.214	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.214	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 Lr*	8.2.3 Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.214	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Local Fr (ksi)	Governing Mr(e)** (kip-ft)	Fr (ksi)	Appendix A Local Mr (kip-ft)	Governing Mr (kip-ft)	Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-10.6 C	24.	-10.6 C	N/A	H	N/A	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	N/A	
1	0.417L	TOP	STR-I	P	-11.6 C	26.	-11.6 C	N/A	H	N/A	N/A	A
			STR-IA	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-II	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-III	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-IV	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	
			STR-V	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Effects		Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	Governing Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	Stress F+ (ksi)	Lateral Moment M+ (kip-ft)	
1	0.417R	TOP	STR-I	P	-10.9	C	24.	-10.9	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	0.977	TOP	STR-I	P	-10.9	C	24.	-10.9	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	1.000L	TOP	STR-I	P	-10.9	C	24.	-10.9	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	1.000R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	1.954	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	2.931	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	3.908	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+***	Effects Lateral Moment M+***	Code Chk ***
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	* C	Local Mr (kip-ft)	* C	Governing Mr (kip-ft)	* C			
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.6	C	24.	-10.6	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.6	C	24.	-10.6	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.6	C	24.	-10.6	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.6	C	24.	-10.6	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.6	C	24.	-10.6	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.6	C	24.	-10.6	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	6.10.8.2.3								Appendix A				Factored Effects		Code Chk ***
				Flexural Resistance				Flexural Resistance				Flexural+Lateral		Stress F+** (ksi)	Moment M+** (kip-ft)			
				Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	* Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Governing Mr (kip-ft)	* F+** (ksi)	* M+** (kip-ft)							
1	9.771L	TOP	STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
1	9.771R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A		
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
1	10.748	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A		
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
1	11.725	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A		
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
1	12.702	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A		
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
1	13.679	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A		
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
1	14.656	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A		
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A			
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A			

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Effects	Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Mr (kip-ft)	* Stress F+** (ksi)	Moment M+** (kip-ft)	***		
1	18.542R	TOP	STR-I	P	-11.8	C	27.	-11.8	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.8	C	27.	-11.8	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-50.5	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	60.61	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	58.96	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	58.96	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	56.74	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	56.65	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	56.65	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	52.88	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	49.01	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	45.22	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	41.92	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	38.63	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	35.33	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	32.03	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	28.74	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	25.44	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	25.44	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-28.74	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-32.03	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-35.33	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-38.63	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-41.92	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-45.22	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-49.01	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-52.88	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-56.55	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-56.55	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-56.65	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-56.65	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-56.74	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-60.61	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.171	12.0	1	0.000	STR-I
	Shear		-0.011	0.0	1	0.417R	STR-I
	Controlling		-0.011	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.6	-2.4	-48.1	0.191*	D
1	0.417R	TOP	STR-I	POS.	-10.9	-2.4	-48.1	0.177*	A,D
		BOT	STR-I	POS.	30.0	0.1	3.4	8.814	A
1	0.977	TOP	STR-I	POS.	-10.9	-2.4	-48.1	0.177*	A,D
		BOT	STR-I	POS.	30.0	0.3	7.6	3.879	A
1	1.000L	TOP	STR-I	POS.	-10.9	-2.4	-48.1	0.177*	A,D
		BOT	STR-I	POS.	30.0	0.3	7.8	3.796	A
1	1.000R	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	0.3	7.0	4.244	B
1	1.954	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	0.6	12.8	2.304	B
1	2.931	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	0.8	17.8	1.643	B
1	3.908	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	1.0	21.9	1.325	B
1	4.885	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	1.2	25.4	1.135	B
1	5.863	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	1.3	28.1	1.019	B
1	6.840	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D
		BOT	STR-I	POS.	30.0	1.4	30.1	0.950	B,D
1	7.817	TOP	STR-I	POS.	-10.6	-2.4	-48.1	0.171*	B,D

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	31.3	0.912	B, D
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-48.1 31.6	0.171* 0.899	B, D B, D
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-48.1 31.2	0.171* 0.910	B, D B, D
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.6	-48.1 31.2	0.171* 0.910	B, D B, D
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-48.1 31.6	0.171* 0.899	B, D B, D
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.5	-48.1 31.3	0.171* 0.912	B, D B, D
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.4	-48.1 30.1	0.171* 0.950	B, D B, D
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.3	-48.1 28.1	0.171* 1.019	B, D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.2	-48.1 25.4	0.171* 1.135	B, D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 1.0	-48.1 21.9	0.171* 1.325	B, D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.8	-48.1 17.8	0.171* 1.643	B, D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.6	-48.1 12.8	0.171* 2.304	B, D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.3	-48.1 7.2	0.171* 4.138	B, D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-48.1 5.7	0.173* 5.256	B, D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.2	-48.1 5.5	0.173* 5.389	B, D B

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.8	-2.4	-48.1	0.196*	D
1	18.565	TOP	STR-I	POS.	-11.8	-2.4	-48.1	0.196*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	59.52	0.610	C
1	0.417L	STR-I	POS.	37.40	1.05	57.91	0.628	C
1	0.417R	STR-I	POS.	0.41	1.05	57.91	-0.011	A,C
1	0.977	STR-I	POS.	0.41	0.98	55.76	-0.010	A,C
1	1.000L	STR-I	POS.	0.41	0.98	55.67	-0.010	A,C
1	1.000R	STR-I	POS.	98.14	0.98	55.67	1.745	
1	1.954	STR-I	POS.	98.14	0.87	52.00	1.870	
1	2.931	STR-I	POS.	98.14	0.77	48.25	2.018	
1	3.908	STR-I	POS.	98.14	0.66	44.56	2.188	
1	4.885	STR-I	POS.	98.14	0.55	41.37	2.359	
1	5.863	STR-I	POS.	98.14	0.44	38.19	2.558	
1	6.840	STR-I	POS.	98.14	0.33	35.00	2.794	

Madawaska Critical Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	31.81	3.078	
1	8.794	STR-I	POS.	98.14	0.11	28.63	3.424	
1	9.771L	STR-I	POS.	98.14	0.00	25.44	3.857	
1	9.771R	STR-I	POS.	98.14	0.00	25.44	3.857	
1	10.748	STR-I	NEG.	98.14	-0.11	-28.63	3.424	
1	11.725	STR-I	NEG.	98.14	-0.22	-31.81	3.078	
1	12.702	STR-I	NEG.	98.14	-0.33	-35.00	2.794	
1	13.679	STR-I	NEG.	98.14	-0.44	-38.19	2.558	
1	14.656	STR-I	NEG.	98.14	-0.55	-41.37	2.359	
1	15.633	STR-I	NEG.	98.14	-0.66	-44.56	2.188	
1	16.610	STR-I	NEG.	98.14	-0.77	-48.25	2.018	
1	17.588	STR-I	NEG.	98.14	-0.87	-52.00	1.870	
1	18.515L	STR-I	NEG.	98.14	-0.98	-55.57	1.748	
1	18.515R	STR-I	NEG.	98.14	-0.98	-55.57	1.748	
1	18.542L	STR-I	NEG.	98.14	-0.98	-55.67	1.745	
1	18.542R	STR-I	NEG.	98.14	-0.98	-55.67	1.745	
1	18.565	STR-I	NEG.	98.14	-0.98	-55.76	1.742	
1	19.542	STR-I	NEG.	98.14	-1.09	-59.52	1.631	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

Madawaska Critical Stringer CL-625-ONT Truck Oper
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		58.78	
2	SPECIAL #1	0.00		58.78	

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer CL-625-ONT Truck Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory	Shear	-0.011	0.0	1	0.417R	STR-I
Operating	Not Applicable					

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
INVENTORY	Dist. Fact.	0.600
RATING	Loc. (ft)	0.417R
(IR)	Limit State	STR-I
	RF	-0.01S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
OPERATING	Dist. Fact.	---
RATING	Loc. (ft)	---
(OR)	Limit State	---
	RF	---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Critical Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

SHEAR CAPACITY

WEB SPECIFICATION CHECK

BEARING STIFFENER CHECK

DEFLECTION LIMITS FOR LIVE LOAD

UNCURED SLAB WEB SPECIFICATION CHECK

RATING FACTORS - STRESS FLEXURAL CAPACITY

RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer CL-625-ONT Truck Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical CL-625-ONT Truck Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	14
PLATE GIRDER PROPERTIES, PART 2 of 2.....	14
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	15
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	16
SPECIAL AXLE LOAD.....	16
BRACE POINTS.....	16
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	22

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	24
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	25
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 - ANALYSIS.....	28
UNFACTORED FLEXURAL STRESSES.....	28
USER INPUT LATERAL STRESSES.....	40
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	48
SPECIAL #1 - SPECIFICATION CHECKING.....	49
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	49
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	50
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	60
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	65
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	79
SPECIAL #1 - RATINGS W/O FWS.....	85
RATING FACTORS - SUMMARY.....	85
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	85
RATING FACTORS - SHEAR CAPACITY.....	87
SUMMARY - OVERALL REACTIONS.....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	90
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	91
DL REACTIONS (UNFACTORED) PER GIRDER.....	91
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	91
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	92
DL REACTIONS (UNFACTORED) PER GIRDER.....	92
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	92

OVERALL RATING SUMMARY W/O FWS..... 93

 RATING FACTORS - OVERALL SUMMARY W/O FWS..... 93

 BRIDGE LOAD RATINGS W/O FWS..... 93

SUMMARY - SPECIFICATION CHECKS..... 94

 SPECIFICATION CHECK WARNINGS..... 94

 SPECIFICATION CHECK FAILURES..... 95

CRITICAL SECTION LOSS CL-625-ONT LANE LOAD INVENTORY RATING

```

*****
*
* Program Title      LRFD Steel Girder Design and Rating
* Program Name      STLRFD
* Version           2.4.0.0
* Last Updated      09/08/2016
* Documentation      09/2016
* License No.       332672
*
*****
*
* Madawaska Critical Stringer CL-625-ONT Lane Inv
*
* MADE BY: SMZ              DATE: 09/22/17
*
* CHECKED BY: EMG           DATE: 09/29/17
*
* BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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```

Madawaska Critical Stringer CL-625-ONT Lane Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

```
!Madawaska Critical Stringer CL-625-ONT Lane Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Critical Stringer CL-625-ONT Lane Inv
TTL
TTL MADE BY: SMZ                      DATE: 09/22/17
TTL
TTL CHECKED BY: EMG                   DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ               DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.0
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622
SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25
SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41
SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041
SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575
SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1
```

Madawaska Critical Stringer CL-625-ONT Lane Inv
INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.0
FATIGUE DYN. LOAD ALLOW.      1.15        (default)
PA TRAFFIC FACTOR              1.20        (default)
REDISTRIBUTE NEG. MOMENTS      N          (default)
IMPORTANCE FACTOR              1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR              1.0          (default)
REDUNDANT LOAD PATH            R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.         1.20        (default)
SKEW ANGLE DESIGNATION        P          (default)
CONSTANT LATERAL STRESS       0. ksi      (default)
DC1S PERCENTAGE               0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING         2.583 ft
    %WARNING - <GEO>:
        Real value out of range
        The value entered for BEAM/STRINGER SPACING is
        less than the lower range limit.
        Value Entered: 2.583
        Valid values are between 3. and 18.
DECK OVERHANG                  * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS          N          (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *          (computed, if necessary)
SDWK NO. OF DESIGN LANES      *          (computed, if necessary)
SDWK DEFLECTION DF            *          (computed, if necessary)

```

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: SPL
SPAN NUMBER          1
SPAN LENGTH          19.54166666 ft

COMMAND: MAT
MATERIAL ID NUMBER    1
NONCOMPOSITE/COMPOSITE  N
WEB YIELD STRENGTH    30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH  * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL
START SPAN NUMBER     1
START DISTANCE        0 ft
END SPAN NUMBER       1
END DISTANCE          19.5416 ft
MATERIAL ID NUMBER    1
WEB DEPTH VARIATION    C
WEB DEPTH             13.756 in
    %WARNING - <APL>:
        Real value out of range
        The value entered for WEB DEPTH is
        less than the lower range limit.
        Value Entered: 13.756
        Valid values are between 18. and 144.
WEB THICK.            0.41 in
TOP PLATE WIDTH       5.5 in
    %WARNING - <APL>:
        Real value out of range
        The value entered for TOP PLATE WIDTH is
        less than the lower range limit.
        Value Entered: 5.5
        Valid values are between 12. and 50.
TOP PLATE THICK.      0.622 in
BOT. PLATE WIDTH      5.5 in
    %WARNING - <APL>:
        Real value out of range
        The value entered for BOT. PLATE WIDTH is
        less than the lower range limit.
        Value Entered: 5.5
        Valid values are between 12. and 50.
BOT. PLATE THICK.     0.622 in
HAUNCH DEPTH          0. in (default)
DECK REINF. AREA      0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)
    
```

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.            5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.63
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

Madawaska Critical Stringer CL-625-ONT Lane Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE            0 ft
END SPAN NUMBER          1
END DISTANCE              19.541666666 ft
START MAGNITUDE           0.047 kip/ft
END MAGNITUDE             0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER        1
AXLE EFFECT               N
LANE LOAD                 0.617 kip/ft
PERCENT INCREASE         0

COMMAND: SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 8.992 kip
AXLE SPACING              11.81 ft
AXLE LOAD                 25.179 kip
AXLE SPACING              3.94 ft
AXLE LOAD                 25.179 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 31.473 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 21.582 kip
AXLE SPACING              0 ft

COMMAND: BRP
START SPAN NUMBER        1
START SPAN DISTANCE       0 ft
END SPAN NUMBER          1
END SPAN DISTANCE        19.5417 ft
BRACE SPACING            9.77 ft

COMMAND: OIN
INPUT FILE ECHO           1
INPUT COMMANDS            1
INPUT SUMMARY             1

```

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490.	lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*		(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y		(default)
AASHTO/PENNDOT SPECS	P		(default)
PRINT DIMENSION FILE	N		(default)

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
 The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT	Multiple Presence Adj. Factor	Live Load Code	Dynamic Load Allowance		Fatigue Dynamic Load Allowance	PA Traffic Factor	Redist. Neg. Moments	
168	1.000	E	1.000		1.150	1.200	NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L E	V R Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
1	0.417	1	1.000	Web	Right	8.378	6.760	0.0410
				Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992 21.582	11.810 0.000	25.179	3.940	25.179	21.650	31.473	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Critical Stringer CL-625-ONT Lane Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer CL-625-ONT Lane Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer CL-625-ONT Lane InvSECTION PROPERTIES (cont.)
-----ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

Madawaska Critical Stringer CL-625-ONT Lane Inv
 ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.6	30.92	0.0	0.00
1	0.417R	5.6	30.92	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.000L	12.8	29.64	0.0	0.00
1	1.000R	12.8	29.64	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00
1	17.588	23.5	-27.55	0.0	0.00
1	18.515L	13.1	-29.58	0.0	0.00
1	18.515R	13.1	-29.58	0.0	0.00

Madawaska Critical Stringer CL-625-ONT Lane Inv

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	12.8	-29.64	0.0	0.00
1	18.542R	12.8	-29.64	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.417L	30.92	5.5	-0.40	3.3	0.017
1	0.417R	30.92	5.5	-0.40	3.3	0.017
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.000L	29.65	12.7	-0.98	7.8	0.040
1	1.000R	29.65	12.7	-0.98	7.8	0.040
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.515L	1.00	8.0	-29.59	13.1	0.041
1	18.515R	1.00	8.0	-29.59	13.1	0.041
1	18.542L	0.98	7.8	-29.65	12.8	0.040
1	18.542R	0.98	7.8	-29.65	12.8	0.040
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

 SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

 SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	DC1							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
		BOT	SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
		BOT	SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	6.840	TOP	SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
		BOT	SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	11.725	TOP	SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
		BOT	STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
		BOT	SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0

Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst*	Total DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

 This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c	0.85*f' _c	Chk**
						(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	
1	0.000	STR-I	POS.	0.0	52.98	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	9.5	51.45	N/A*	-3.56	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	9.5	51.45	3.10	-4.19	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.39	7.01	-9.47	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	21.9	49.31	7.16	-9.68	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	21.9	49.31	6.41	-9.76	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.2	45.84	11.74	-17.85	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	56.0	42.31	16.38	-24.92	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	69.2	38.86	20.23	-30.78	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	80.5	35.84	23.52	-35.78	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	89.3	32.84	26.10	-39.70	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	95.7	29.87	27.97	-42.55	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	99.7	26.93	29.13	-44.31	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	101.2	24.02	29.58	-45.00	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	100.3	21.13	29.33	-44.61	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	100.3	21.13	29.33	-44.61	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	101.2	-24.02	29.58	-45.00	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	99.7	-26.93	29.13	-44.31	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	95.7	-29.87	27.97	-42.55	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	89.3	-32.84	26.10	-39.70	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	80.5	-35.84	23.52	-35.78	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	69.2	-38.86	20.23	-30.78	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	56.0	-42.31	16.38	-24.92	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.2	-45.84	11.74	-17.85	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	22.5	-49.21	6.58	-10.00	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	22.5	-49.21	5.19	-7.58	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	21.9	-49.31	5.06	-7.39	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	21.9	-49.31	N/A*	-4.46	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.39	N/A*	-4.36	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-52.98	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	9.5	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	21.9	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	21.5	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for $M+$ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-4.2	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	3.1	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-9.5	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	7.0	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-9.7	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	7.2	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-9.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	6.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-17.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-30.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.2	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	23.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	26.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-42.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	28.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-44.3	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	29.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-45.0	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	29.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-44.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	29.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-44.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	29.3	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-45.0	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	29.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-44.3	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	29.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-42.5	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	28.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-I	POS.	1.000	N/A	102.6	30.0	23.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-I	POS.	1.000	N/A	102.6	30.0	20.2	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-30.8	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.2	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-17.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-10.0	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	6.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-7.6	D	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.2	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-7.4	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.1	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

*** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.225	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.225	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.225	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 Lr*	8.2.3 Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* Cb*	Lr*	Appendix A Cb* Myc*	Rpc*
					(in)			(in)	(ft)	(ft)	(ft)	(kip-ft)	
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.225	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.225	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.225	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.225	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.225	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.225	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.225	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange

(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A		Factored Effects	Code			
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk		
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	0.000	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	0.417L	TOP	STR-I	P	-11.7	C	26.	-11.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3															Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk ***						
					Local Fr (ksi)	* Mr(e) (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	* F+ (ksi)	M+ (kip-ft)								
1	0.417R	TOP	STR-I	P	-11.0	C	25.	-11.0	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A						
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
1	0.977	TOP	STR-I	P	-11.0	C	25.	-11.0	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A						
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
1	1.000L	TOP	STR-I	P	-11.0	C	25.	-11.0	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A						
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A						
1	1.000R	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A						
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
1	1.954	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A						
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
1	2.931	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A						
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						
1	3.908	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A					
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A						

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Governing Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)				
1	9.771L	TOP	STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771R	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.8	C		24.	-10.8	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.8	C		24.	-10.8	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored	Effects	Code
Span		Dist.	T/B	Limit State	Flexural Resistance					Flexural Resistance				Flexural+Lateral	Effects	Chk
No.					Local	Governing	Local	Governing	Local	Governing	Stress	Moment	***			
		(ft)		Flx	Fr	*	Mr(e)**	Fr	*	Mr	*	Mr	*	F+**	M+**	
					(ksi)		(kip-ft)	(ksi)		(kip-ft)		(kip-ft)		(ksi)	(kip-ft)	
1	18.542R	TOP	STR-I	P	-11.9	C	27.	-11.9	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.9	C	27.	-11.9	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-45.0	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	37.40	52.98	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	51.45	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	51.45	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	49.39	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	49.31	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	49.31	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	45.84	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

			SHEAR CAPACITY (cont.)			
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	42.31	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	38.86	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	35.84	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	32.84	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	29.87	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	26.93	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	24.02	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	21.13	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	21.13	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-24.02	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-26.93	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-29.87	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-32.84	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-35.84	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-38.86	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-42.31	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-45.84	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-49.21	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-49.21	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-49.31	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-49.31	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-49.39	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-52.98	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.195	10.9	1	0.000	STR-I
	Shear		-0.013	0.0	1	0.417R	STR-I
	Controlling		-0.013	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.7	-2.4	-42.7	0.218*	D
1	0.417R	TOP	STR-I	POS.	-11.0	-2.4	-42.7	0.202*	A,D
		BOT	STR-I	POS.	30.0	0.1	3.0	10.103	A
1	0.977	TOP	STR-I	POS.	-11.0	-2.4	-42.7	0.202*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.7	4.443	A
1	1.000L	TOP	STR-I	POS.	-11.0	-2.4	-42.7	0.202*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.8	4.347	A
1	1.000R	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	0.3	6.1	4.859	B
1	1.954	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	0.6	11.2	2.634	B
1	2.931	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	0.8	15.6	1.874	B
1	3.908	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	1.0	19.2	1.508	B
1	4.885	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	1.2	22.4	1.290	B
1	5.863	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	1.3	24.8	1.157	B
1	6.840	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D
		BOT	STR-I	POS.	30.0	1.4	26.5	1.076	B
1	7.817	TOP	STR-I	POS.	-10.7	-2.4	-42.7	0.195*	B,D

Madawaska Critical Stringer CL-625-ONT Lane Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	27.6	1.031	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.5	-42.7 28.0	0.195* 1.015	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.6	-42.7 27.8	0.195* 1.024	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.6	-42.7 27.8	0.195* 1.024	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.5	-42.7 28.0	0.195* 1.015	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.5	-42.7 27.6	0.195* 1.031	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.4	-42.7 26.5	0.195* 1.076	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.3	-42.7 24.8	0.195* 1.157	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.2	-42.7 22.4	0.195* 1.290	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.0	-42.7 19.2	0.195* 1.508	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.8	-42.7 15.6	0.195* 1.874	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.6	-42.7 11.2	0.195* 2.634	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.3	-42.7 6.3	0.195* 4.739	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.8 30.0	-2.4 0.2	-42.7 4.9	0.197* 6.018	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.8 30.0	-2.4 0.2	-42.7 4.8	0.197* 6.171	B,D B

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.9	-2.4	-42.7	0.224*	D
1	18.565	TOP	STR-I	POS.	-11.9	-2.4	-42.7	0.224*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	51.89	0.700	C
1	0.417L	STR-I	POS.	37.40	1.05	50.40	0.721	C
1	0.417R	STR-I	POS.	0.41	1.05	50.40	-0.013	A,C
1	0.977	STR-I	POS.	0.41	0.98	48.41	-0.012	A,C
1	1.000L	STR-I	POS.	0.41	0.98	48.33	-0.012	A,C
1	1.000R	STR-I	POS.	98.14	0.98	48.33	2.010	
1	1.954	STR-I	POS.	98.14	0.87	44.96	2.163	
1	2.931	STR-I	POS.	98.14	0.77	41.54	2.344	
1	3.908	STR-I	POS.	98.14	0.66	38.21	2.551	
1	4.885	STR-I	POS.	98.14	0.55	35.29	2.765	
1	5.863	STR-I	POS.	98.14	0.44	32.40	3.015	
1	6.840	STR-I	POS.	98.14	0.33	29.54	3.311	

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	26.71	3.666	
1	8.794	STR-I	POS.	98.14	0.11	23.91	4.100	
1	9.771L	STR-I	POS.	98.14	0.00	21.13	4.643	
1	9.771R	STR-I	POS.	98.14	0.00	21.13	4.643	
1	10.748	STR-I	NEG.	98.14	-0.11	-23.91	4.100	
1	11.725	STR-I	NEG.	98.14	-0.22	-26.71	3.666	
1	12.702	STR-I	NEG.	98.14	-0.33	-29.54	3.311	
1	13.679	STR-I	NEG.	98.14	-0.44	-32.40	3.015	
1	14.656	STR-I	NEG.	98.14	-0.55	-35.29	2.765	
1	15.633	STR-I	NEG.	98.14	-0.66	-38.21	2.551	
1	16.610	STR-I	NEG.	98.14	-0.77	-41.54	2.344	
1	17.588	STR-I	NEG.	98.14	-0.87	-44.96	2.163	
1	18.515L	STR-I	NEG.	98.14	-0.98	-48.23	2.014	
1	18.515R	STR-I	NEG.	98.14	-0.98	-48.23	2.014	
1	18.542L	STR-I	NEG.	98.14	-0.98	-48.33	2.010	
1	18.542R	STR-I	NEG.	98.14	-0.98	-48.33	2.010	
1	18.565	STR-I	NEG.	98.14	-0.98	-48.41	2.007	
1	19.542	STR-I	NEG.	98.14	-1.09	-51.89	1.870	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	47.03
2	SPECIAL #1	0.00	47.03

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer CL-625-ONT Lane Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory	Shear	-0.013	0.0	1	0.417R	STR-I
Operating	Not Applicable					

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
INVENTORY	Dist. Fact.	0.600
RATING	Loc. (ft)	0.417R
(IR)	Limit State	STR-I
	RF	-0.01S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches	
	SPECIAL #1	
OPERATING	Dist. Fact.	---
RATING	Loc. (ft)	---
(OR)	Limit State	---
	RF	---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Critical Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

SHEAR CAPACITY

WEB SPECIFICATION CHECK

BEARING STIFFENER CHECK

UNCURED SLAB WEB SPECIFICATION CHECK

RATING FACTORS - STRESS FLEXURAL CAPACITY

RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer CL-625-ONT Lane Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical CL-625-ONT Lane Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	14
PLATE GIRDER PROPERTIES, PART 2 of 2.....	14
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	15
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	16
SPECIAL AXLE LOAD.....	16
BRACE POINTS.....	16
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	22

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	24
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	25
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 - ANALYSIS.....	28
UNFACTORED FLEXURAL STRESSES.....	28
USER INPUT LATERAL STRESSES.....	40
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	48
SPECIAL #1 - SPECIFICATION CHECKING.....	49
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	49
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	50
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	60
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	65
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	79
SPECIAL #1 - RATINGS W/O FWS.....	85
RATING FACTORS - SUMMARY.....	85
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	85
RATING FACTORS - SHEAR CAPACITY.....	87
SUMMARY - OVERALL REACTIONS.....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	90
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	91
DL REACTIONS (UNFACTORED) PER GIRDER.....	91
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	91
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	92
DL REACTIONS (UNFACTORED) PER GIRDER.....	92
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	92

OVERALL RATING SUMMARY W/O FWS..... 93

 RATING FACTORS - OVERALL SUMMARY W/O FWS..... 93

 BRIDGE LOAD RATINGS W/O FWS..... 93

SUMMARY - SPECIFICATION CHECKS..... 94

 SPECIFICATION CHECK WARNINGS..... 94

 SPECIFICATION CHECK FAILURES..... 95

CRITICAL SECTION LOSS CL-625-ONT LANE LOAD OPERATING RATING

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*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version              2.4.0.0
* Last Updated         09/08/2016
* Documentation         09/2016
* License No.          332672
*
*****
*
* Madawaska Critical Stringer CL-625-ONT Lane Oper
*
* MADE BY: SMZ          DATE: 09/22/17
*
* CHECKED BY: EMG       DATE: 09/29/17
*
* BACKCHECKED BY: SMZ   DATE: 09/29/17
*
*****
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Madawaska Critical Stringer CL-625-ONT Lane Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Critical Stringer CL-625-ONT Lane Oper

! ** Created by EngAsst **

! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]

! ** Data Records Start Here **

CFG 58,0

TTL Madawaska Critical Stringer CL-625-ONT Lane Oper

TTL

TTL MADE BY: SMZ DATE: 09/22/17

TTL

TTL CHECKED BY: EMG DATE: 09/29/17

TTL

TTL BACKCHECKED BY: SMZ DATE: 09/29/17

TTL

CTL ,A,PG,I,9,1,N,N,168,,E,1.00

GEO 2.583,,,2

UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0

URF 1,D,0.6,1,F,0

URF 2,D,0.6,2,F,0

SKW 1,90,N,2,90,N

SPL 1,19.5416666666667

MAT 1,N,30,30,30

APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622

SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622

SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25

SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41

SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041

SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575

SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475

SLB 5,5,4,0

LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0

DLD DC1,1,0,1,19.5416666666667,0.047,0.047

SLL 1,N,0.617,0

SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0

BRP 1,0,1,19.5417,9.77

OIN 1,1,1

OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1

OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0

ORF 1,1,1,1

Madawaska Critical Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.00	
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS	
START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
COMMAND: SLS	
START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.            5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.35
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE            0 ft
END SPAN NUMBER          1
END DISTANCE              19.541666666 ft
START MAGNITUDE           0.047 kip/ft
END MAGNITUDE             0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER        1
AXLE EFFECT               N
LANE LOAD                 0.617 kip/ft
PERCENT INCREASE          0

COMMAND: SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 8.992 kip
AXLE SPACING              11.81 ft
AXLE LOAD                 25.179 kip
AXLE SPACING              3.94 ft
AXLE LOAD                 25.179 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 31.473 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 21.582 kip
AXLE SPACING              0 ft

COMMAND: BRP
START SPAN NUMBER        1
START SPAN DISTANCE       0 ft
END SPAN NUMBER          1
END SPAN DISTANCE        19.5417 ft
BRACE SPACING             9.77 ft

COMMAND: OIN
INPUT FILE ECHO           1
INPUT COMMANDS            1
INPUT SUMMARY             1
    
```

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  OAN
POINTS OF CONTRAFLEXURE          0
COMPACTNESS CHK REDIST.          0
LOAD MODIFIERS                    1
DEAD LOADS                        1
DISTRIBUTION FACTORS              1
DEAD LOAD EFFECTS                 1
DEAD LOAD REACTIONS               1
STAGING ANALYSIS                  0
LIVE LOAD EFFECTS                 1
LIVE LOAD REACTIONS               1
HS20 EFFECTS & REACTIONS          0
H20 EFFECTS & REACTIONS           0
FATIGUE EFFECTS & REACT.          0
FACTORED EFFECTS                  1
FACTORED REACTIONS                0
SUMMARY-OVERALL REACTIONS         1

COMMAND:  OSC
DUCTILITY AND PROPORTIONS         0
WIND EFFECTS                      0
FLEXURAL CAPACITY                 1
SHEAR CAPACITY                    1
WEB CHECKS                        0
STIFFENER CHECKS                  0
FATIGUE CHECKS                    0
FATIGUE LIFE ESTIMATION           0
DEFLECTION CHECKS                 0
SHEAR CONNECTOR CHECKS           0
STAGING / UNCURED CHECKS          0
WELD CAPACITY                     0
ECONOMIC FEASIBILITY              0
NEG MOM SERVICEABILITY            0
SPLRFD INFORMATION                0

COMMAND:  ORF
VEHICLE RATING SUMMARY            1
DETAILED RATING FACTORS           1
OVERALL RATING SUMMARY            1
RATINGS W/O FWS                   1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT              490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO          *          (computed, if necessary)
INC. FLG. IN HAUNCH WGT.          Y          (default)
AASHTO/PENNDOT SPECS              P          (default)
PRINT DIMENSION FILE              N          (default)
    
```

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
 The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.000		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L E	V R Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
				Web	Right	8.378	6.760	0.0410
1	0.417	1	1.000	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992 21.582	11.810 0.000	25.179	3.940	25.179	21.650	31.473	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Critical Stringer CL-625-ONT Lane Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Top of Beam (in ³)	Section Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer CL-625-ONT Lane Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SECTION PROPERTIES (cont.)

 ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

Madawaska Critical Stringer CL-625-ONT Lane Oper
 ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.6	30.92	0.0	0.00
1	0.417R	5.6	30.92	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.000L	12.8	29.64	0.0	0.00
1	1.000R	12.8	29.64	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00
1	17.588	23.5	-27.55	0.0	0.00
1	18.515L	13.1	-29.58	0.0	0.00
1	18.515R	13.1	-29.58	0.0	0.00

Madawaska Critical Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	12.8	-29.64	0.0	0.00
1	18.542R	12.8	-29.64	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.417L	30.92	5.5	-0.40	3.3	0.017
1	0.417R	30.92	5.5	-0.40	3.3	0.017
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.000L	29.65	12.7	-0.98	7.8	0.040
1	1.000R	29.65	12.7	-0.98	7.8	0.040
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.515L	1.00	8.0	-29.59	13.1	0.041
1	18.515R	1.00	8.0	-29.59	13.1	0.041
1	18.542L	0.98	7.8	-29.65	12.8	0.040
1	18.542R	0.98	7.8	-29.65	12.8	0.040
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
		BOT	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
		BOT	SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
1	5.863	TOP	SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
		BOT	SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	6.840	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
		BOT	STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-25.9	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.2	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
		BOT	SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.8	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
		BOT	SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-24.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.7	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0

Madawaska Critical Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst*	Total DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:
 TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

 This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	44.07	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	7.9	42.79	N/A*	-2.98	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	7.9	42.79	2.59	-3.50	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	18.0	41.08	5.86	-7.92	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	18.4	41.01	5.99	-8.09	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	18.4	41.01	5.36	-8.16	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	33.6	38.11	9.82	-14.93	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	46.9	35.17	13.70	-20.85	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	57.9	32.30	16.93	-25.75	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	67.3	29.77	19.68	-29.94	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	74.7	27.27	21.84	-33.22	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	80.1	24.79	23.41	-35.61	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	83.4	22.34	24.38	-37.09	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	84.7	19.91	24.77	-37.68	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	84.0	17.50	24.56	-37.36	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	84.0	17.50	24.56	-37.36	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	84.7	-19.91	24.77	-37.68	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	83.4	-22.34	24.38	-37.09	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	80.1	-24.79	23.41	-35.61	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	74.7	-27.27	21.84	-33.22	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	67.3	-29.77	19.68	-29.94	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	57.9	-32.30	16.93	-25.75	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	46.9	-35.17	13.70	-20.85	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	33.6	-38.11	9.82	-14.93	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	18.8	-40.93	5.50	-8.37	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	18.8	-40.93	4.34	-6.34	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	18.4	-41.01	4.23	-6.18	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	18.4	-41.01	N/A*	-3.73	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	18.0	-41.08	N/A*	-3.65	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-44.07	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	7.9	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	18.4	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	18.0	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-3.5	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	2.6	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-7.9	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	5.9	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-8.1	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	6.0	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-8.2	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-14.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	9.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-25.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	19.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-33.2	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	21.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	23.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-35.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-33.2	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	21.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-25.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-14.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	9.8	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-8.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.3	D	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.3	G
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G
	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.2	D
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.2	G
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

*** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.226	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.226	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.226	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.226	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Local Fr (ksi)	Governing Mr(e)** (kip-ft)	Fr* (ksi)	Appendix A Flexural Resistance Local Mr (kip-ft)	Governing Mr* (kip-ft)	Factored Stress F+** (ksi)	Effects Lateral Moment M+** (kip-ft)	Code Chk***
1	0.000	TOP	STR-I	P	-10.7 C	24.	-10.7 C	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
1	0.417L	TOP	STR-I	P	-11.7 C	26.	-11.7 C	N/A	H	-37.7	N/A	A
			STR-IA	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	
			STR-II	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	
			STR-III	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	
			STR-IV	P	-12.4 C	28.	-12.4 C	N/A	H	-2.8	N/A	
			STR-V	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	0.417R	TOP	STR-I	P	-11.0	C	25.	-11.0	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	0.977	TOP	STR-I	P	-11.0	C	25.	-11.0	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000L	TOP	STR-I	P	-11.0	C	25.	-11.0	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000R	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	1.954	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	2.931	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	3.908	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Flexural Stress F+** (ksi)	Lateral Moment M+** (kip-ft)	
1	9.771L	TOP	STR-IV STR-V	P P	-11.3 -11.3	C C	25. 25.	-11.3 -11.3	C C	N/A N/A	H H	N/A N/A	H H	-2.8 -2.4	N/A N/A	
1	9.771R	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.7	C		24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.8	C		24.	-10.8	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.8	C		24.	-10.8	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Effects	Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Governing (kip-ft)	Local Mr (kip-ft)	* Governing (kip-ft)	* Mr (kip-ft)	* Governing (kip-ft)	F+** (ksi)	M+** (kip-ft)	***	
1	18.542R	TOP	STR-I	P	-11.9	C	27.	-11.9	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.9	C	27.	-11.9	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-37.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	44.07	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	42.79	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	42.79	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	41.08	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	41.01	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	41.01	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	38.11	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	35.17	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	32.30	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	29.77	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	27.27	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	24.79	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	22.34	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	19.91	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	17.50	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	17.50	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-19.91	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-22.34	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-24.79	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-27.27	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-29.77	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-32.30	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-35.17	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-38.11	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-40.93	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-40.93	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-41.01	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-41.01	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-41.08	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-44.07	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.235	13.2	1	0.000	STR-I
	Shear		-0.015	0.0	1	0.417R	STR-I
	Controlling		-0.015	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.7	-2.4	-35.3	0.264*	D
1	0.417R	TOP	STR-I	POS.	-11.0	-2.4	-35.3	0.244*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.4	12.199	A
1	0.977	TOP	STR-I	POS.	-11.0	-2.4	-35.3	0.244*	A,D
		BOT	STR-I	POS.	30.0	0.3	5.5	5.364	A
1	1.000L	TOP	STR-I	POS.	-11.0	-2.4	-35.3	0.244*	A,D
		BOT	STR-I	POS.	30.0	0.3	5.7	5.248	A
1	1.000R	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	0.3	5.1	5.867	B
1	1.954	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	0.6	9.3	3.181	B
1	2.931	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	0.8	12.9	2.263	B
1	3.908	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	1.0	15.9	1.820	B
1	4.885	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	1.2	18.5	1.557	B
1	5.863	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	1.3	20.5	1.397	B
1	6.840	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D
		BOT	STR-I	POS.	30.0	1.4	22.0	1.300	B
1	7.817	TOP	STR-I	POS.	-10.7	-2.4	-35.3	0.235*	B,D

Madawaska Critical Stringer CL-625-ONT Lane Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	22.9	1.245	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.5	-35.3 23.2	0.235* 1.225	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.6	-35.3 23.0	0.235* 1.237	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.6	-35.3 23.0	0.235* 1.237	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.5	-35.3 23.2	0.235* 1.225	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.5	-35.3 22.9	0.235* 1.245	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.4	-35.3 22.0	0.235* 1.300	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.3	-35.3 20.5	0.235* 1.397	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.2	-35.3 18.5	0.235* 1.557	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 1.0	-35.3 15.9	0.235* 1.820	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.8	-35.3 12.9	0.235* 2.263	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.6	-35.3 9.3	0.235* 3.181	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.7 30.0	-2.4 0.3	-35.3 5.2	0.235* 5.722	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.8 30.0	-2.4 0.2	-35.3 4.1	0.238* 7.267	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.8 30.0	-2.4 0.2	-35.3 4.0	0.238* 7.451	B,D B

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.9	-2.4	-35.3	0.270*	D
1	18.565	TOP	STR-I	POS.	-11.9	-2.4	-35.3	0.270*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	42.97	0.845	C
1	0.417L	STR-I	POS.	37.40	1.05	41.74	0.871	C
1	0.417R	STR-I	POS.	0.41	1.05	41.74	-0.015	A,C
1	0.977	STR-I	POS.	0.41	0.98	40.09	-0.014	A,C
1	1.000L	STR-I	POS.	0.41	0.98	40.03	-0.014	A,C
1	1.000R	STR-I	POS.	98.14	0.98	40.03	2.427	
1	1.954	STR-I	POS.	98.14	0.87	37.24	2.612	
1	2.931	STR-I	POS.	98.14	0.77	34.41	2.830	
1	3.908	STR-I	POS.	98.14	0.66	31.65	3.080	
1	4.885	STR-I	POS.	98.14	0.55	29.23	3.339	
1	5.863	STR-I	POS.	98.14	0.44	26.83	3.641	
1	6.840	STR-I	POS.	98.14	0.33	24.46	3.998	

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	22.12	4.427	
1	8.794	STR-I	POS.	98.14	0.11	19.80	4.951	
1	9.771L	STR-I	POS.	98.14	0.00	17.50	5.607	
1	9.771R	STR-I	POS.	98.14	0.00	17.50	5.607	
1	10.748	STR-I	NEG.	98.14	-0.11	-19.80	4.951	
1	11.725	STR-I	NEG.	98.14	-0.22	-22.12	4.427	
1	12.702	STR-I	NEG.	98.14	-0.33	-24.46	3.998	
1	13.679	STR-I	NEG.	98.14	-0.44	-26.83	3.641	
1	14.656	STR-I	NEG.	98.14	-0.55	-29.23	3.339	
1	15.633	STR-I	NEG.	98.14	-0.66	-31.65	3.080	
1	16.610	STR-I	NEG.	98.14	-0.77	-34.41	2.830	
1	17.588	STR-I	NEG.	98.14	-0.87	-37.24	2.612	
1	18.515L	STR-I	NEG.	98.14	-0.98	-39.95	2.432	
1	18.515R	STR-I	NEG.	98.14	-0.98	-39.95	2.432	
1	18.542L	STR-I	NEG.	98.14	-0.98	-40.03	2.427	
1	18.542R	STR-I	NEG.	98.14	-0.98	-40.03	2.427	
1	18.565	STR-I	NEG.	98.14	-0.98	-40.09	2.423	
1	19.542	STR-I	NEG.	98.14	-1.09	-42.97	2.258	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Critical Stringer CL-625-ONT Lane Oper
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle (kips)	LC	Maximum Reaction Vehicle (kips)	LC
1	SPECIAL #1	0.00		47.03	
2	SPECIAL #1	0.00		47.03	

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer CL-625-ONT Lane Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governors	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory	Shear	-0.015	0.0	1	0.417R	STR-I
Operating	Not Applicable					

BRIDGE LOAD RATINGS W/O FWS

Span	1	Beam Type and Size: STEEL PLATE GIRDER	14. inches
		SPECIAL #1	
INVENTORY	Dist. Fact.	0.600	
RATING	Loc. (ft)	0.417R	
(IR)	Limit State	STR-I	
	RF	-0.02S	
Span	1	Beam Type and Size: STEEL PLATE GIRDER	14. inches
		SPECIAL #1	
OPERATING	Dist. Fact.	---	
RATING	Loc. (ft)	---	
(OR)	Limit State	---	
	RF	---	

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Critical Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
UNCURED SLAB WEB SPECIFICATION CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer CL-625-ONT Lane Oper

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical CL-625-ONT Lane Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	14
PLATE GIRDER PROPERTIES, PART 2 of 2.....	14
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	15
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	16
SPECIAL AXLE LOAD.....	16
BRACE POINTS.....	16
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	22

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	24
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	25
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	27
SPECIAL #1 - ANALYSIS.....	28
UNFACTORED FLEXURAL STRESSES.....	28
USER INPUT LATERAL STRESSES.....	40
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	48
SPECIAL #1 - SPECIFICATION CHECKING.....	49
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	49
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	50
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	60
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	65
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	79
SPECIAL #1 - RATINGS W/O FWS.....	85
RATING FACTORS - SUMMARY.....	85
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	85
RATING FACTORS - SHEAR CAPACITY.....	87
SUMMARY - OVERALL REACTIONS.....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	89
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	90
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	91
DL REACTIONS (UNFACTORED) PER GIRDER.....	91
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	91
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	92
DL REACTIONS (UNFACTORED) PER GIRDER.....	92
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	92

OVERALL RATING SUMMARY W/O FWS..... 93

 RATING FACTORS - OVERALL SUMMARY W/O FWS..... 93

 BRIDGE LOAD RATINGS W/O FWS..... 93

SUMMARY - SPECIFICATION CHECKS..... 94

 SPECIFICATION CHECK WARNINGS..... 94

 SPECIFICATION CHECK FAILURES..... 95

CRITICAL SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 1-4

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*
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* Program Name          STLRFD
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* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
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*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
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Madawaska Critical Stringer MaineDOT Trucks 1-4
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Critical Stringer MaineDOT Trucks 1-4
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Critical Stringer MaineDOT Trucks 1-4
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622
SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25
SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41
SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041
SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575
SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,20,4,20,20,16.7,4,16.7,4,16.6,0
SLL 2,N,0,0
SAL 2,10,10,16.6,4,16.7,4,16.7,10,17,20.333,17,0
SLL 3,N,0,0
SAL 3,10,10,16.6,4,16.7,4,16.7,12,14,4,14,0
SLL 4,N,0,0
SAL 4,10,10,16.1,10,24.2,10,18.9,4,18.8,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Critical Stringer MaineDOT Trucks 1-4
INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.33        (default)
FATIGUE DYN. LOAD ALLOW.      1.15        (default)
PA TRAFFIC FACTOR             1.20        (default)
REDISTRIBUTE NEG. MOMENTS     N          (default)
IMPORTANCE FACTOR             1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR             1.0          (default)
REDUNDANT LOAD PATH           R          (default)
OUTPUT POINTS                 2          (default)
P-82 DYN. LOAD ALLOW.         1.20        (default)
SKEW ANGLE DESIGNATION        P          (default)
CONSTANT LATERAL STRESS       0. ksi     (default)
DC1S PERCENTAGE               0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS          N          (default)
NO. OF DESIGN LANES           2
DEFLECTION DF                  *          (computed, if necessary)
SDWK NO. OF DESIGN LANES      *          (computed, if necessary)
SDWK DEFLECTION DF            *          (computed, if necessary)

```

Madawaska Critical Stringer MaineDOT Trucks 1-4
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: SPL
SPAN NUMBER          1
SPAN LENGTH          19.54166666 ft

COMMAND: MAT
MATERIAL ID NUMBER    1
NONCOMPOSITE/COMPOSITE  N
WEB YIELD STRENGTH    30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH   * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL
START SPAN NUMBER     1
START DISTANCE        0 ft
END SPAN NUMBER       1
END DISTANCE          19.5416 ft
MATERIAL ID NUMBER    1
WEB DEPTH VARIATION    C
WEB DEPTH             13.756 in
    %WARNING - <APL>:
        Real value out of range
        The value entered for WEB DEPTH is
        less than the lower range limit.
        Value Entered: 13.756
        Valid values are between 18. and 144.
WEB THICK.            0.41 in
TOP PLATE WIDTH       5.5 in
    %WARNING - <APL>:
        Real value out of range
        The value entered for TOP PLATE WIDTH is
        less than the lower range limit.
        Value Entered: 5.5
        Valid values are between 12. and 50.
TOP PLATE THICK.      0.622 in
BOT. PLATE WIDTH      5.5 in
    %WARNING - <APL>:
        Real value out of range
        The value entered for BOT. PLATE WIDTH is
        less than the lower range limit.
        Value Entered: 5.5
        Valid values are between 12. and 50.
BOT. PLATE THICK.     0.622 in
HAUNCH DEPTH          0. in (default)
DECK REINF. AREA      0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)
    
```

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS	
START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
COMMAND: SLS	
START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS
 START SPAN NUMBER 1
 START LOSS DISTANCE 0 ft
 END SPAN NUMBER 1
 END LOSS DISTANCE 0.41666 ft
 SECTION LOSS ELEMENT W
 LOCATION R
 DISTANCE 12.756 in
 WIDTH 2 in
 THICKNESS 0.25 in
 SECTION LOSS ELEMENT W
 LOCATION L
 DISTANCE 12.756 in
 WIDTH 2 in
 THICKNESS 0.125 in
 SECTION LOSS ELEMENT W
 LOCATION L
 DISTANCE 2.5 in
 WIDTH 5 in
 THICKNESS 0.41 in

COMMAND: SLS
 START SPAN NUMBER 1
 START LOSS DISTANCE 0 ft
 END SPAN NUMBER 1
 END LOSS DISTANCE 0.41666 ft
 SECTION LOSS ELEMENT W
 LOCATION L
 DISTANCE 8.378 in
 WIDTH 6.76 in
 THICKNESS 0.041 in
 SECTION LOSS ELEMENT W
 LOCATION R
 DISTANCE 8.378 in
 WIDTH 6.76 in
 THICKNESS 0.041 in

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS
 START SPAN NUMBER 1
 START LOSS DISTANCE 1 ft
 END SPAN NUMBER 1
 END LOSS DISTANCE 18.5416 ft
 SECTION LOSS ELEMENT TP
 LOCATION B
 DISTANCE -2 in
 WIDTH 1.5 in
 THICKNESS 0.622 in
 SECTION LOSS ELEMENT TP
 LOCATION B
 DISTANCE 2.25 in
 WIDTH 1 in
 THICKNESS 0.622 in
 SECTION LOSS ELEMENT TP
 LOCATION B
 DISTANCE -0.7275 in
 WIDTH 1.045 in
 THICKNESS 0.46575 in

COMMAND: SLS
 START SPAN NUMBER 1
 START LOSS DISTANCE 1 ft
 END SPAN NUMBER 1
 END LOSS DISTANCE 18.5146 ft
 SECTION LOSS ELEMENT TP
 LOCATION B
 DISTANCE 0.9775 in
 WIDTH 1.545 in
 THICKNESS .4345 in
 SECTION LOSS ELEMENT BP
 LOCATION T
 DISTANCE -1.4775 in
 WIDTH 2.545 in
 THICKNESS 0.15475 in
 SECTION LOSS ELEMENT BP
 LOCATION T
 DISTANCE 1.4775 in
 WIDTH 2.545 in
 THICKNESS 0.15475 in

Madawaska Critical Stringer MaineDOT Trucks 1-4
INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH          4 ksi
CONC. DENSITY FOR LOADS    0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE   * (computed, if necessary)
DEV. LENGTH FACTOR SLAB    1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.45
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0

```

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: DLD	
LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft
COMMAND: SLL	
SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0
COMMAND: SAL	
SPECIAL LL NUMBER	1
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	20 kip
AXLE SPACING	4 ft
AXLE LOAD	20 kip
AXLE SPACING	20 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.6 kip
AXLE SPACING	0 ft
COMMAND: SLL	
SPECIAL LL NUMBER	2
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SAL

SPECIAL LL NUMBER	2
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	16.6 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	10 ft
AXLE LOAD	17 kip
AXLE SPACING	20.333 ft
AXLE LOAD	17 kip
AXLE SPACING	0 ft

COMMAND: SLL

SPECIAL LL NUMBER	3
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	3
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	16.6 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	12 ft
AXLE LOAD	14 kip
AXLE SPACING	4 ft
AXLE LOAD	14 kip
AXLE SPACING	0 ft

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLL
 SPECIAL LL NUMBER 4
 AXLE EFFECT N
 LANE LOAD 0 kip/ft
 PERCENT INCREASE 0

COMMAND: SAL
 SPECIAL LL NUMBER 4
 AXLE LOAD 10 kip
 AXLE SPACING 10 ft
 AXLE LOAD 16.1 kip
 AXLE SPACING 10 ft
 AXLE LOAD 24.2 kip
 AXLE SPACING 10 ft
 AXLE LOAD 18.9 kip
 AXLE SPACING 4 ft
 AXLE LOAD 18.8 kip
 AXLE SPACING 0 ft

COMMAND: BRP
 START SPAN NUMBER 1
 START SPAN DISTANCE 0 ft
 END SPAN NUMBER 1
 END SPAN DISTANCE 19.5417 ft
 BRACE SPACING 9.77 ft

COMMAND: OIN
 INPUT FILE ECHO 1
 INPUT COMMANDS 1
 INPUT SUMMARY 1

COMMAND: OAN
 POINTS OF CONTRAFLEXURE 0
 COMPACTNESS CHK REDIST. 0
 LOAD MODIFIERS 1
 DEAD LOADS 1
 DISTRIBUTION FACTORS 1
 DEAD LOAD EFFECTS 1
 DEAD LOAD REACTIONS 1
 STAGING ANALYSIS 0
 LIVE LOAD EFFECTS 1
 LIVE LOAD REACTIONS 1
 HS20 EFFECTS & REACTIONS 0
 H20 EFFECTS & REACTIONS 0
 FATIGUE EFFECTS & REACT. 0
 FACTORED EFFECTS 1
 FACTORED REACTIONS 0
 SUMMARY-OVERALL REACTIONS 1

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: OSC
DUCTILITY AND PROPORTIONS      0
WIND EFFECTS                   0
FLEXURAL CAPACITY              1
SHEAR CAPACITY                 1
WEB CHECKS                     0
STIFFENER CHECKS               0
FATIGUE CHECKS                 0
FATIGUE LIFE ESTIMATION        0
DEFLECTION CHECKS              0
SHEAR CONNECTOR CHECKS        0
STAGING / UNCURED CHECKS      0
WELD CAPACITY                  0
ECONOMIC FEASIBILITY           0
NEG MOM SERVICEABILITY         0
SPLRFD INFORMATION             0

COMMAND: ORF
VEHICLE RATING SUMMARY         1
DETAILED RATING FACTORS        1
OVERALL RATING SUMMARY         1
RATINGS W/O FWS                1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT           490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO      * (computed, if necessary)
INC. FLG. IN HAUNCH WGT.      Y (default)
AASHTO/PENNDOT SPECS          P (default)
PRINT DIMENSION FILE          N (default)
    
```

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	F l a n g e Bottom Fy (ksi)	P l a t e Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000

Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 2 of 2 (cont.)

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
				Web	Right	8.378	6.760	0.0410
1	0.417	1	1.000	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	20.000	4.000	20.000	20.000	16.700	4.000
	16.700	4.000	16.600	0.000				
2	10.000	10.000	16.600	4.000	16.700	4.000	16.700	10.000
	17.000	20.333	17.000	0.000				
3	10.000	10.000	16.600	4.000	16.700	4.000	16.700	12.000
	14.000	4.000	14.000	0.000				
4	10.000	10.000	16.100	10.000	24.200	10.000	18.900	4.000
	18.800	0.000						

 Madawaska Critical Stringer MainedOT Trucks 1-4
 INPUT (cont.)

BRACE POINTS -----				
Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS -----	
Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Critical Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer MaineDOT Trucks 1-4SECTION PROPERTIES (cont.)
-----ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 ANALYSIS (cont.)

 PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

 PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

 TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.5	30.90	0.0	0.00
1	0.417R	5.5	30.90	0.0	0.00
1	0.977	12.5	29.75	0.0	0.00
1	1.000L	12.8	29.71	0.0	0.00
1	1.000R	12.8	29.71	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	6.69	0.0	0.00
1	9.771R	61.0	6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.515L	13.1	-29.65	0.0	0.00
1	18.515R	13.1	-29.65	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 1-4ANALYSIS (cont.)
-----SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	12.8	-29.71	0.0	0.00
1	18.542R	12.8	-29.71	0.0	0.00
1	18.565	12.5	-29.75	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.75	0.0	0.00	0.0	0.000
1	0.417L	30.90	5.5	-0.34	2.8	0.018
1	0.417R	30.90	5.5	-0.34	2.8	0.018
1	0.977	29.75	12.5	-0.80	6.4	0.041
1	1.000L	29.71	12.8	-0.82	6.5	0.042
1	1.000R	29.71	12.8	-0.82	6.5	0.042
1	1.954	27.76	23.3	-1.60	12.1	0.082
1	2.931	25.76	32.5	-2.39	17.1	0.121
1	3.908	23.77	39.9	-3.19	21.5	0.156
1	4.885	21.77	45.7	-4.71	29.7	0.187
1	5.863	19.78	49.9	-6.31	37.1	0.214
1	6.840	17.78	52.3	-7.91	43.2	0.235
1	7.817	15.89	53.4	-9.50	47.9	0.250
1	8.794	14.29	54.0	-11.10	51.3	0.261
1	9.771L	12.69	53.3	-12.69	53.3	0.264
1	9.771R	12.69	53.3	-12.69	53.3	0.264
1	10.748	11.10	51.3	-14.29	54.0	0.261
1	11.725	9.50	47.9	-15.89	53.4	0.250
1	12.702	7.91	43.2	-17.78	52.3	0.235
1	13.679	6.31	37.1	-19.78	49.9	0.214
1	14.656	4.71	29.7	-21.77	45.7	0.187
1	15.633	3.19	21.5	-23.77	39.9	0.156
1	16.610	2.39	17.1	-25.76	32.5	0.121
1	17.588	1.60	12.1	-27.76	23.3	0.082
1	18.515L	0.84	6.7	-29.65	13.1	0.043
1	18.515R	0.84	6.7	-29.65	13.1	0.043
1	18.542L	0.82	6.5	-29.71	12.8	0.042
1	18.542R	0.82	6.5	-29.71	12.8	0.042
1	18.565	0.80	6.4	-29.75	12.5	0.041
1	19.542	0.00	0.0	-31.75	0.0	0.000

Madawaska Critical Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.75	0.00	0.000000	-0.004085
2	31.75	0.00	0.004085	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	39.79	0.00	0.00	0.00
2	39.79	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.7	31.65	0.0	0.00
1	0.417R	5.7	31.65	0.0	0.00
1	0.977	12.7	30.11	0.0	0.00
1	1.000L	12.9	30.05	0.0	0.00
1	1.000R	12.9	30.05	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.515L	13.2	-29.98	0.0	0.00
1	18.515R	13.2	-29.98	0.0	0.00
1	18.542L	12.9	-30.05	0.0	0.00
1	18.542R	12.9	-30.05	0.0	0.00
1	18.565	12.7	-30.11	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.79	0.0	0.00	0.0	0.000
1	0.417L	31.65	5.7	-0.29	2.4	0.018
1	0.417R	31.65	5.7	-0.29	2.4	0.018
1	0.977	30.11	12.7	-0.68	5.4	0.041
1	1.000L	30.05	12.9	-0.69	5.5	0.042
1	1.000R	30.05	12.9	-0.69	5.5	0.042
1	1.954	27.76	23.3	-1.36	10.3	0.082
1	2.931	25.76	32.5	-2.03	14.5	0.121
1	3.908	23.77	39.9	-2.71	18.2	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.71	18.2	-23.77	39.9	0.156
1	16.610	2.03	14.5	-25.76	32.5	0.121
1	17.588	1.36	10.3	-27.76	23.3	0.082
1	18.515L	0.71	5.7	-29.98	13.2	0.043
1	18.515R	0.71	5.7	-29.98	13.2	0.043
1	18.542L	0.69	5.5	-30.05	12.9	0.042
1	18.542R	0.69	5.5	-30.05	12.9	0.042

Madawaska Critical Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simultaneous Moment (k-ft)	Maximum Negative Shear (kips)	Simultaneous Moment (k-ft)	Maximum Deflect. (in)
1	18.565	0.68	5.4	-30.11	12.7	0.041
1	19.542	0.00	0.0	-32.79	0.0	0.000

SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.79	0.00	0.000000	-0.004085
2	32.79	0.00	0.004085	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	41.09	0.00	0.00	0.00
2	41.09	0.00	0.00	0.00

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simultaneous Shear (kips)	Maximum Negative Moment (k-ft)	Simultaneous Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.6	31.36	0.0	0.00
1	0.417R	5.6	31.36	0.0	0.00
1	0.977	12.6	29.98	0.0	0.00
1	1.000L	12.9	29.93	0.0	0.00
1	1.000R	12.9	29.93	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	-0.65	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.515L	13.2	-29.86	0.0	0.00
1	18.515R	13.2	-29.86	0.0	0.00
1	18.542L	12.9	-29.93	0.0	0.00
1	18.542R	12.9	-29.93	0.0	0.00
1	18.565	12.6	-29.98	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.38	0.0	0.00	0.0	0.000
1	0.417L	31.36	5.6	-0.28	2.3	0.018
1	0.417R	31.36	5.6	-0.28	2.3	0.018
1	0.977	29.98	12.6	-0.67	5.3	0.041
1	1.000L	29.93	12.9	-0.68	5.4	0.042
1	1.000R	29.93	12.9	-0.68	5.4	0.042
1	1.954	27.76	23.3	-1.33	10.1	0.082
1	2.931	25.76	32.5	-2.00	14.3	0.121
1	3.908	23.77	39.9	-2.67	17.9	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235
1	13.679	5.27	31.0	-19.78	49.9	0.214

Madawaska Critical Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simultaneous Moment (k-ft)	Maximum Negative Shear (kips)	Simultaneous Moment (k-ft)	Maximum Deflect. (in)
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.67	17.9	-23.77	39.9	0.156
1	16.610	2.00	14.3	-25.76	32.5	0.121
1	17.588	1.33	10.1	-27.76	23.3	0.082
1	18.515L	0.70	5.6	-29.86	13.2	0.043
1	18.515R	0.70	5.6	-29.86	13.2	0.043
1	18.542L	0.68	5.4	-29.93	12.9	0.042
1	18.542R	0.68	5.4	-29.93	12.9	0.042
1	18.565	0.67	5.3	-29.98	12.6	0.041
1	19.542	0.00	0.0	-32.38	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.38	0.00	0.000000	-0.004085
2	32.38	0.00	0.004085	0.000000

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	40.57	0.00	0.00	0.00
2	40.57	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simultaneous Shear (kips)	Maximum Negative Moment (k-ft)	Simultaneous Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.6	31.42	0.0	0.00
1	0.417R	5.6	31.42	0.0	0.00
1	0.977	12.6	30.00	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 1-4ANALYSIS (cont.)
-----SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	1.000L	12.9	29.95	0.0	0.00
1	1.000R	12.9	29.95	0.0	0.00
1	1.954	23.1	27.53	0.0	0.00
1	2.931	31.6	25.06	0.0	0.00
1	3.908	38.0	22.59	0.0	0.00
1	4.885	42.3	5.12	0.0	0.00
1	5.863	45.3	17.99	0.0	0.00
1	6.840	48.6	10.29	0.0	0.00
1	7.817	50.9	7.82	0.0	0.00
1	8.794	51.2	-9.73	0.0	0.00
1	9.771L	50.3	-11.97	0.0	0.00
1	9.771R	50.3	-11.97	0.0	0.00
1	10.748	51.2	9.73	0.0	0.00
1	11.725	50.9	-7.82	0.0	0.00
1	12.702	48.6	-10.29	0.0	0.00
1	13.679	45.3	-17.99	0.0	0.00
1	14.656	42.3	-20.12	0.0	0.00
1	15.633	38.0	-22.59	0.0	0.00
1	16.610	31.6	-25.06	0.0	0.00
1	17.588	23.1	-27.53	0.0	0.00
1	18.515L	13.2	-29.88	0.0	0.00
1	18.515R	13.2	-29.88	0.0	0.00
1	18.542L	12.9	-29.95	0.0	0.00
1	18.542R	12.9	-29.95	0.0	0.00
1	18.565	12.6	-30.00	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.47	0.0	0.00	0.0	0.000
1	0.417L	31.42	5.6	-0.41	3.4	0.016
1	0.417R	31.42	5.6	-0.41	3.4	0.016
1	0.977	30.00	12.6	-0.97	7.7	0.036
1	1.000L	29.95	12.9	-0.99	7.9	0.037
1	1.000R	29.95	12.9	-0.99	7.9	0.037
1	1.954	27.53	23.1	-1.93	14.6	0.069
1	2.931	25.06	31.6	-2.90	20.7	0.102
1	3.908	22.59	38.0	-3.86	26.0	0.131
1	4.885	20.12	42.3	-4.83	30.4	0.157
1	5.863	17.99	45.3	-5.95	35.0	0.178
1	6.840	16.48	48.5	-7.46	40.7	0.194

Madawaska Critical Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	7.817	14.98	50.4	-8.96	45.2	0.205
1	8.794	13.48	51.0	-10.47	48.4	0.207
1	9.771L	11.97	50.3	-11.97	50.3	0.208
1	9.771R	11.97	50.3	-11.97	50.3	0.208
1	10.748	10.47	48.4	-13.48	51.0	0.207
1	11.725	8.96	45.2	-14.98	50.4	0.205
1	12.702	7.46	40.7	-16.48	48.5	0.194
1	13.679	5.95	35.0	-17.99	45.3	0.178
1	14.656	4.83	30.4	-20.12	42.3	0.157
1	15.633	3.86	26.0	-22.59	38.0	0.131
1	16.610	2.90	20.7	-25.06	31.6	0.102
1	17.588	1.93	14.6	-27.53	23.1	0.069
1	18.515L	1.02	8.1	-29.88	13.2	0.038
1	18.515R	1.02	8.1	-29.88	13.2	0.038
1	18.542L	0.99	7.9	-29.95	12.9	0.037
1	18.542R	0.99	7.9	-29.95	12.9	0.037
1	18.565	0.97	7.7	-30.00	12.6	0.036
1	19.542	0.00	0.0	-32.47	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.47	0.00	0.000000	-0.003600
2	32.47	0.00	0.003600	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	40.69	0.00	0.00	0.00
2	40.69	0.00	0.00	0.00

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.010491
2	0.010491	0.000000

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	0.0	1.9	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.4	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.5	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
		BOT	SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	5.863	TOP	SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
		BOT	SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	6.840	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
		BOT	STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
		BOT	SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0

Madawaska Critical Stringer MainedOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
		BOT	SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
		BOT	SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	47.13	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	8.5	45.85	N/A*	-3.18	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	8.5	45.85	2.77	-3.74	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.1	44.13	6.25	-8.44	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.6	44.06	6.38	-8.63	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.6	44.06	5.72	-8.70	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	10.45	-15.90	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	14.56	-22.15	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	17.93	-27.28	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	20.56	-31.27	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	22.45	-34.14	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	24.07	-36.62	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.25	25.93	-39.44	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.83	27.04	-41.13	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	18.41	27.40	-41.69	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	18.41	27.40	-41.69	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.83	27.04	-41.13	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.25	25.93	-39.44	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	24.07	-36.62	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	22.45	-34.14	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	20.56	-31.27	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	17.93	-27.28	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	14.56	-22.15	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	10.45	-15.90	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	20.1	-43.97	5.86	-8.92	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	20.1	-43.97	4.63	-6.75	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.6	-44.06	4.51	-6.59	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.6	-44.06	N/A*	-3.98	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.1	-44.13	N/A*	-3.89	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-47.13	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	8.5	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	19.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	19.1	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for $M+$ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-3.7	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	2.8	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-8.4	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	6.2	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-8.6	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	6.4	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-8.7	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-22.2	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	14.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.3	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	20.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	22.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	24.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	25.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
		BOT	STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	27.0	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-IV	POS.	1.000	1.000	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	1.000	102.6	30.0	1.5	G	
			STR-I	POS.	1.000	1.000	67.5	-30.0	-39.4	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	25.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
		BOT	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.3	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.3	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-22.2	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	14.6	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-8.9	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	5.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.8	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.6	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.6	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.5	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* Cb*	Lr*	Appendix A Cb* Myc*	Rpc*
					(in)			(in)	(ft)	(ft)	(ft)	(kip-ft)	
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29 1.300	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange

(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Local Flexural Resistance Fr (ksi)	6.10.8.2.3 Governing Flexural Resistance Mr (ksi)	6.10.8.2.3 Governing Flexural Resistance Mr (kip-ft)	Appendix A Local Flexural Resistance Mr (ksi)	Appendix A Governing Flexural Resistance Mr (kip-ft)	Factored Flexural Stress F+ (ksi)	Effects Lateral Moment M+ (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	N/A	H	-2.4	N/A	
1	0.417L	TOP	STR-I	P	-12.4 C	28.	-12.4 C	N/A	H	-41.7	N/A	A
			STR-IA	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	
			STR-II	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	
			STR-III	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	
			STR-IV	P	-12.4 C	28.	-12.4 C	N/A	H	-2.8	N/A	
			STR-V	P	-12.4 C	28.	-12.4 C	N/A	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)		
																F+*** (ksi)
1	0.417R	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	0.977	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000L	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-2.4	N/A	
1	1.000R	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	1.954	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	2.931	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	3.908	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	* C	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Flexural Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	Governing Fr (ksi)	* Mr (e)** (kip-ft)		Local Fr (ksi)	* Mr (e)** (kip-ft)	Governing Fr (ksi)	* Mr (e)** (kip-ft)			
1	9.771L	TOP	STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
1	9.771R	TOP	STR-I	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3 C	25.	-11.3 C	25.	-11.3 C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***				
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		Moment M+** (kip-ft)			
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C		N/A	H		N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-41.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-41.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C		N/A	H		N/A	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects	Code	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk		
					Local Fr (ksi)	* Governing Mr(e)** (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	* Local Fr (ksi)	* Governing Mr (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	18.542R	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Flexural Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		Stiffened/Unstiffened	Code Check*
				Vu			
1	0.000	STR-I	37.40	47.13		U	A
		STR-IA	37.40	1.09		U	
		STR-II	37.40	1.09		U	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	45.85	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	45.85	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	44.13	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	44.06	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	44.06	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	41.13	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	38.12	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	35.12	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	32.12	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	29.12	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	26.12	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	23.25	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	20.83	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	18.41	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	18.41	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-20.83	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-23.25	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-26.12	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-29.12	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-32.12	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-35.12	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-38.12	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-41.13	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-43.97	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-43.97	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-44.06	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-44.06	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-44.13	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-47.13	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.227	11.4	1	0.000	STR-I
	Shear		-0.014	0.0	1	0.417R	STR-I
	Controlling		-0.014	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-12.4	-2.4	-39.3	0.254*	D
1	0.417R	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.6	11.394	A
1	0.977	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.3	5.9	5.014	A
1	1.000L	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.0	4.906	A
1	1.000R	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.3	5.4	5.484	B
1	1.954	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.6	9.9	2.977	B
1	2.931	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.8	13.8	2.122	B
1	3.908	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.0	16.9	1.713	B
1	4.885	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.2	19.4	1.487	B
1	5.863	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.3	21.1	1.357	B
1	6.840	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.4	22.7	1.262	B
1	7.817	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	24.4	1.167	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 25.5	0.227* 1.116	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-39.3 25.8	0.227* 1.100	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-39.3 25.8	0.227* 1.100	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 25.5	0.227* 1.116	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 24.4	0.227* 1.167	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.4	-39.3 22.7	0.227* 1.262	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.3	-39.3 21.1	0.227* 1.357	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.2	-39.3 19.4	0.227* 1.487	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.0	-39.3 16.9	0.227* 1.713	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.8	-39.3 13.8	0.227* 2.122	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.6	-39.3 9.9	0.227* 2.977	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.3	-39.3 5.6	0.227* 5.348	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-39.3 4.4	0.230* 6.793	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-39.3 4.3	0.230* 6.964	B,D B

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-12.6	-2.4	-39.3	0.261*	D
1	18.565	TOP	STR-I	POS.	-12.6	-2.4	-39.3	0.261*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	46.04	0.789	C
1	0.417L	STR-I	POS.	37.40	1.05	44.80	0.812	C
1	0.417R	STR-I	POS.	0.41	1.05	44.80	-0.014	A,C
1	0.977	STR-I	POS.	0.41	0.98	43.14	-0.013	A,C
1	1.000L	STR-I	POS.	0.41	0.98	43.08	-0.013	A,C
1	1.000R	STR-I	POS.	98.14	0.98	43.08	2.255	
1	1.954	STR-I	POS.	98.14	0.87	40.25	2.416	
1	2.931	STR-I	POS.	98.14	0.77	37.36	2.606	
1	3.908	STR-I	POS.	98.14	0.66	34.47	2.828	
1	4.885	STR-I	POS.	98.14	0.55	31.57	3.091	
1	5.863	STR-I	POS.	98.14	0.44	28.68	3.407	
1	6.840	STR-I	POS.	98.14	0.33	25.79	3.793	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	23.03	4.251	
1	8.794	STR-I	POS.	98.14	0.11	20.72	4.731	
1	9.771L	STR-I	POS.	98.14	0.00	18.41	5.332	
1	9.771R	STR-I	POS.	98.14	0.00	18.41	5.332	
1	10.748	STR-I	NEG.	98.14	-0.11	-20.72	4.731	
1	11.725	STR-I	NEG.	98.14	-0.22	-23.03	4.251	
1	12.702	STR-I	NEG.	98.14	-0.33	-25.79	3.793	
1	13.679	STR-I	NEG.	98.14	-0.44	-28.68	3.407	
1	14.656	STR-I	NEG.	98.14	-0.55	-31.57	3.091	
1	15.633	STR-I	NEG.	98.14	-0.66	-34.47	2.828	
1	16.610	STR-I	NEG.	98.14	-0.77	-37.36	2.606	
1	17.588	STR-I	NEG.	98.14	-0.87	-40.25	2.416	
1	18.515L	STR-I	NEG.	98.14	-0.98	-43.00	2.260	
1	18.515R	STR-I	NEG.	98.14	-0.98	-43.00	2.260	
1	18.542L	STR-I	NEG.	98.14	-0.98	-43.08	2.255	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.08	2.255	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.14	2.252	
1	19.542	STR-I	NEG.	98.14	-1.09	-46.04	2.108	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	6.840	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:
 TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
 input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.63	N/A*	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	8.7	46.93	N/A*	-3.25	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	8.7	46.93	2.83	-3.82	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.4	44.65	6.32	-8.54	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.8	44.55	6.45	-8.72	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.8	44.55	5.78	-8.79	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	10.45	-15.90	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	14.56	-22.15	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	17.93	-27.28	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	20.56	-31.27	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	22.45	-34.14	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	24.07	-36.62	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	25.93	-39.44	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	27.04	-41.13	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	27.40	-41.69	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 1-4SPECIAL #2 - ANALYSIS (cont.)
-----FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	9.771R	STR-I	POS.	93.7	17.11	27.40	-41.69	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	27.04	-41.13	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	25.93	-39.44	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	24.07	-36.62	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	22.45	-34.14	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	20.56	-31.27	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	17.93	-27.28	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	14.56	-22.15	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	10.45	-15.90	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	20.3	-44.44	5.92	-9.01	0.00	N/A**	N/A**	
1	18.515R	STR-I	POS.	20.3	-44.44	4.67	-6.82	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.8	-44.55	4.56	-6.66	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.8	-44.55	N/A*	-4.02	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.4	-44.65	N/A*	-3.94	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.63	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Critical Stringer MainedOT Trucks 1-4
SPECIAL #2 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	8.7	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-I	POS.	171.5	19.8	D	
1	18.565	STR-I	POS.	171.5	19.4	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh* Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.417R	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-3.8	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	2.8	G	
1	0.977	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-8.5	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	6.3	G	
1	1.000L	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-8.7	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	6.5	G	
1	1.000R	TOP	STR-I	POS.	1.000 1.000	67.5	-30.0	-8.8	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.8	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-22.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.6	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.6	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.4	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.6	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.1	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.4	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	25.9	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.0	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.0	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.4	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	25.9	G	
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.6	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.1	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.1	D	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	13.679	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.4	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.6	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-22.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.6	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-9.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.9	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.8	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.7	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.7	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.6	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A
1	0.417L	TOP	STR-I	P	-12.4 C	28.	-12.4 C	N/A	H	N/A	-41.7	N/A	A
1	0.417R	TOP	STR-I	P	-11.6 C	26.	-11.6 C	N/A	H	N/A	-41.7	N/A	A
1	0.977	TOP	STR-I	P	-11.6 C	26.	-11.6 C	N/A	H	N/A	-41.7	N/A	A
1	1.000L	TOP	STR-I	P	-11.6 C	26.	-11.6 C	N/A	H	N/A	-41.7	N/A	A
1	1.000R	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A
1	1.954	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A
1	2.931	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A
1	3.908	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A
1	4.885	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A
1	5.863	TOP	STR-I	P	-11.3 C	25.	-11.3 C	N/A	H	N/A	-41.7	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	6.840	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	7.817	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	8.794	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	9.771L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	9.771R	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	10.748	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	11.725	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	12.702	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	13.679	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	14.656	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	15.633	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	16.610	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	17.588	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.515L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.515R	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.542L	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.542R	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.565	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	19.542	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. F_r calculated using AASHTO Equation 6.10.8.2.3-1

B. F_r calculated using AASHTO Equation 6.10.8.2.3-2

C. F_r calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. M_r calculated using AASHTO Equation A6.3.3-1

E. M_r calculated using AASHTO Equation A6.3.3-2

F. M_r calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

$M_r(e)$ = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, F_r

$F+$ = $f_{bu} + (1/3)*f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If $F+$ prints as N/A, Appendix A calculations govern the LTB capacity

$M+$ = $M_u + (1/3)*f_l*S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If $M+$ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for $F+$ or $M+$ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress ($F+$) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress ($F+$) to the flexural resistance (F_r) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	48.63	U	A
1	0.417L	STR-I	37.40	46.93	U	A
1	0.417R	STR-I	0.41	46.93	U	A, B
1	0.977	STR-I	0.41	44.65	U	A, B
1	1.000L	STR-I	0.41	44.55	U	A, B
1	1.000R	STR-I	98.14	44.55	U	
1	1.954	STR-I	98.14	41.13	U	
1	2.931	STR-I	98.14	38.12	U	
1	3.908	STR-I	98.14	35.12	U	
1	4.885	STR-I	98.14	32.12	U	
1	5.863	STR-I	98.14	29.12	U	
1	6.840	STR-I	98.14	26.12	U	
1	7.817	STR-I	98.14	23.11	U	
1	8.794	STR-I	98.14	20.11	U	
1	9.771L	STR-I	98.14	17.11	U	
1	9.771R	STR-I	98.14	17.11	U	
1	10.748	STR-I	98.14	-20.11	U	
1	11.725	STR-I	98.14	-23.11	U	
1	12.702	STR-I	98.14	-26.12	U	
1	13.679	STR-I	98.14	-29.12	U	
1	14.656	STR-I	98.14	-32.12	U	
1	15.633	STR-I	98.14	-35.12	U	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	98.14	-38.12	U	
1	17.588	STR-I	98.14	-41.13	U	
1	18.515L	STR-I	98.14	-44.44	U	
1	18.515R	STR-I	98.14	-44.44	U	
1	18.542L	STR-I	98.14	-44.55	U	
1	18.542R	STR-I	98.14	-44.55	U	
1	18.565	STR-I	98.14	-44.65	U	
1	19.542	STR-I	98.14	-48.63	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.227	10.7	1	0.000	STR-I
	Shear		-0.014	0.0	1	0.417R	STR-I
	Controlling		-0.014	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-12.4	-2.4	-39.3	0.254*	D
1	0.417R	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.7	11.124	A
1	0.977	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.0	4.954	A
1	1.000L	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.1	4.850	A
1	1.000R	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.3	5.5	5.422	B
1	1.954	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.6	9.9	2.977	B
1	2.931	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.8	13.8	2.122	B
1	3.908	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.0	16.9	1.713	B
1	4.885	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.2	19.4	1.487	B
1	5.863	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.3	21.1	1.357	B
1	6.840	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.4	22.7	1.262	B
1	7.817	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	24.4	1.167	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 25.5	0.227* 1.116	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-39.3 25.8	0.227* 1.100	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-39.3 25.8	0.227* 1.100	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 25.5	0.227* 1.116	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 24.4	0.227* 1.167	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.4	-39.3 22.7	0.227* 1.262	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.3	-39.3 21.1	0.227* 1.357	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.2	-39.3 19.4	0.227* 1.487	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.0	-39.3 16.9	0.227* 1.713	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.8	-39.3 13.8	0.227* 2.122	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.6	-39.3 9.9	0.227* 2.977	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.3	-39.3 5.6	0.227* 5.290	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-39.3 4.4	0.230* 6.719	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-39.3 4.3	0.230* 6.885	B,D B

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-12.6	-2.4	-39.3	0.261*	D
1	18.565	TOP	STR-I	POS.	-12.6	-2.4	-39.3	0.261*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	47.54	0.764	C
1	0.417L	STR-I	POS.	37.40	1.05	45.89	0.792	C
1	0.417R	STR-I	POS.	0.41	1.05	45.89	-0.014	A,C
1	0.977	STR-I	POS.	0.41	0.98	43.66	-0.013	A,C
1	1.000L	STR-I	POS.	0.41	0.98	43.57	-0.013	A,C
1	1.000R	STR-I	POS.	98.14	0.98	43.57	2.230	
1	1.954	STR-I	POS.	98.14	0.87	40.25	2.416	
1	2.931	STR-I	POS.	98.14	0.77	37.36	2.606	
1	3.908	STR-I	POS.	98.14	0.66	34.47	2.828	
1	4.885	STR-I	POS.	98.14	0.55	31.57	3.091	
1	5.863	STR-I	POS.	98.14	0.44	28.68	3.407	
1	6.840	STR-I	POS.	98.14	0.33	25.79	3.793	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	22.89	4.277	
1	8.794	STR-I	POS.	98.14	0.11	20.00	4.901	
1	9.771L	STR-I	POS.	98.14	0.00	17.11	5.736	
1	9.771R	STR-I	POS.	98.14	0.00	17.11	5.736	
1	10.748	STR-I	NEG.	98.14	-0.11	-20.00	4.901	
1	11.725	STR-I	NEG.	98.14	-0.22	-22.89	4.277	
1	12.702	STR-I	NEG.	98.14	-0.33	-25.79	3.793	
1	13.679	STR-I	NEG.	98.14	-0.44	-28.68	3.407	
1	14.656	STR-I	NEG.	98.14	-0.55	-31.57	3.091	
1	15.633	STR-I	NEG.	98.14	-0.66	-34.47	2.828	
1	16.610	STR-I	NEG.	98.14	-0.77	-37.36	2.606	
1	17.588	STR-I	NEG.	98.14	-0.87	-40.25	2.416	
1	18.515L	STR-I	NEG.	98.14	-0.98	-43.47	2.235	
1	18.515R	STR-I	NEG.	98.14	-0.98	-43.47	2.235	
1	18.542L	STR-I	NEG.	98.14	-0.98	-43.57	2.230	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.57	2.230	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.66	2.225	
1	19.542	STR-I	NEG.	98.14	-1.09	-47.54	2.041	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	6.840	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.8	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.6	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-25.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	16.8	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-23.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-22.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-20.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-17.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:
TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.04	N/A*	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	8.6	46.52	N/A*	-3.22	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	8.6	46.52	2.80	-3.79	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.46	6.29	-8.50	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.7	44.38	6.43	-8.69	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.7	44.38	5.76	-8.76	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	10.45	-15.90	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	14.56	-22.15	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	17.93	-27.28	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	20.56	-31.27	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	22.45	-34.14	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	24.07	-36.62	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	25.93	-39.44	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	27.04	-41.13	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	27.40	-41.69	0.00	N/A**	N/A**	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	9.771R	STR-I	POS.	93.7	17.11	27.40	-41.69	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	27.04	-41.13	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	25.93	-39.44	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	24.07	-36.62	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	22.45	-34.14	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	20.56	-31.27	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	17.93	-27.28	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	14.56	-22.15	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	10.45	-15.90	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	20.2	-44.28	5.90	-8.98	0.00	N/A**	N/A**	
1	18.515R	STR-I	POS.	20.2	-44.28	4.66	-6.80	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.7	-44.38	4.54	-6.63	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.7	-44.38	N/A*	-4.00	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.46	N/A*	-3.92	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.04	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Critical Stringer MainedOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	8.6	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-I	POS.	171.5	19.7	D	
1	18.565	STR-I	POS.	171.5	19.3	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh* Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.417R	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-3.8	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	2.8	G	
1	0.977	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-8.5	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	6.3	G	
1	1.000L	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-8.7	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	6.4	G	
1	1.000R	TOP	STR-I	POS.	1.000 1.000	67.5	-30.0	-8.8	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.8	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-22.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.6	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.6	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.4	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.6	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.1	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.4	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	25.9	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.0	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.4	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.0	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.4	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	25.9	G	
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.6	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.1	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.1	D	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	13.679	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.4	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.6	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-22.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.6	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-9.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.9	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.8	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.7	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.6	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.5	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)															
Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Governing					Appendix A Flexural Resistance Governing				Factored Stress F+*** (ksi)	Effects Flexural+Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (kip-ft)	** Fr (ksi)	* Mr (kip-ft)	* Local Mr (kip-ft)	* Mr (kip-ft)						
1	0.000	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	0.417L	TOP	STR-I	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-41.7	N/A	A
1	0.417R	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	0.977	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	1.000L	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	1.000R	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	1.954	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	2.931	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	3.908	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	4.885	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	5.863	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	6.840	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	7.817	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	8.794	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	9.771L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	9.771R	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	10.748	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	11.725	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	12.702	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	13.679	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	14.656	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	15.633	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	16.610	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	17.588	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.515L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.515R	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.542L	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.542R	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	18.565	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-41.7	N/A	A
1	19.542	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-41.7	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. F_r calculated using AASHTO Equation 6.10.8.2.3-1

B. F_r calculated using AASHTO Equation 6.10.8.2.3-2

C. F_r calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. M_r calculated using AASHTO Equation A6.3.3-1

E. M_r calculated using AASHTO Equation A6.3.3-2

F. M_r calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

$M_r(e)$ = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, F_r

$F+$ = $f_{bu} + (1/3)*f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If $F+$ prints as N/A, Appendix A calculations govern the LTB capacity

$M+$ = $M_u + (1/3)*f_l*S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If $M+$ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for $F+$ or $M+$ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress ($F+$) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress ($F+$) to the flexural resistance (F_r) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY			
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	37.40	48.04	U	A
1	0.417L	STR-I	37.40	46.52	U	A
1	0.417R	STR-I	0.41	46.52	U	A, B
1	0.977	STR-I	0.41	44.46	U	A, B
1	1.000L	STR-I	0.41	44.38	U	A, B
1	1.000R	STR-I	98.14	44.38	U	
1	1.954	STR-I	98.14	41.13	U	
1	2.931	STR-I	98.14	38.12	U	
1	3.908	STR-I	98.14	35.12	U	
1	4.885	STR-I	98.14	32.12	U	
1	5.863	STR-I	98.14	29.12	U	
1	6.840	STR-I	98.14	26.12	U	
1	7.817	STR-I	98.14	23.11	U	
1	8.794	STR-I	98.14	20.11	U	
1	9.771L	STR-I	98.14	17.11	U	
1	9.771R	STR-I	98.14	17.11	U	
1	10.748	STR-I	98.14	-20.11	U	
1	11.725	STR-I	98.14	-23.11	U	
1	12.702	STR-I	98.14	-26.12	U	
1	13.679	STR-I	98.14	-29.12	U	
1	14.656	STR-I	98.14	-32.12	U	
1	15.633	STR-I	98.14	-35.12	U	

 Madawaska Critical Stringer MainedOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	98.14	-38.12	U	
1	17.588	STR-I	98.14	-41.13	U	
1	18.515L	STR-I	98.14	-44.28	U	
1	18.515R	STR-I	98.14	-44.28	U	
1	18.542L	STR-I	98.14	-44.38	U	
1	18.542R	STR-I	98.14	-44.38	U	
1	18.565	STR-I	98.14	-44.46	U	
1	19.542	STR-I	98.14	-48.04	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.227	10.0	1	0.000	STR-I
	Shear		-0.014	0.0	1	0.417R	STR-I
	Controlling		-0.014	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-12.4	-2.4	-39.3	0.254*	D
1	0.417R	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.7	11.227	A
1	0.977	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.0	4.975	A
1	1.000L	TOP	STR-I	POS.	-11.6	-2.4	-39.3	0.236*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.1	4.869	A
1	1.000R	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.3	5.5	5.444	B
1	1.954	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.6	9.9	2.977	B
1	2.931	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	0.8	13.8	2.122	B
1	3.908	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.0	16.9	1.713	B
1	4.885	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.2	19.4	1.487	B
1	5.863	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.3	21.1	1.357	B
1	6.840	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D
		BOT	STR-I	POS.	30.0	1.4	22.7	1.262	B
1	7.817	TOP	STR-I	POS.	-11.3	-2.4	-39.3	0.227*	B,D

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex. POS.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	24.4	1.167	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 25.5	0.227* 1.116	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-39.3 25.8	0.227* 1.100	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-39.3 25.8	0.227* 1.100	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 25.5	0.227* 1.116	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-39.3 24.4	0.227* 1.167	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.4	-39.3 22.7	0.227* 1.262	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.3	-39.3 21.1	0.227* 1.357	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.2	-39.3 19.4	0.227* 1.487	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.0	-39.3 16.9	0.227* 1.713	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.8	-39.3 13.8	0.227* 2.122	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.6	-39.3 9.9	0.227* 2.977	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.3	-39.3 5.6	0.227* 5.311	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-39.3 4.4	0.230* 6.745	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-39.3 4.3	0.230* 6.913	B,D B

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-12.6	-2.4	-39.3	0.261*	D
1	18.565	TOP	STR-I	POS.	-12.6	-2.4	-39.3	0.261*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	46.95	0.773	C
1	0.417L	STR-I	POS.	37.40	1.05	45.47	0.800	C
1	0.417R	STR-I	POS.	0.41	1.05	45.47	-0.014	A,C
1	0.977	STR-I	POS.	0.41	0.98	43.48	-0.013	A,C
1	1.000L	STR-I	POS.	0.41	0.98	43.40	-0.013	A,C
1	1.000R	STR-I	POS.	98.14	0.98	43.40	2.239	
1	1.954	STR-I	POS.	98.14	0.87	40.25	2.416	
1	2.931	STR-I	POS.	98.14	0.77	37.36	2.606	
1	3.908	STR-I	POS.	98.14	0.66	34.47	2.828	
1	4.885	STR-I	POS.	98.14	0.55	31.57	3.091	
1	5.863	STR-I	POS.	98.14	0.44	28.68	3.407	
1	6.840	STR-I	POS.	98.14	0.33	25.79	3.793	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	22.89	4.277	
1	8.794	STR-I	POS.	98.14	0.11	20.00	4.901	
1	9.771L	STR-I	POS.	98.14	0.00	17.11	5.736	
1	9.771R	STR-I	POS.	98.14	0.00	17.11	5.736	
1	10.748	STR-I	NEG.	98.14	-0.11	-20.00	4.901	
1	11.725	STR-I	NEG.	98.14	-0.22	-22.89	4.277	
1	12.702	STR-I	NEG.	98.14	-0.33	-25.79	3.793	
1	13.679	STR-I	NEG.	98.14	-0.44	-28.68	3.407	
1	14.656	STR-I	NEG.	98.14	-0.55	-31.57	3.091	
1	15.633	STR-I	NEG.	98.14	-0.66	-34.47	2.828	
1	16.610	STR-I	NEG.	98.14	-0.77	-37.36	2.606	
1	17.588	STR-I	NEG.	98.14	-0.87	-40.25	2.416	
1	18.515L	STR-I	NEG.	98.14	-0.98	-43.30	2.244	
1	18.515R	STR-I	NEG.	98.14	-0.98	-43.30	2.244	
1	18.542L	STR-I	NEG.	98.14	-0.98	-43.40	2.239	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.40	2.239	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.48	2.235	
1	19.542	STR-I	NEG.	98.14	-1.09	-46.95	2.067	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.8	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-16.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-20.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.3	0.0
1	6.840	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-21.6	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.2	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-22.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-22.8	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	15.0	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-22.4	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	14.7	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4

SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-22.4	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	14.7	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-22.8	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	15.0	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-22.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-21.6	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.2	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-20.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.3	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-16.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:
TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.18	N/A*	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	8.6	46.61	N/A*	-3.23	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	8.6	46.61	2.81	-3.80	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.49	6.30	-8.51	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.7	44.40	6.43	-8.69	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.7	44.40	5.76	-8.76	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.5	40.80	10.37	-15.77	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	48.5	37.11	14.19	-21.58	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	58.5	33.42	17.09	-26.00	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	65.3	29.73	19.09	-29.04	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	70.2	26.52	20.53	-31.23	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	75.3	24.23	22.02	-33.49	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	79.0	21.94	23.08	-35.11	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	79.5	19.65	23.24	-35.35	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	78.3	17.36	22.88	-34.81	0.00	N/A**	N/A**	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
1	9.771R	STR-I	POS.	78.3	17.36	22.88	-34.81	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	79.5	-19.65	23.24	-35.35	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	79.0	-21.94	23.08	-35.11	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	75.3	-24.23	22.02	-33.49	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	70.2	-26.52	20.53	-31.23	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	65.3	-29.73	19.09	-29.04	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	58.5	-33.42	17.09	-26.00	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	48.5	-37.11	14.19	-21.58	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.5	-40.80	10.37	-15.77	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	20.2	-44.30	5.90	-8.98	0.00	N/A**	N/A**	
1	18.515R	STR-I	POS.	20.2	-44.30	4.66	-6.80	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.7	-44.40	4.55	-6.64	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.7	-44.40	N/A*	-4.01	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.49	N/A*	-3.92	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.18	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Critical Stringer MainedOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	8.6	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-I	POS.	171.5	19.7	D	
1	18.565	STR-I	POS.	171.5	19.3	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh* Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.417R	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-3.8	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	2.8	G	
1	0.977	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-8.5	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	6.3	G	
1	1.000L	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-8.7	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	6.4	G	
1	1.000R	TOP	STR-I	POS.	1.000 1.000	67.5	-30.0	-8.8	D	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.8	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-21.6	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.2	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-26.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.1	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.1	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.2	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.5	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-33.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.0	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.1	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.2	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.8	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.9	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.8	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.9	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.2	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-35.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.1	G	
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-33.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.0	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-31.2	D	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	13.679	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	20.5	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.1	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-26.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.1	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-21.6	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.2	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-15.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	10.4	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-9.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	5.9	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.8	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.7	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-6.6	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.5	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Cb*	Appendix A		Rpc*
										Lr*	Cb*			Myc* (kip-ft)		
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.182	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.182	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.182	N/A	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.182	N/A	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.182	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.182	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.182	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.182	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.182	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Governing					Appendix A Flexural Resistance Governing				Factored Stress F+*** (ksi)	Effects Flexural+Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (kip-ft)	** Fr (ksi)	* Mr (kip-ft)	* Local Mr (kip-ft)	* Mr (kip-ft)						
1	0.000	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	0.417L	TOP	STR-I	P	-11.2	C	25.	-11.2	C	N/A	H	N/A	H	-35.3	N/A	A
1	0.417R	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-35.3	N/A	A
1	0.977	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-35.3	N/A	A
1	1.000L	TOP	STR-I	P	-10.6	C	24.	-10.6	C	N/A	H	N/A	H	-35.3	N/A	A
1	1.000R	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	1.954	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	2.931	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	3.908	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	4.885	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	5.863	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	6.840	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	7.817	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	8.794	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	9.771L	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	9.771R	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	10.748	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	11.725	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	12.702	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	13.679	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	14.656	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	15.633	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	16.610	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	17.588	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	18.515L	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A
1	18.515R	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-35.3	N/A	A
1	18.542L	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-35.3	N/A	A
1	18.542R	TOP	STR-I	P	-11.5	C	26.	-11.5	C	N/A	H	N/A	H	-35.3	N/A	A
1	18.565	TOP	STR-I	P	-11.5	C	26.	-11.5	C	N/A	H	N/A	H	-35.3	N/A	A
1	19.542	TOP	STR-I	P	-10.3	C	23.	-10.3	C	N/A	H	N/A	H	-35.3	N/A	A

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY			
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	37.40	48.18	U	A
1	0.417L	STR-I	37.40	46.61	U	A
1	0.417R	STR-I	0.41	46.61	U	A, B
1	0.977	STR-I	0.41	44.49	U	A, B
1	1.000L	STR-I	0.41	44.40	U	A, B
1	1.000R	STR-I	98.14	44.40	U	
1	1.954	STR-I	98.14	40.80	U	
1	2.931	STR-I	98.14	37.11	U	
1	3.908	STR-I	98.14	33.42	U	
1	4.885	STR-I	98.14	29.73	U	
1	5.863	STR-I	98.14	26.52	U	
1	6.840	STR-I	98.14	24.23	U	
1	7.817	STR-I	98.14	21.94	U	
1	8.794	STR-I	98.14	19.65	U	
1	9.771L	STR-I	98.14	17.36	U	
1	9.771R	STR-I	98.14	17.36	U	
1	10.748	STR-I	98.14	-19.65	U	
1	11.725	STR-I	98.14	-21.94	U	
1	12.702	STR-I	98.14	-24.23	U	
1	13.679	STR-I	98.14	-26.52	U	
1	14.656	STR-I	98.14	-29.73	U	
1	15.633	STR-I	98.14	-33.42	U	

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	98.14	-37.11	U	
1	17.588	STR-I	98.14	-40.80	U	
1	18.515L	STR-I	98.14	-44.30	U	
1	18.515R	STR-I	98.14	-44.30	U	
1	18.542L	STR-I	98.14	-44.40	U	
1	18.542R	STR-I	98.14	-44.40	U	
1	18.565	STR-I	98.14	-44.49	U	
1	19.542	STR-I	98.14	-48.18	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.240	10.6	1	0.000	STR-I
	Shear		-0.014	0.0	1	0.417R	STR-I
	Controlling		-0.014	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.2	-2.4	-33.0	0.270*	D
1	0.417R	TOP	STR-I	POS.	-10.6	-2.4	-33.0	0.250*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.7	11.204	A
1	0.977	TOP	STR-I	POS.	-10.6	-2.4	-33.0	0.250*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.0	4.972	A
1	1.000L	TOP	STR-I	POS.	-10.6	-2.4	-33.0	0.250*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.1	4.867	A
1	1.000R	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	0.3	5.5	5.441	B
1	1.954	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	0.6	9.8	3.002	B
1	2.931	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	0.8	13.4	2.181	B
1	3.908	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	1.0	16.1	1.802	B
1	4.885	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	1.2	17.9	1.609	B
1	5.863	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	1.3	19.2	1.493	B
1	6.840	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D
		BOT	STR-I	POS.	30.0	1.4	20.6	1.388	B
1	7.817	TOP	STR-I	POS.	-10.3	-2.4	-33.0	0.240*	B,D

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	21.6	1.321	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.5	-33.0 21.7	0.240* 1.312	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.6	-33.0 21.3	0.240* 1.334	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.6	-33.0 21.3	0.240* 1.334	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.5	-33.0 21.7	0.240* 1.312	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.5	-33.0 21.6	0.240* 1.321	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.4	-33.0 20.6	0.240* 1.388	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.3	-33.0 19.2	0.240* 1.493	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.2	-33.0 17.9	0.240* 1.609	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 1.0	-33.0 16.1	0.240* 1.802	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 0.8	-33.0 13.4	0.240* 2.181	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 0.6	-33.0 9.8	0.240* 3.002	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.3 30.0	-2.4 0.3	-33.0 5.6	0.240* 5.308	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 0.2	-33.0 4.4	0.243* 6.741	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 0.2	-33.0 4.3	0.243* 6.909	B,D B

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.5	-2.4	-33.0	0.277*	D
1	18.565	TOP	STR-I	POS.	-11.5	-2.4	-33.0	0.277*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	47.09	0.771	C
1	0.417L	STR-I	POS.	37.40	1.05	45.56	0.798	C
1	0.417R	STR-I	POS.	0.41	1.05	45.56	-0.014	A,C
1	0.977	STR-I	POS.	0.41	0.98	43.51	-0.013	A,C
1	1.000L	STR-I	POS.	0.41	0.98	43.42	-0.013	A,C
1	1.000R	STR-I	POS.	98.14	0.98	43.42	2.237	
1	1.954	STR-I	POS.	98.14	0.87	39.92	2.436	
1	2.931	STR-I	POS.	98.14	0.77	36.34	2.679	
1	3.908	STR-I	POS.	98.14	0.66	32.76	2.975	
1	4.885	STR-I	POS.	98.14	0.55	29.18	3.344	
1	5.863	STR-I	POS.	98.14	0.44	26.08	3.746	
1	6.840	STR-I	POS.	98.14	0.33	23.90	4.092	

Madawaska Critical Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	21.72	4.508	
1	8.794	STR-I	POS.	98.14	0.11	19.54	5.017	
1	9.771L	STR-I	POS.	98.14	0.00	17.36	5.653	
1	9.771R	STR-I	POS.	98.14	0.00	17.36	5.653	
1	10.748	STR-I	NEG.	98.14	-0.11	-19.54	5.017	
1	11.725	STR-I	NEG.	98.14	-0.22	-21.72	4.508	
1	12.702	STR-I	NEG.	98.14	-0.33	-23.90	4.092	
1	13.679	STR-I	NEG.	98.14	-0.44	-26.08	3.746	
1	14.656	STR-I	NEG.	98.14	-0.55	-29.18	3.344	
1	15.633	STR-I	NEG.	98.14	-0.66	-32.76	2.975	
1	16.610	STR-I	NEG.	98.14	-0.77	-36.34	2.679	
1	17.588	STR-I	NEG.	98.14	-0.87	-39.92	2.436	
1	18.515L	STR-I	NEG.	98.14	-0.98	-43.32	2.243	
1	18.515R	STR-I	NEG.	98.14	-0.98	-43.32	2.243	
1	18.542L	STR-I	NEG.	98.14	-0.98	-43.42	2.237	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.42	2.237	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.51	2.233	
1	19.542	STR-I	NEG.	98.14	-1.09	-47.09	2.061	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.75	-0.004085
	LL (SPECIAL #2)	0.00	32.79	-0.004085
	LL (SPECIAL #3)	0.00	32.38	-0.004085
	LL (SPECIAL #4)	0.00	32.47	-0.003600
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.75	0.004085
	LL (SPECIAL #2)	0.00	32.79	0.004085
	LL (SPECIAL #3)	0.00	32.38	0.004085
	LL (SPECIAL #4)	0.00	32.47	0.003600

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69
2	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	
2	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	

Note: Impact must be added for pier cap design

Madawaska Critical Stringer MaineDOT Trucks 1-4
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Shear		-0.014	0.0	1	0.417R	STR-I
Operating	Not Applicable						
SPECIAL #2							
Inventory	Shear		-0.014	0.0	1	0.417R	STR-I
Operating	Not Applicable						
SPECIAL #3							
Inventory	Shear		-0.014	0.0	1	0.417R	STR-I
Operating	Not Applicable						
SPECIAL #4							
Inventory	Shear		-0.014	0.0	1	0.417R	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY	Dist. Fact.	0.600	0.600	0.600	0.600
RATING	Loc. (ft)	0.417R	0.417R	0.417R	0.417R
(IR)	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	-0.01S	-0.01S	-0.01S	-0.01S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING	Dist. Fact.	---	---	---	---
RATING	Loc. (ft)	---	---	---	---
(OR)	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					171.46
Location (ft)					18.54R
Maximum Factored Shear Resistance (kips)					98.14
Location (ft)					1.00R
					Span Length(ft) = 19.54

Madawaska Critical Stringer MaineDOT Trucks 1-4
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer MainedOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Critical Stringer MaineDOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
UNCURED SLAB WEB SPECIFICATION CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #2

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #3

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #4

Madawaska Critical Stringer MaineDOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES (cont.)

SPECIAL #4(cont.)

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer MaineDOT Trucks 1-4

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical MaineDOT Trucks 1-4.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	14
BEAM GEOMETRY.....	14
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	14
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	14
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	14
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	15
SKEW ANGLES.....	15
SPAN LENGTHS.....	15
MATERIAL PROPERTIES.....	15
PLATE GIRDER PROPERTIES, PART 1 of 2.....	15
PLATE GIRDER PROPERTIES, PART 2 of 2.....	15
SECTION LOSSES.....	16
SLAB PROPERTIES, PART 1 OF 2.....	16
SLAB PROPERTIES, PART 2 OF 2.....	17
LOAD FACTORS.....	17
DISTRIBUTED LOADS (DC1).....	17
SPECIAL LIVE LOADING.....	17
SPECIAL AXLE LOAD.....	17
BRACE POINTS.....	18
SYSTEM SETTINGS.....	18
SECTION PROPERTIES.....	19
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	19
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	19
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	20
ANALYSIS.....	22
LOAD FACTORS AND COMBINATIONS.....	22
LIVE LOADING SUMMARY.....	22
LOAD MODIFIER.....	22
RESISTANCE FACTORS.....	23
DEAD LOADS.....	23
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	23
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	24

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	24
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	24
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	24
BEAM WEIGHT ANALYSIS - REACTIONS.....	25
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	25
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	26
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	26
TOTAL DC1 ANALYSIS - REACTIONS.....	27
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	27
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	28
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	29
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	29
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	29
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	29
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	30
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	31
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	31
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	31
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	31
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	32
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	33
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	33
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	33
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	33
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	34
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	35
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	35
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	35
SPECIAL #1 - ANALYSIS.....	36
UNFACTORED FLEXURAL STRESSES.....	36
USER INPUT LATERAL STRESSES.....	48
FACTORED ANALYSIS RESULTS.....	49
FACTORED LATERAL STRESSES.....	56
SPECIAL #1 - SPECIFICATION CHECKING.....	57
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	57
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	58
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	60
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	68
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	73
FLANGE LATERAL CAPACITY.....	79
NET SECTION FRACTURE CHECK.....	79
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	79

SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	84
SHEAR CAPACITY.....	87
SPECIAL #1 - RATINGS W/O FWS.....	93
RATING FACTORS - SUMMARY.....	93
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	93
RATING FACTORS - SHEAR CAPACITY.....	95
SPECIAL #2 - ANALYSIS.....	97
UNFACTORED FLEXURAL STRESSES.....	97
USER INPUT LATERAL STRESSES.....	99
FACTORED ANALYSIS RESULTS.....	99
FACTORED LATERAL STRESSES.....	101
SPECIAL #2 - SPECIFICATION CHECKING.....	102
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	102
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	102
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	103
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	106
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	108
FLANGE LATERAL CAPACITY.....	110
NET SECTION FRACTURE CHECK.....	110
SHEAR CAPACITY.....	111
SPECIAL #2 - RATINGS W/O FWS.....	113
RATING FACTORS - SUMMARY.....	113
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	113
RATING FACTORS - SHEAR CAPACITY.....	115
SPECIAL #3 - ANALYSIS.....	117
UNFACTORED FLEXURAL STRESSES.....	117
USER INPUT LATERAL STRESSES.....	119
FACTORED ANALYSIS RESULTS.....	119
FACTORED LATERAL STRESSES.....	121
SPECIAL #3 - SPECIFICATION CHECKING.....	122
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	122
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	122
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	123
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	126
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	128
FLANGE LATERAL CAPACITY.....	130
NET SECTION FRACTURE CHECK.....	130
SHEAR CAPACITY.....	131
SPECIAL #3 - RATINGS W/O FWS.....	133
RATING FACTORS - SUMMARY.....	133
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	133

RATING FACTORS - SHEAR CAPACITY.....	135
SPECIAL #4 - ANALYSIS.....	137
UNFACTORED FLEXURAL STRESSES.....	137
USER INPUT LATERAL STRESSES.....	139
FACTORED ANALYSIS RESULTS.....	139
FACTORED LATERAL STRESSES.....	141
SPECIAL #4 - SPECIFICATION CHECKING.....	142
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	142
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	142
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	143
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	146
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	148
FLANGE LATERAL CAPACITY.....	150
NET SECTION FRACTURE CHECK.....	150
SHEAR CAPACITY.....	151
SPECIAL #4 - RATINGS W/O FWS.....	153
RATING FACTORS - SUMMARY.....	153
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	153
RATING FACTORS - SHEAR CAPACITY.....	155
SUMMARY - OVERALL REACTIONS.....	157
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	157
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	158
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	159
DL REACTIONS (UNFACTORED) PER GIRDER.....	159
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	159
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	160
DL REACTIONS (UNFACTORED) PER GIRDER.....	160
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	160
OVERALL RATING SUMMARY W/O FWS.....	161
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	161
BRIDGE LOAD RATINGS W/O FWS.....	161
SUMMARY - SPECIFICATION CHECKS.....	163
SPECIFICATION CHECK WARNINGS.....	163
SPECIFICATION CHECK FAILURES.....	164

CRITICAL SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 5-8

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated      09/08/2016
*   Documentation      09/2016
*   License No.       332672
*
*****
*
*   Madawaska Critical Stringer MaineDOT Trucks 5-8
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
*****
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Madawaska Critical Stringer MaineDOT Trucks 5-8
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Critical Stringer MaineDOT Trucks 5-8
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Critical Stringer MaineDOT Trucks 5-8
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,2.125,1.25,0.622,BP,T,2.125,1.25,0.622,TP,B,-2.125,1.25,0.622
SLS 1,0.41666,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.25
SLS 1,0,1,0.41666,W,R,12.756,2,0.25,W,L,12.756,2,0.125,W,L,2.5,5,0.41
SLS 1,0,1,0.41666,W,L,8.378,6.76,0.041,W,R,8.378,6.76,0.041
SLS 1,1,1,18.5416,TP,B,-2,1.5,0.622,TP,B,2.25,1,0.622,TP,B,-0.7275,1.045,0.46575
SLS 1,1,1,18.5146,TP,B,0.9775,1.545,.4345,BP,T,-1.4775,2.545,0.15475,BP,T,1.4775,2.545,0.15475
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,22,4,22,16,17,4,17,0
SLL 2,N,0,0
SAL 2,11.9,9,21.3,4,21.4,4,21.3,0
SLL 3,N,0,0
SAL 3,13.4,10,23,4,23,0
SLL 4,N,0,0
SAL 4,13.2,10,24.2,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Critical Stringer MaineDOT Trucks 5-8
INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0         (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.33       (default)
FATIGUE DYN. LOAD ALLOW.       1.15       (default)
PA TRAFFIC FACTOR              1.20       (default)
REDISTRIBUTE NEG. MOMENTS      N          (default)
IMPORTANCE FACTOR              1.0         (default)
DUCTILITY FACTOR               1.0         (default)
REDUNDANCY FACTOR              1.0         (default)
REDUNDANT LOAD PATH            R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.          1.20       (default)
SKEW ANGLE DESIGNATION         P          (default)
CONSTANT LATERAL STRESS        0. ksi    (default)
DC1S PERCENTAGE                0.         (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
    %WARNING - <GEO>:
        Real value out of range
        The value entered for BEAM/STRINGER SPACING is
        less than the lower range limit.
        Value Entered: 2.583
        Valid values are between 3. and 18.
DECK OVERHANG                   * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS           N          (default)
NO. OF DESIGN LANES             2
DEFLECTION DF                   *          (computed, if necessary)
SDWK NO. OF DESIGN LANES        *          (computed, if necessary)
SDWK DEFLECTION DF              *          (computed, if necessary)

```

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: SPL
SPAN NUMBER          1
SPAN LENGTH          19.54166666 ft

COMMAND: MAT
MATERIAL ID NUMBER    1
NONCOMPOSITE/COMPOSITE  N
WEB YIELD STRENGTH    30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi      (default)
WEB TENSILE STRENGTH   * ksi      (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi      (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi      (computed, if necessary)

COMMAND: APL
START SPAN NUMBER     1
START DISTANCE         0 ft
END SPAN NUMBER        1
END DISTANCE           19.5416 ft
MATERIAL ID NUMBER     1
WEB DEPTH VARIATION     C
WEB DEPTH              13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.             0.41 in
TOP PLATE WIDTH        5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.       0.622 in
BOT. PLATE WIDTH       5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.      0.622 in
HAUNCH DEPTH           0. in      (default)
DECK REINF. AREA       0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in      (default)
    
```

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS	
START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in
COMMAND: SLS	
START SPAN NUMBER	1
START LOSS DISTANCE	0.41666 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.25 in

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.25 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	12.756 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	2.5 in
WIDTH	5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	0.41666 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	8.378 in
WIDTH	6.76 in
THICKNESS	0.041 in

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2 in
WIDTH	1.5 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-0.7275 in
WIDTH	1.045 in
THICKNESS	0.46575 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5146 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	0.9775 in
WIDTH	1.545 in
THICKNESS	.4345 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15475 in

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH          4 ksi
CONC. DENSITY FOR LOADS    0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.45
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: DLD
 LOAD TYPE DC1
 START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.541666666 ft
 START MAGNITUDE 0.047 kip/ft
 END MAGNITUDE 0.047 kip/ft

COMMAND: SLL
 SPECIAL LL NUMBER 1
 AXLE EFFECT N
 LANE LOAD 0 kip/ft
 PERCENT INCREASE 0

COMMAND: SAL
 SPECIAL LL NUMBER 1
 AXLE LOAD 10 kip
 AXLE SPACING 10 ft
 AXLE LOAD 22 kip
 AXLE SPACING 4 ft
 AXLE LOAD 22 kip
 AXLE SPACING 16 ft
 AXLE LOAD 17 kip
 AXLE SPACING 4 ft
 AXLE LOAD 17 kip
 AXLE SPACING 0 ft

COMMAND: SLL
 SPECIAL LL NUMBER 2
 AXLE EFFECT N
 LANE LOAD 0 kip/ft
 PERCENT INCREASE 0

COMMAND: SAL
 SPECIAL LL NUMBER 2
 AXLE LOAD 11.9 kip
 AXLE SPACING 9 ft
 AXLE LOAD 21.3 kip
 AXLE SPACING 4 ft
 AXLE LOAD 21.4 kip
 AXLE SPACING 4 ft
 AXLE LOAD 21.3 kip
 AXLE SPACING 0 ft

Madawaska Critical Stringer MaineDOT Trucks 5-8
INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLL
SPECIAL LL NUMBER      3
AXLE EFFECT            N
LANE LOAD              0 kip/ft
PERCENT INCREASE       0

COMMAND:  SAL
SPECIAL LL NUMBER      3
AXLE LOAD              13.4 kip
AXLE SPACING           10 ft
AXLE LOAD              23 kip
AXLE SPACING           4 ft
AXLE LOAD              23 kip
AXLE SPACING           0 ft

COMMAND:  SLL
SPECIAL LL NUMBER      4
AXLE EFFECT            N
LANE LOAD              0 kip/ft
PERCENT INCREASE       0

COMMAND:  SAL
SPECIAL LL NUMBER      4
AXLE LOAD              13.2 kip
AXLE SPACING           10 ft
AXLE LOAD              24.2 kip
AXLE SPACING           0 ft

COMMAND:  BRP
START SPAN NUMBER      1
START SPAN DISTANCE    0 ft
END SPAN NUMBER        1
END SPAN DISTANCE     19.5417 ft
BRACE SPACING          9.77 ft

COMMAND:  OIN
INPUT FILE ECHO        1
INPUT COMMANDS         1
INPUT SUMMARY          1

```

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO	* (computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y (default)
AASHTO/PENNDOT SPECS	P (default)
PRINT DIMENSION FILE	N (default)

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
 The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V R	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	0.417	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.515	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	0.417	0.000	0.000	0.000
1	1.000	0.000	0.000	0.000
1	18.515	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	0.417	Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Right	12.756	2.000	0.2500
				Web	Left	12.756	2.000	0.1250
				Web	Left	2.500	5.000	0.4100
				Web	Left	8.378	6.760	0.0410
1	0.417	1	1.000	Web	Right	8.378	6.760	0.0410
				Top Plate	Bottom	2.125	1.250	0.6220
				Bottom Plate	Top	2.125	1.250	0.6220
				Top Plate	Bottom	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.2500

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	1.000	1	18.515	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658
				Top Plate	Bottom	0.978	1.545	0.4345
				Bottom Plate	Top	-1.477	2.545	0.1548
				Bottom Plate	Top	1.477	2.545	0.1548
1	18.515	1	18.542	Top Plate	Bottom	-2.000	1.500	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Top Plate	Bottom	-0.728	1.045	0.4658

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	22.000	4.000	22.000	16.000	17.000	4.000
	17.000	0.000						
2	11.900	9.000	21.300	4.000	21.400	4.000	21.300	0.000
3	13.400	10.000	23.000	4.000	23.000	0.000		
4	13.200	10.000	24.200	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Critical Stringer MaineDOT Trucks 5-8

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417L	249.	7.227	7.773	N/A	N/A	34.	32.	N/A	N/A
1	0.417R	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	0.977	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000L	235.	6.380	8.620	N/A	N/A	37.	27.	N/A	N/A
1	1.000R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	1.954	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	2.931	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	3.908	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	4.885	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	5.863	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	6.840	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	7.817	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	8.794	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	9.771R	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	10.748	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	11.725	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	12.702	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	13.679	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	14.656	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	15.633	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	16.610	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	17.588	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515L	244.	5.950	9.050	N/A	N/A	41.	27.	N/A	N/A
1	18.515R	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542L	317.	6.098	8.902	N/A	N/A	52.	36.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417L	6.80	0.000	1.	4.	6.	0.942	0.866
1	0.417R	4.99	0.000	1.	4.	6.	1.082	0.866
1	0.977	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000L	4.99	0.000	1.	4.	6.	1.082	0.866
1	1.000R	8.98	0.000	0.	6.	7.	0.882	0.753
1	1.954	8.98	0.000	0.	6.	7.	0.882	0.753

Madawaska Critical Stringer MaineDOT Trucks 5-8
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	2.931	8.98	0.000	0.	6.	7.	0.882	0.753
1	3.908	8.98	0.000	0.	6.	7.	0.882	0.753
1	4.885	8.98	0.000	0.	6.	7.	0.882	0.753
1	5.863	8.98	0.000	0.	6.	7.	0.882	0.753
1	6.840	8.98	0.000	0.	6.	7.	0.882	0.753
1	7.817	8.98	0.000	0.	6.	7.	0.882	0.753
1	8.794	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771L	8.98	0.000	0.	6.	7.	0.882	0.753
1	9.771R	8.98	0.000	0.	6.	7.	0.882	0.753
1	10.748	8.98	0.000	0.	6.	7.	0.882	0.753
1	11.725	8.98	0.000	0.	6.	7.	0.882	0.753
1	12.702	8.98	0.000	0.	6.	7.	0.882	0.753
1	13.679	8.98	0.000	0.	6.	7.	0.882	0.753
1	14.656	8.98	0.000	0.	6.	7.	0.882	0.753
1	15.633	8.98	0.000	0.	6.	7.	0.882	0.753
1	16.610	8.98	0.000	0.	6.	7.	0.882	0.753
1	17.588	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515L	8.98	0.000	0.	6.	7.	0.882	0.753
1	18.515R	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542L	10.44	0.000	1.	9.	10.	0.971	0.726
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment M _p (k-ft)	Depth of Web, D _{cp} (in)		
1	0.000	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417L	N/A	N/A	120.6	3.747	N/A	1.00
1	0.417R	N/A	N/A	153.8	6.146	N/A	0.86
1	0.977	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000L	N/A	N/A	153.8	6.146	N/A	0.86
1	1.000R	N/A	N/A	151.9	6.292	N/A	1.49
1	1.954	N/A	N/A	151.9	6.292	N/A	1.49
1	2.931	N/A	N/A	151.9	6.292	N/A	1.49
1	3.908	N/A	N/A	151.9	6.292	N/A	1.49
1	4.885	N/A	N/A	151.9	6.292	N/A	1.49
1	5.863	N/A	N/A	151.9	6.292	N/A	1.49
1	6.840	N/A	N/A	151.9	6.292	N/A	1.49
1	7.817	N/A	N/A	151.9	6.292	N/A	1.49
1	8.794	N/A	N/A	151.9	6.292	N/A	1.49

Madawaska Critical Stringer MainedOT Trucks 5-8SECTION PROPERTIES (cont.)
-----ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	9.771L	N/A	N/A	151.9	6.292	N/A	1.49
1	9.771R	N/A	N/A	151.9	6.292	N/A	1.49
1	10.748	N/A	N/A	151.9	6.292	N/A	1.49
1	11.725	N/A	N/A	151.9	6.292	N/A	1.49
1	12.702	N/A	N/A	151.9	6.292	N/A	1.49
1	13.679	N/A	N/A	151.9	6.292	N/A	1.49
1	14.656	N/A	N/A	151.9	6.292	N/A	1.49
1	15.633	N/A	N/A	151.9	6.292	N/A	1.49
1	16.610	N/A	N/A	151.9	6.292	N/A	1.49
1	17.588	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515L	N/A	N/A	151.9	6.292	N/A	1.49
1	18.515R	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542L	N/A	N/A	167.2	7.160	N/A	1.73
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Critical Stringer MainedOT Trucks 5-8
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.417	0.042	0.000	0.000
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.515	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution
	Factor	Comment*	Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.417L	0.2	0.40	0.001
1	0.417R	0.2	0.40	0.001
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005

Madawaska Critical Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	17.588	0.7	-0.33	0.003
1	18.515L	0.4	-0.37	0.002
1	18.515R	0.4	-0.37	0.002
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.417L	0.2	0.44	0.001
1	0.417R	0.2	0.44	0.001
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004

Madawaska Critical Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515L	0.4	-0.41	0.002
1	18.515R	0.4	-0.41	0.002
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.417L	0.4	0.84	0.002
1	0.417R	0.4	0.84	0.002
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.515L	0.9	-0.78	0.004

Madawaska Critical Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	18.515R	0.9	-0.78	0.004
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	5.9	32.86	0.0	0.00
1	0.417R	5.9	32.86	0.0	0.00
1	0.977	13.3	31.63	0.0	0.00
1	1.000L	13.6	31.58	0.0	0.00
1	1.000R	13.6	31.58	0.0	0.00
1	1.954	24.8	29.47	0.0	0.00
1	2.931	34.4	27.32	0.0	0.00
1	3.908	42.3	25.16	0.0	0.00
1	4.885	48.3	23.01	0.0	0.00
1	5.863	52.9	20.98	0.0	0.00
1	6.840	56.6	1.67	0.0	0.00
1	7.817	58.7	17.47	0.0	0.00
1	8.794	59.4	15.72	0.0	0.00
1	9.771L	58.7	-13.96	0.0	0.00
1	9.771R	58.7	-13.96	0.0	0.00
1	10.748	59.4	-15.72	0.0	0.00
1	11.725	58.7	-17.47	0.0	0.00
1	12.702	56.6	-19.23	0.0	0.00
1	13.679	52.9	-20.98	0.0	0.00
1	14.656	48.3	-23.01	0.0	0.00
1	15.633	42.3	-25.16	0.0	0.00
1	16.610	34.4	-27.32	0.0	0.00
1	17.588	24.8	-29.47	0.0	0.00
1	18.515L	13.9	-31.52	0.0	0.00
1	18.515R	13.9	-31.52	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	18.542L	13.6	-31.58	0.0	0.00
1	18.542R	13.6	-31.58	0.0	0.00
1	18.565	13.3	-31.63	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	33.78	0.0	0.00	0.0	0.000
1	0.417L	32.86	5.9	-0.37	3.1	0.017
1	0.417R	32.86	5.9	-0.37	3.1	0.017
1	0.977	31.63	13.3	-0.88	7.0	0.039
1	1.000L	31.58	13.6	-0.90	7.2	0.040
1	1.000R	31.58	13.6	-0.90	7.2	0.040
1	1.954	29.47	24.8	-1.76	13.3	0.078
1	2.931	27.32	34.4	-2.63	18.8	0.114
1	3.908	25.16	42.3	-3.51	23.6	0.146
1	4.885	23.01	48.3	-5.18	32.7	0.175
1	5.863	20.98	52.9	-6.94	40.8	0.198
1	6.840	19.23	56.6	-8.70	47.5	0.220
1	7.817	17.47	58.7	-10.45	52.7	0.237
1	8.794	15.72	59.4	-12.21	56.4	0.242
1	9.771L	13.96	58.7	-13.96	58.7	0.242
1	9.771R	13.96	58.7	-13.96	58.7	0.242
1	10.748	12.21	56.4	-15.72	59.4	0.242
1	11.725	10.45	52.7	-17.47	58.7	0.237
1	12.702	8.70	47.5	-19.23	56.6	0.220
1	13.679	6.94	40.8	-20.98	52.9	0.198
1	14.656	5.18	32.7	-23.01	48.3	0.175
1	15.633	3.51	23.6	-25.16	42.3	0.146
1	16.610	2.63	18.8	-27.32	34.4	0.114
1	17.588	1.76	13.3	-29.47	24.8	0.078
1	18.515L	0.92	7.3	-31.52	13.9	0.041
1	18.515R	0.92	7.3	-31.52	13.9	0.041
1	18.542L	0.90	7.2	-31.58	13.6	0.040
1	18.542R	0.90	7.2	-31.58	13.6	0.040
1	18.565	0.88	7.0	-31.63	13.3	0.039
1	19.542	0.00	0.0	-33.78	0.0	0.000

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	33.78	0.00	0.000000	-0.003865
2	33.78	0.00	0.003865	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	42.33	0.00	0.00	0.00
2	42.33	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011264
2	0.011264	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	7.3	40.56	0.0	0.00
1	0.417R	7.3	40.56	0.0	0.00
1	0.977	16.3	38.82	0.0	0.00
1	1.000L	16.7	38.75	0.0	0.00
1	1.000R	16.7	38.75	0.0	0.00
1	1.954	30.1	35.80	0.0	0.00
1	2.931	41.5	32.96	0.0	0.00
1	3.908	51.1	30.40	0.0	0.00
1	4.885	58.5	27.85	0.0	0.00
1	5.863	63.8	25.30	0.0	0.00
1	6.840	68.4	-0.88	0.0	0.00
1	7.817	73.8	13.65	0.0	0.00
1	8.794	77.0	11.09	0.0	0.00
1	9.771L	78.1	-8.54	0.0	0.00
1	9.771R	78.1	-8.54	0.0	0.00
1	10.748	77.0	-11.09	0.0	0.00
1	11.725	73.8	-13.65	0.0	0.00
1	12.702	68.4	-16.20	0.0	0.00
1	13.679	63.8	-25.30	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	14.656	58.5	-27.85	0.0	0.00
1	15.633	51.1	-30.40	0.0	0.00
1	16.610	41.5	-32.96	0.0	0.00
1	17.588	30.1	-35.80	0.0	0.00
1	18.515L	17.1	-38.67	0.0	0.00
1	18.515R	17.1	-38.67	0.0	0.00
1	18.542L	16.7	-38.75	0.0	0.00
1	18.542R	16.7	-38.75	0.0	0.00
1	18.565	16.3	-38.82	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	41.85	0.0	0.00	0.0	0.000
1	0.417L	40.56	7.3	-0.36	3.0	0.022
1	0.417R	40.56	7.3	-0.36	3.0	0.022
1	0.977	38.82	16.3	-0.85	6.8	0.053
1	1.000L	38.75	16.7	-0.87	7.0	0.054
1	1.000R	38.75	16.7	-0.87	7.0	0.054
1	1.954	35.80	30.1	-1.71	12.9	0.105
1	2.931	32.96	41.5	-2.56	18.3	0.154
1	3.908	30.40	51.1	-3.42	23.0	0.200
1	4.885	27.85	58.5	-5.04	31.8	0.240
1	5.863	25.30	63.8	-6.74	39.7	0.274
1	6.840	22.74	66.9	-8.45	46.1	0.300
1	7.817	20.19	67.9	-10.15	51.2	0.320
1	8.794	17.64	66.7	-12.53	57.9	0.334
1	9.771L	15.08	63.4	-15.08	63.4	0.338
1	9.771R	15.08	63.4	-15.08	63.4	0.338
1	10.748	12.53	57.9	-17.64	66.7	0.334
1	11.725	10.15	51.2	-20.19	67.9	0.320
1	12.702	8.45	46.1	-22.74	66.9	0.300
1	13.679	6.74	39.7	-25.30	63.8	0.274
1	14.656	5.04	31.8	-27.85	58.5	0.240
1	15.633	3.42	23.0	-30.40	51.1	0.200
1	16.610	2.56	18.3	-32.96	41.5	0.154
1	17.588	1.71	12.9	-35.80	30.1	0.105
1	18.515L	0.90	7.1	-38.67	17.1	0.055
1	18.515R	0.90	7.1	-38.67	17.1	0.055
1	18.542L	0.87	7.0	-38.75	16.7	0.054
1	18.542R	0.87	7.0	-38.75	16.7	0.054

Madawaska Critical Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simultaneous Moment (k-ft)	Maximum Negative Shear (kips)	Simultaneous Moment (k-ft)	Maximum Deflect. (in)
1	18.565	0.85	6.8	-38.82	16.3	0.053
1	19.542	0.00	0.0	-41.85	0.0	0.000

SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	41.85	0.00	0.000000	-0.005228
2	41.85	0.00	0.005228	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	52.45	0.00	0.00	0.00
2	52.45	0.00	0.00	0.00

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.015237
2	0.015237	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simultaneous Shear (kips)	Maximum Negative Moment (k-ft)	Simultaneous Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	6.3	34.97	0.0	0.00
1	0.417R	6.3	34.97	0.0	0.00
1	0.977	14.1	33.61	0.0	0.00
1	1.000L	14.4	33.56	0.0	0.00
1	1.000R	14.4	33.56	0.0	0.00
1	1.954	26.3	31.24	0.0	0.00
1	2.931	36.4	28.87	0.0	0.00
1	3.908	44.5	26.50	0.0	0.00
1	4.885	50.7	24.13	0.0	0.00
1	5.863	55.3	21.94	0.0	0.00
1	6.840	59.1	1.75	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	7.817	61.4	18.27	0.0	0.00
1	8.794	62.1	16.43	0.0	0.00
1	9.771L	61.3	-14.60	0.0	0.00
1	9.771R	61.3	-14.60	0.0	0.00
1	10.748	62.1	-16.43	0.0	0.00
1	11.725	61.4	-18.27	0.0	0.00
1	12.702	59.1	-20.10	0.0	0.00
1	13.679	55.3	-21.94	0.0	0.00
1	14.656	50.7	-24.13	0.0	0.00
1	15.633	44.5	-26.50	0.0	0.00
1	16.610	36.4	-28.87	0.0	0.00
1	17.588	26.3	-31.24	0.0	0.00
1	18.515L	14.8	-33.49	0.0	0.00
1	18.515R	14.8	-33.49	0.0	0.00
1	18.542L	14.4	-33.56	0.0	0.00
1	18.542R	14.4	-33.56	0.0	0.00
1	18.565	14.1	-33.61	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	35.98	0.0	0.00	0.0	0.000
1	0.417L	34.97	6.3	-0.39	3.2	0.018
1	0.417R	34.97	6.3	-0.39	3.2	0.018
1	0.977	33.61	14.1	-0.92	7.3	0.041
1	1.000L	33.56	14.4	-0.94	7.5	0.042
1	1.000R	33.56	14.4	-0.94	7.5	0.042
1	1.954	31.24	26.3	-1.84	13.9	0.082
1	2.931	28.87	36.4	-2.75	19.7	0.120
1	3.908	26.50	44.5	-3.67	24.7	0.154
1	4.885	24.13	50.7	-5.42	34.2	0.184
1	5.863	21.94	55.3	-7.26	42.7	0.209
1	6.840	20.10	59.1	-9.09	49.7	0.230
1	7.817	18.27	61.4	-10.93	55.1	0.248
1	8.794	16.43	62.1	-12.76	59.0	0.253
1	9.771L	14.60	61.3	-14.60	61.3	0.253
1	9.771R	14.60	61.3	-14.60	61.3	0.253
1	10.748	12.76	59.0	-16.43	62.1	0.253
1	11.725	10.93	55.1	-18.27	61.4	0.248
1	12.702	9.09	49.7	-20.10	59.1	0.230
1	13.679	7.26	42.7	-21.94	55.3	0.209

Madawaska Critical Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simultaneous Moment (k-ft)	Maximum Negative Shear (kips)	Simultaneous Moment (k-ft)	Maximum Deflect. (in)
1	14.656	5.42	34.2	-24.13	50.7	0.184
1	15.633	3.67	24.7	-26.50	44.5	0.154
1	16.610	2.75	19.7	-28.87	36.4	0.120
1	17.588	1.84	13.9	-31.24	26.3	0.082
1	18.515L	0.96	7.7	-33.49	14.8	0.043
1	18.515R	0.96	7.7	-33.49	14.8	0.043
1	18.542L	0.94	7.5	-33.56	14.4	0.042
1	18.542R	0.94	7.5	-33.56	14.4	0.042
1	18.565	0.92	7.3	-33.61	14.1	0.041
1	19.542	0.00	0.0	-35.98	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	35.98	0.00	0.000000	-0.004106
2	35.98	0.00	0.004106	0.000000

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	45.09	0.00	0.00	0.00
2	45.09	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011966
2	0.011966	0.000000

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simultaneous Shear (kips)	Maximum Negative Moment (k-ft)	Simultaneous Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.417L	4.3	23.82	0.0	0.00
1	0.417R	4.3	23.82	0.0	0.00
1	0.977	9.6	22.96	0.0	0.00

Madawaska Critical Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	1.000L	9.9	22.93	0.0	0.00
1	1.000R	9.9	22.93	0.0	0.00
1	1.954	18.0	21.47	0.0	0.00
1	2.931	25.2	19.98	0.0	0.00
1	3.908	31.1	18.49	0.0	0.00
1	4.885	35.7	16.99	0.0	0.00
1	5.863	39.1	15.50	0.0	0.00
1	6.840	41.2	-5.30	0.0	0.00
1	7.817	42.1	12.52	0.0	0.00
1	8.794	41.7	11.02	0.0	0.00
1	9.771L	40.6	-9.66	0.0	0.00
1	9.771R	40.6	-9.66	0.0	0.00
1	10.748	41.7	-11.02	0.0	0.00
1	11.725	42.1	-12.52	0.0	0.00
1	12.702	41.2	-14.01	0.0	0.00
1	13.679	39.1	-15.50	0.0	0.00
1	14.656	35.7	-16.99	0.0	0.00
1	15.633	31.1	-18.49	0.0	0.00
1	16.610	25.2	-19.98	0.0	0.00
1	17.588	18.0	-21.47	0.0	0.00
1	18.515L	10.1	-22.89	0.0	0.00
1	18.515R	10.1	-22.89	0.0	0.00
1	18.542L	9.9	-22.93	0.0	0.00
1	18.542R	9.9	-22.93	0.0	0.00
1	18.565	9.6	-22.96	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	24.45	0.0	0.00	0.0	0.000
1	0.417L	23.82	4.3	-0.41	3.4	0.012
1	0.417R	23.82	4.3	-0.41	3.4	0.012
1	0.977	22.96	9.6	-0.97	7.7	0.027
1	1.000L	22.93	9.9	-0.99	7.9	0.028
1	1.000R	22.93	9.9	-0.99	7.9	0.028
1	1.954	21.47	18.0	-1.93	14.6	0.053
1	2.931	19.98	25.2	-2.90	20.7	0.078
1	3.908	18.49	31.1	-3.86	26.0	0.101
1	4.885	16.99	35.7	-4.83	30.4	0.121
1	5.863	15.50	39.1	-5.79	34.1	0.138
1	6.840	14.01	41.2	-6.76	36.9	0.150

Madawaska Critical Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	7.817	12.52	42.1	-7.72	38.9	0.159
1	8.794	11.02	41.7	-8.69	40.2	0.163
1	9.771L	9.66	40.6	-9.66	40.6	0.163
1	9.771R	9.66	40.6	-9.66	40.6	0.163
1	10.748	8.69	40.2	-11.02	41.7	0.163
1	11.725	7.72	38.9	-12.52	42.1	0.159
1	12.702	6.76	36.9	-14.01	41.2	0.150
1	13.679	5.79	34.1	-15.50	39.1	0.138
1	14.656	4.83	30.4	-16.99	35.7	0.121
1	15.633	3.86	26.0	-18.49	31.1	0.101
1	16.610	2.90	20.7	-19.98	25.2	0.078
1	17.588	1.93	14.6	-21.47	18.0	0.053
1	18.515L	1.02	8.1	-22.89	10.1	0.028
1	18.515R	1.02	8.1	-22.89	10.1	0.028
1	18.542L	0.99	7.9	-22.93	9.9	0.028
1	18.542R	0.99	7.9	-22.93	9.9	0.028
1	18.565	0.97	7.7	-22.96	9.6	0.027
1	19.542	0.00	0.0	-24.45	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	24.45	0.00	0.000000	-0.002695
2	24.45	0.00	0.002695	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	30.65	0.00	0.00	0.00
2	30.65	0.00	0.00	0.00

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.007855
2	0.007855	0.000000

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			STR-IA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			STR-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			STR-III	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			STR-IV	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			STR-V	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			SERV-II	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			SERV-IIA	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
			SERV-IIB	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.2	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.1	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.417R	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-III	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-IV	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			STR-V	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-II	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIA	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
			SERV-IIB	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.9	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.3	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.4	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	2.931	TOP	STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
		BOT	SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	4.885	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
1	5.863	TOP	SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
		BOT	SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	6.840	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
		BOT	STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771L	TOP	STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.1	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-IA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-III	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-IV	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			STR-V	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			SERV-II	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			SERV-IIA	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
			SERV-IIB	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-26.4	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0

Madawaska Critical Stringer MainedOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	BOT	STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
1	11.725	TOP	SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.4	0.0
			STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-III	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-IV	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
		BOT	STR-V	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-II	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIA	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			SERV-IIB	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-26.1	0.0
			STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-IA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-III	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-IV	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-V	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
		BOT	SERV-II	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			SERV-IIA	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			SERV-IIB	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-25.1	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	16.5	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-IA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-III	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-IV	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			STR-V	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			SERV-II	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			SERV-IIA	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
			SERV-IIB	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-23.5	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-IA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-III	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-IV	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			STR-V	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			SERV-II	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			SERV-IIA	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
			SERV-IIB	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-21.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.1	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-IA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-III	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			STR-IV	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	15.633	TOP	STR-V	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			SERV-II	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			SERV-IIA	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
			SERV-IIB	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-18.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	BOT	STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.2	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
		TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.565	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	50.08	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	9.0	48.70	N/A*	-3.37	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	N/A*	-0.20	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	N/A*	-0.17	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.13	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	9.0	48.70	2.93	-3.96	0.00	N/A**	N/A**	
		STR-IA	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-II	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-III	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		STR-IV	POS.	0.5	1.26	0.17	-0.24	0.00	N/A**	N/A**	
		STR-V	POS.	0.4	1.05	0.15	-0.20	0.00	N/A**	N/A**	
		SERV-I	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.4	0.84	0.12	-0.16	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	20.3	46.84	6.62	-8.95	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.40	-0.54	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.33	-0.45	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.26	-0.36	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	20.7	46.77	6.77	-9.14	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	STR-II	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.41	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.34	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.27	-0.37	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	20.7	46.77	6.06	-9.22	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.55	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.46	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.37	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	37.8	43.61	11.06	-16.82	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	52.7	40.38	15.39	-23.41	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	64.7	37.14	18.92	-28.79	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	3.908	STR-IV	POS.	4.1	0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	74.1	33.91	21.66	-32.95	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	81.2	30.87	23.73	-36.10	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	86.9	28.21	25.39	-38.63	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	90.3	25.56	26.39	-40.15	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	1.50	-2.28	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	7.817	SERV-I	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	91.5	22.90	26.74	-40.67	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	90.4	20.25	26.43	-40.20	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	90.4	20.25	26.43	-40.20	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	1.87	-2.85	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	1.56	-2.37	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.25	-1.90	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	91.5	-22.90	26.74	-40.67	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	1.85	-2.82	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	1.55	-2.35	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	SERV-IIA	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.24	-1.88	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	90.3	-25.56	26.39	-40.15	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	1.80	-2.74	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	1.50	-2.28	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.20	-1.82	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	86.9	-28.21	25.39	-38.63	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	1.70	-2.59	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	1.42	-2.16	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	1.14	-1.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	81.2	-30.87	23.73	-36.10	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	1.57	-2.39	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	1.31	-1.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	1.05	-1.60	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	74.1	-33.91	21.66	-32.95	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	1.41	-2.14	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	1.17	-1.78	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	14.656	SERV-IIB	POS.	3.2	-0.44	0.94	-1.42	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	64.7	-37.14	18.92	-28.79	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	1.20	-1.82	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	1.00	-1.52	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.80	-1.22	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	52.7	-40.38	15.39	-23.41	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	0.96	-1.45	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	0.80	-1.21	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.64	-0.97	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	37.8	-43.61	11.06	-16.82	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	0.67	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	0.56	-0.85	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.45	-0.68	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	21.2	-46.68	6.21	-9.45	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.37	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.31	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.25	-0.38	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.515R	STR-I	POS.	21.2	-46.68	4.90	-7.16	0.00	N/A**	N/A**	
		STR-IA	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-II	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-III	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		STR-IV	POS.	1.3	-1.17	0.29	-0.43	0.00	N/A**	N/A**	
		STR-V	POS.	1.1	-0.98	0.25	-0.36	0.00	N/A**	N/A**	
		SERV-I	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-II	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.9	-0.78	0.20	-0.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	20.7	-46.77	4.78	-6.98	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	0.29	-0.42	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	0.24	-0.35	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.19	-0.28	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	20.7	-46.77	N/A*	-4.21	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	20.3	-46.84	N/A*	-4.12	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-50.08	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)
1	19.542	STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IA	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-II	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-III	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-IV	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
		STR-V	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
		STR-IA	POS.	120.6	0.0	D	
		STR-II	POS.	120.6	0.0	D	
		STR-III	POS.	120.6	0.0	D	
		STR-IV	POS.	120.6	0.0	D	
		STR-V	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	9.0	D	
		STR-IA	POS.	120.6	0.4	D	
		STR-II	POS.	120.6	0.4	D	
		STR-III	POS.	120.6	0.4	D	
		STR-IV	POS.	120.6	0.5	D	
		STR-V	POS.	120.6	0.4	D	
1	18.542R	STR-I	POS.	171.5	20.7	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	20.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for $M+$ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.417R	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-4.0	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.2	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	2.9	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.1	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.2	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.1	G	
1	0.977	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-8.9	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.4	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	6.6	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	0.935	63.6	-28.0	-9.1	D	
			STR-IA	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-II	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-III	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-IV	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
		BOT	STR-V	POS.	1.000	0.935	63.6	-28.0	-0.5	D	
			STR-I	POS.	1.000	N/A	91.9	30.0	6.8	G	
			STR-IA	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	91.9	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	91.9	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	91.9	30.0	0.3	G	
1	1.000R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-9.2	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	1.000R	TOP	STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	6.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-16.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	11.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-23.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	15.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	18.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	3.908	BOT	STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-32.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	21.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	23.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-38.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	25.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	6.840	BOT	STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.7	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.3	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.2	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.2	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	9.771R	TOP	STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.7	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.8	D	
		BOT	STR-V	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-I	POS.	1.000	N/A	102.6	30.0	26.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	11.725	TOP	STR-IV	POS.	1.000	1.000	102.6	30.0	1.9	G	
			STR-V	POS.	1.000	1.000	102.6	30.0	1.5	G	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.5	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.8	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.5	G	
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-38.6	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.2	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	12.702	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	25.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.4	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-36.1	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.4	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-2.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	23.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.6	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.3	G	
			STR-I	POS.	1.000	N/A	102.6	30.0	21.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-32.9	D	A
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-2.1	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	21.7	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-I	POS.	1.000	N/A	102.6	30.0	18.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.8	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.9	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	1.0	G	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	15.633	BOT	STR-IV	POS.	1.000	N/A	102.6	30.0	1.2	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	1.0	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-23.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.5	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-1.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	15.4	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.8	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	1.0	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.8	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-16.8	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-1.0	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.9	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.1	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.6	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.7	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.6	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-9.4	D	
			STR-IA	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-II	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-III	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
			STR-IV	POS.	1.000	1.000	67.5	-30.0	-0.6	D	
			STR-V	POS.	1.000	1.000	67.5	-30.0	-0.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	6.2	G	
			STR-IA	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	102.6	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	102.6	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	102.6	30.0	0.3	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-7.2	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	18.515R	TOP	STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
			STR-V	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	4.9	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-7.0	D	
			STR-IA	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	89.1	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	89.1	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	130.0	30.0	4.8	G	
			STR-IA	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	130.0	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	130.0	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	130.0	30.0	0.2	G	

* Legend of General Notes:

- Rh = Hybrid factor
- Rb = Load shedding factor (only applies to compression flange)
- Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr
- F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3		Lr*	Cb*	Appendix A		Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		Cb*	Myc* (kip-ft)	
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.201	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.5	1.75	6.58	1.300	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.201	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.201	N/A	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 Lr*	8.2.3 Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.977	TOP	STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	8.4	1.70	6.38	1.300	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	10.748	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.7	1.68	6.32	1.300	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-II	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.7	1.000	1.000	7.3	1.77	6.64	1.300	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.201	N/A	N/A	N/A	N/A
			STR-IA	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	19.542	TOP	STR-II	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-III	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-IV	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A
			STR-V	P	0.6	1.000	1.000	8.8	1.67	6.29	1.300	N/A	N/A	N/A	N/A

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3													Appendix A		Factored Effects	Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Effects	Chk	
					Local	Governing	*	*	Local	Governing	*	*	Stress	Moment	***	
					Fr (ksi)	Mr(e) (kip-ft)	Fr (ksi)	*	Mr (kip-ft)	*	Mr (kip-ft)	*	F+** (ksi)	M+** (kip-ft)		
1	0.000	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	0.417L	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Effects		Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	Governing Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	Stress F+ (ksi)	Lateral Moment M+ (kip-ft)	
1	0.417R	TOP	STR-I	P	-10.8	C	24.	-10.8	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	0.977	TOP	STR-I	P	-10.8	C	24.	-10.8	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	1.000L	TOP	STR-I	P	-10.8	C	24.	-10.8	C	N/A	H	N/A	A
			STR-IA	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-II	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-III	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.6	C	26.	-11.6	C	N/A	H	-2.8	N/A
			STR-V	P	-11.6	C	26.	-11.6	C	N/A	H	-2.4	N/A
1	1.000R	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	1.954	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	2.931	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	-2.8	N/A
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A
1	3.908	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	-2.4	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	3.908	TOP	STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	4.885	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	5.863	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	6.840	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	7.817	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	8.794	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771L	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Governing Fr (ksi)	Local Mr (kip-ft)	* Governing Mr (kip-ft)	* H	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)			
1	9.771L	TOP	STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	9.771R	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	10.748	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	11.725	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	12.702	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	13.679	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	14.656	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***		
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H	Stress F+** (ksi)		+Lateral Moment M+** (kip-ft)	
1	14.656	TOP	STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	15.633	TOP	STR-I	P	-10.5	C		24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	16.610	TOP	STR-I	P	-10.5	C		24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	17.588	TOP	STR-I	P	-10.5	C		24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515L	TOP	STR-I	P	-10.5	C		24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C		25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
1	18.515R	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
1	18.542L	TOP	STR-I	P	-10.6	C		24.	-10.6	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.4	C		26.	-11.4	C	N/A	H	N/A	H	-2.4	N/A	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects	Code	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk		
					Local Fr (ksi)	* Governing Mr(e)** (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	* Local Fr (ksi)	* Governing Mr (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	18.542R	TOP	STR-I	P	-11.7	C	26.	-11.7	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	18.565	TOP	STR-I	P	-11.7	C	26.	-11.7	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-2.4	N/A	
1	19.542	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-40.7	N/A	A
			STR-IA	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-II	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-III	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	
			STR-IV	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.8	N/A	
			STR-V	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-2.4	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of Code Check:

- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Resistance Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.0	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.0	C	
1	0.417L	TOP	SERV-II	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIA	POS.	1.000	64.0	-24.0	-0.1	C	
			SERV-IIB	POS.	1.000	64.0	-24.0	-0.1	C	
		BOT	SERV-II	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIA	POS.	1.000	68.8	24.0	0.1	C	
			SERV-IIB	POS.	1.000	68.8	24.0	0.1	C	
1	0.417R	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.1	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.1	C	
1	0.977	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	TOP	SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000L	TOP	SERV-II	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.4	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.4	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIA	POS.	1.000	73.5	24.0	0.3	C	
			SERV-IIB	POS.	1.000	73.5	24.0	0.3	C	
1	1.000R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	
1	4.885	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	5.863	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	6.840	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	7.817	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	8.794	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	9.771R	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	BOT	SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	10.748	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.9	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.9	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	11.725	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.8	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.8	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.2	C	
1	12.702	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.1	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.1	C	
1	13.679	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.6	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.6	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIA	POS.	1.000	82.1	24.0	1.0	C	
			SERV-IIB	POS.	1.000	82.1	24.0	1.0	C	
1	14.656	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.9	C	
1	15.633	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.2	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.2	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.8	C	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-II	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.4	C	
1	18.515L	TOP	SERV-II	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	54.0	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	54.0	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.1	24.0	0.2	C	
1	18.515R	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542L	TOP	SERV-II	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	71.3	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	71.3	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	104.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	104.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	18.565	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Dc* (in)	Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fcrw* (ksi)	Factored Flexural Stress fc* (ksi)	Code Check**
1	0.000	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	0.0	
1	0.417L	TOP	SERV-II	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIA	POS.	7.15	1.000	79.9	-30.0	-0.1	
		TOP	SERV-IIB	POS.	7.15	1.000	79.9	-30.0	-0.1	
1	0.417R	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.2	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.2	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.417R	TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.2	
1	0.977	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000L	TOP	SERV-II	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIA	POS.	8.00	1.000	10.2	-4.5	-0.4	
		TOP	SERV-IIB	POS.	8.00	1.000	10.2	-4.5	-0.4	
1	1.000R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	1.954	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	2.931	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	3.908	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	4.885	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	5.863	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	6.840	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	7.817	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	8.794	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	9.771R	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	10.748	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.9	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.9	
1	11.725	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.8	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.8	
1	12.702	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.7	
1	13.679	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.6	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.6	
1	14.656	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.4	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.4	
1	15.633	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.2	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.2	
1	16.610	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-1.0	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-1.0	
1	17.588	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.7	
		TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.7	
1	18.515L	TOP	SERV-II	POS.	8.81	1.000	67.5	-30.0	-0.4	
		TOP	SERV-IIA	POS.	8.81	1.000	67.5	-30.0	-0.4	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.515L	TOP	SERV-IIB	POS.	8.81	1.000	67.5	-30.0	-0.4	
1	18.515R	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542L	TOP	SERV-II	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	8.67	1.000	89.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	8.67	1.000	89.1	-30.0	-0.3	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
 flexure in which the web satisfies the requirement of LRFD
 Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	50.08	U	A
		STR-IA	37.40	1.09	U	
		STR-II	37.40	1.09	U	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-III	37.40	1.09	U	
		STR-IV	37.40	1.31	U	
		STR-V	37.40	1.09	U	
1	0.417L	STR-I	37.40	48.70	U	A
		STR-IA	37.40	1.05	U	
		STR-II	37.40	1.05	U	
		STR-III	37.40	1.05	U	
		STR-IV	37.40	1.26	U	
		STR-V	37.40	1.05	U	
1	0.417R	STR-I	0.41	48.70	U	A, B
		STR-IA	0.41	1.05	U	A, B
		STR-II	0.41	1.05	U	A, B
		STR-III	0.41	1.05	U	A, B
		STR-IV	0.41	1.26	U	A, B
		STR-V	0.41	1.05	U	A, B
1	0.977	STR-I	0.41	46.84	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000L	STR-I	0.41	46.77	U	A, B
		STR-IA	0.41	0.98	U	A, B
		STR-II	0.41	0.98	U	A, B
		STR-III	0.41	0.98	U	A, B
		STR-IV	0.41	1.18	U	A, B
		STR-V	0.41	0.98	U	A, B
1	1.000R	STR-I	98.14	46.77	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	43.61	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	40.38	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	37.14	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	33.91	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	30.87	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	
		STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	28.21	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	25.56	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	8.794	STR-I	98.14	22.90	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	20.25	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	20.25	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-22.90	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	
1	11.725	STR-I	98.14	-25.56	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-28.21	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-30.87	U	
		STR-IA	98.14	-0.44	U	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-33.91	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-37.14	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-40.38	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-43.61	U	
		STR-IA	98.14	-0.87	U	
		STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.515L	STR-I	98.14	-46.68	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.515R	STR-I	98.14	-46.68	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/Unstiffened	Code Check*
1	18.515R	STR-IV	98.14	-1.17	U	
		STR-V	98.14	-0.98	U	
1	18.542L	STR-I	98.14	-46.77	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.542R	STR-I	98.14	-46.77	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-46.84	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-50.08	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.211	9.3	1	0.000	STR-I
	Shear		-0.013	0.0	1	0.417R	STR-I
	Controlling		-0.013	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.4	-2.4	-38.3	0.237*	D
1	0.417R	TOP	STR-I	POS.	-10.8	-2.4	-38.3	0.219*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.8	10.713	A
1	0.977	TOP	STR-I	POS.	-10.8	-2.4	-38.3	0.219*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.3	4.717	A
1	1.000L	TOP	STR-I	POS.	-10.8	-2.4	-38.3	0.219*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.4	4.615	A
1	1.000R	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	0.3	5.8	5.160	B
1	1.954	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	0.6	10.5	2.804	B
1	2.931	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	0.8	14.6	2.001	B
1	3.908	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	1.0	17.9	1.618	B
1	4.885	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	1.2	20.5	1.407	B
1	5.863	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	1.3	22.4	1.279	B
1	6.840	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D
		BOT	STR-I	POS.	30.0	1.4	24.0	1.192	B
1	7.817	TOP	STR-I	POS.	-10.5	-2.4	-38.3	0.211*	B,D

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	24.9	1.145	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.5	-38.3 25.2	0.211* 1.129	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.6	-38.3 24.9	0.211* 1.144	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.6	-38.3 24.9	0.211* 1.144	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.5	-38.3 25.2	0.211* 1.129	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.5	-38.3 24.9	0.211* 1.145	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.4	-38.3 24.0	0.211* 1.192	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.3	-38.3 22.4	0.211* 1.279	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.2	-38.3 20.5	0.211* 1.407	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 1.0	-38.3 17.9	0.211* 1.618	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 0.8	-38.3 14.6	0.211* 2.001	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 0.6	-38.3 10.5	0.211* 2.804	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 0.3	-38.3 5.9	0.211* 5.032	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.2	-38.3 4.7	0.214* 6.391	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.6 30.0	-2.4 0.2	-38.3 4.5	0.214* 6.552	B,D B

 Madawaska Critical Stringer MainedOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.7	-2.4	-38.3	0.243*	D
1	18.565	TOP	STR-I	POS.	-11.7	-2.4	-38.3	0.243*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	48.98	0.741	C
1	0.417L	STR-I	POS.	37.40	1.05	47.65	0.763	C
1	0.417R	STR-I	POS.	0.41	1.05	47.65	-0.013	A,C
1	0.977	STR-I	POS.	0.41	0.98	45.86	-0.012	A,C
1	1.000L	STR-I	POS.	0.41	0.98	45.79	-0.012	A,C
1	1.000R	STR-I	POS.	98.14	0.98	45.79	2.122	
1	1.954	STR-I	POS.	98.14	0.87	42.73	2.276	
1	2.931	STR-I	POS.	98.14	0.77	39.61	2.458	
1	3.908	STR-I	POS.	98.14	0.66	36.49	2.672	
1	4.885	STR-I	POS.	98.14	0.55	33.36	2.925	
1	5.863	STR-I	POS.	98.14	0.44	30.43	3.211	
1	6.840	STR-I	POS.	98.14	0.33	27.88	3.508	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	25.34	3.865	
1	8.794	STR-I	POS.	98.14	0.11	22.79	4.301	
1	9.771L	STR-I	POS.	98.14	0.00	20.25	4.847	
1	9.771R	STR-I	POS.	98.14	0.00	20.25	4.847	
1	10.748	STR-I	NEG.	98.14	-0.11	-22.79	4.301	
1	11.725	STR-I	NEG.	98.14	-0.22	-25.34	3.865	
1	12.702	STR-I	NEG.	98.14	-0.33	-27.88	3.508	
1	13.679	STR-I	NEG.	98.14	-0.44	-30.43	3.211	
1	14.656	STR-I	NEG.	98.14	-0.55	-33.36	2.925	
1	15.633	STR-I	NEG.	98.14	-0.66	-36.49	2.672	
1	16.610	STR-I	NEG.	98.14	-0.77	-39.61	2.458	
1	17.588	STR-I	NEG.	98.14	-0.87	-42.73	2.276	
1	18.515L	STR-I	NEG.	98.14	-0.98	-45.70	2.126	
1	18.515R	STR-I	NEG.	98.14	-0.98	-45.70	2.126	
1	18.542L	STR-I	NEG.	98.14	-0.98	-45.79	2.122	
1	18.542R	STR-I	NEG.	98.14	-0.98	-45.79	2.122	
1	18.565	STR-I	NEG.	98.14	-0.98	-45.86	2.118	
1	19.542	STR-I	NEG.	98.14	-1.09	-48.98	1.981	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.4	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.2	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.4	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.9	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.8	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.1	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-22.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.1	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-28.4	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.6	0.0
1	6.840	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-30.4	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-32.8	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.6	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-34.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.5	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-34.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.8	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-34.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.8	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-34.2	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	22.5	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-32.8	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	21.6	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-30.4	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-28.4	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.6	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-26.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.1	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-22.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	12.1	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.8	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:
 TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
 input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	61.78	N/A*	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	11.0	59.86	N/A*	-4.12	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	11.0	59.86	3.59	-4.84	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.7	57.28	8.05	-10.88	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.2	57.17	8.23	-11.11	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.2	57.17	7.37	-11.21	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.5	52.78	13.31	-20.25	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.0	48.55	18.40	-28.00	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	77.5	44.74	22.66	-34.47	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	88.8	40.93	25.97	-39.50	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	97.0	37.12	28.34	-43.11	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	104.0	33.31	30.41	-46.26	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	29.49	32.76	-49.84	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	116.9	25.68	34.18	-51.99	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	118.5	21.87	34.65	-52.70	0.00	N/A**	N/A**	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
						(ksi)	(ksi)	(ksi)			
1	9.771R	STR-I	POS.	118.5	21.87	34.65	-52.70	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	116.9	-25.68	34.18	-51.99	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-29.49	32.76	-49.84	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	104.0	-33.31	30.41	-46.26	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	97.0	-37.12	28.34	-43.11	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	88.8	-40.93	25.97	-39.50	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	77.5	-44.74	22.66	-34.47	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.0	-48.55	18.40	-28.00	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.5	-52.78	13.31	-20.25	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	25.8	-57.05	7.55	-11.49	0.00	N/A**	N/A**	
1	18.515R	STR-I	POS.	25.8	-57.05	5.96	-8.70	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	25.2	-57.17	5.81	-8.49	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	25.2	-57.17	N/A*	-5.12	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.7	-57.28	N/A*	-5.01	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-61.78	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Critical Stringer MainedOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	11.0	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-I	POS.	171.5	25.2	D	
1	18.565	STR-I	POS.	171.5	24.7	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh* Rb*	Flexural Resistance Mr(e)* (kip-ft)	Factored Flexural +Lateral Stress Fr F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.417R	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0 -4.8	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0 3.6	G	
1	0.977	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0 -10.9	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0 8.1	G	
1	1.000L	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0 -11.1	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0 8.2	G	
1	1.000R	TOP	STR-I	POS.	1.000 1.000	67.5	-30.0 -11.2	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000R	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	7.4	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.3	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.4	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.7	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.0	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-43.1	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	28.3	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-46.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	30.4	G	A
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-49.8	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	32.8	G	A
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.0	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.2	G	A
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.6	G	A
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.6	G	A
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-52.0	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	34.2	G	A
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-49.8	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	32.8	G	A
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-46.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	30.4	G	A
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-43.1	D	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	13.679	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	28.3	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-39.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.0	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.7	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.4	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-20.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	13.3	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-11.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	7.6	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-8.7	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	6.0	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-8.5	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.8	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.301	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.301	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.301	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.301	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)															
Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.301	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.301	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.301	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.301	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.301	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)						
1	0.000	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	0.417L	TOP	STR-I	P	-12.4	C	28.	-12.4	C	N/A	H	N/A	H	-52.7	N/A	A
1	0.417R	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-52.7	N/A	A
1	0.977	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-52.7	N/A	A
1	1.000L	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-52.7	N/A	A
1	1.000R	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	1.954	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	2.931	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	3.908	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	4.885	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	5.863	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	6.840	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	7.817	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	8.794	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	9.771L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	9.771R	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	10.748	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	11.725	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	12.702	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	13.679	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	14.656	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	15.633	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	16.610	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	17.588	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	18.515L	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A
1	18.515R	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-52.7	N/A	A
1	18.542L	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-52.7	N/A	A
1	18.542R	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-52.7	N/A	A
1	18.565	TOP	STR-I	P	-12.6	C	28.	-12.6	C	N/A	H	N/A	H	-52.7	N/A	A
1	19.542	TOP	STR-I	P	-11.3	C	25.	-11.3	C	N/A	H	N/A	H	-52.7	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. F_r calculated using AASHTO Equation 6.10.8.2.3-1

B. F_r calculated using AASHTO Equation 6.10.8.2.3-2

C. F_r calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. M_r calculated using AASHTO Equation A6.3.3-1

E. M_r calculated using AASHTO Equation A6.3.3-2

F. M_r calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

$M_r(e)$ = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, F_r

$F+$ = $f_{bu} + (1/3)*f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If $F+$ prints as N/A, Appendix A calculations govern the LTB capacity

$M+$ = $M_u + (1/3)*f_l*S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If $M+$ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for $F+$ or $M+$ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress ($F+$) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress ($F+$) to the flexural resistance (F_r) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY			
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	37.40	61.78	U	A
1	0.417L	STR-I	37.40	59.86	U	A
1	0.417R	STR-I	0.41	59.86	U	A, B
1	0.977	STR-I	0.41	57.28	U	A, B
1	1.000L	STR-I	0.41	57.17	U	A, B
1	1.000R	STR-I	98.14	57.17	U	
1	1.954	STR-I	98.14	52.78	U	
1	2.931	STR-I	98.14	48.55	U	
1	3.908	STR-I	98.14	44.74	U	
1	4.885	STR-I	98.14	40.93	U	
1	5.863	STR-I	98.14	37.12	U	
1	6.840	STR-I	98.14	33.31	U	
1	7.817	STR-I	98.14	29.49	U	
1	8.794	STR-I	98.14	25.68	U	
1	9.771L	STR-I	98.14	21.87	U	
1	9.771R	STR-I	98.14	21.87	U	
1	10.748	STR-I	98.14	-25.68	U	
1	11.725	STR-I	98.14	-29.49	U	
1	12.702	STR-I	98.14	-33.31	U	
1	13.679	STR-I	98.14	-37.12	U	
1	14.656	STR-I	98.14	-40.93	U	
1	15.633	STR-I	98.14	-44.74	U	

 Madawaska Critical Stringer MainedOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	98.14	-48.55	U	
1	17.588	STR-I	98.14	-52.78	U	
1	18.515L	STR-I	98.14	-57.05	U	
1	18.515R	STR-I	98.14	-57.05	U	
1	18.542L	STR-I	98.14	-57.17	U	
1	18.542R	STR-I	98.14	-57.17	U	
1	18.565	STR-I	98.14	-57.28	U	
1	19.542	STR-I	98.14	-61.78	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.178	6.7	1	0.000	STR-I
	Shear		-0.011	0.0	1	0.417R	STR-I
	Controlling		-0.011	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-12.4	-2.4	-50.3	0.199*	D
1	0.417R	TOP	STR-I	POS.	-11.6	-2.4	-50.3	0.184*	A,D
		BOT	STR-I	POS.	30.0	0.1	3.4	8.679	A
1	0.977	TOP	STR-I	POS.	-11.6	-2.4	-50.3	0.184*	A,D
		BOT	STR-I	POS.	30.0	0.3	7.7	3.843	A
1	1.000L	TOP	STR-I	POS.	-11.6	-2.4	-50.3	0.184*	A,D
		BOT	STR-I	POS.	30.0	0.3	7.9	3.760	A
1	1.000R	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	0.3	7.1	4.204	B
1	1.954	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	0.6	12.8	2.309	B
1	2.931	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	0.8	17.6	1.659	B
1	3.908	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	1.0	21.7	1.339	B
1	4.885	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	1.2	24.8	1.162	B
1	5.863	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	1.3	27.0	1.061	B
1	6.840	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D
		BOT	STR-I	POS.	30.0	1.4	29.0	0.986	B,D
1	7.817	TOP	STR-I	POS.	-11.3	-2.4	-50.3	0.178*	B,D

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	31.3	0.912	B, D
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-50.3 32.6	0.178* 0.872	B, D B, D
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-50.3 33.1	0.178* 0.860	B, D B, D
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.6	-50.3 33.1	0.178* 0.860	B, D B, D
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-50.3 32.6	0.178* 0.872	B, D B, D
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.5	-50.3 31.3	0.178* 0.912	B, D B, D
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.4	-50.3 29.0	0.178* 0.986	B, D B, D
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.3	-50.3 27.0	0.178* 1.061	B, D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.2	-50.3 24.8	0.178* 1.162	B, D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 1.0	-50.3 21.7	0.178* 1.339	B, D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.8	-50.3 17.6	0.178* 1.659	B, D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.6	-50.3 12.8	0.178* 2.309	B, D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-11.3 30.0	-2.4 0.3	-50.3 7.2	0.178* 4.101	B, D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-50.3 5.7	0.180* 5.209	B, D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-11.4 30.0	-2.4 0.2	-50.3 5.6	0.180* 5.339	B, D B

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-12.6	-2.4	-50.3	0.204*	D
1	18.565	TOP	STR-I	POS.	-12.6	-2.4	-50.3	0.204*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	60.69	0.598	C
1	0.417L	STR-I	POS.	37.40	1.05	58.81	0.618	C
1	0.417R	STR-I	POS.	0.41	1.05	58.81	-0.011	A,C
1	0.977	STR-I	POS.	0.41	0.98	56.30	-0.010	A,C
1	1.000L	STR-I	POS.	0.41	0.98	56.19	-0.010	A,C
1	1.000R	STR-I	POS.	98.14	0.98	56.19	1.729	
1	1.954	STR-I	POS.	98.14	0.87	51.90	1.874	
1	2.931	STR-I	POS.	98.14	0.77	47.79	2.038	
1	3.908	STR-I	POS.	98.14	0.66	44.09	2.211	
1	4.885	STR-I	POS.	98.14	0.55	40.38	2.417	
1	5.863	STR-I	POS.	98.14	0.44	36.68	2.664	
1	6.840	STR-I	POS.	98.14	0.33	32.98	2.966	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear POS.	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	29.27	3.345	
1	8.794	STR-I	POS.	98.14	0.11	25.57	3.833	
1	9.771L	STR-I	POS.	98.14	0.00	21.87	4.487	
1	9.771R	STR-I	POS.	98.14	0.00	21.87	4.487	
1	10.748	STR-I	NEG.	98.14	-0.11	-25.57	3.833	
1	11.725	STR-I	NEG.	98.14	-0.22	-29.27	3.345	
1	12.702	STR-I	NEG.	98.14	-0.33	-32.98	2.966	
1	13.679	STR-I	NEG.	98.14	-0.44	-36.68	2.664	
1	14.656	STR-I	NEG.	98.14	-0.55	-40.38	2.417	
1	15.633	STR-I	NEG.	98.14	-0.66	-44.09	2.211	
1	16.610	STR-I	NEG.	98.14	-0.77	-47.79	2.038	
1	17.588	STR-I	NEG.	98.14	-0.87	-51.90	1.874	
1	18.515L	STR-I	NEG.	98.14	-0.98	-56.07	1.733	
1	18.515R	STR-I	NEG.	98.14	-0.98	-56.07	1.733	
1	18.542L	STR-I	NEG.	98.14	-0.98	-56.19	1.729	
1	18.542R	STR-I	NEG.	98.14	-0.98	-56.19	1.729	
1	18.565	STR-I	NEG.	98.14	-0.98	-56.30	1.726	
1	19.542	STR-I	NEG.	98.14	-1.09	-60.69	1.599	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.2	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.6	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.7	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-16.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.6	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-19.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	13.0	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-22.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-24.6	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	16.2	0.0
1	6.840	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-26.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	17.3	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-27.3	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.9	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	18.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.3	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.9	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.3	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.9	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-27.6	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	18.2	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-27.3	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	17.9	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-26.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	17.3	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-24.6	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	16.2	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-22.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-19.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	13.0	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-16.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.6	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.7	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.3	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:
 TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
 input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	53.27	N/A*	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	9.5	51.76	N/A*	-3.58	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	9.5	51.76	3.11	-4.20	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.72	7.02	-9.48	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	22.0	49.64	7.17	-9.69	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	22.0	49.64	6.42	-9.77	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.0	46.18	11.69	-17.78	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	55.5	42.63	16.22	-24.68	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	68.0	39.09	19.88	-30.24	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	77.5	35.54	22.66	-34.47	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	84.7	32.25	24.75	-37.65	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	90.6	29.48	26.48	-40.28	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	94.2	26.71	27.53	-41.87	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	95.4	23.94	27.88	-42.42	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	94.3	21.17	27.56	-41.92	0.00	N/A**	N/A**	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	9.771R	STR-I	POS.	94.3	21.17	27.56	-41.92	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	95.4	-23.94	27.88	-42.42	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	94.2	-26.71	27.53	-41.87	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	90.6	-29.48	26.48	-40.28	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	84.7	-32.25	24.75	-37.65	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	77.5	-35.54	22.66	-34.47	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	68.0	-39.09	19.88	-30.24	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	55.5	-42.63	16.22	-24.68	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.0	-46.18	11.69	-17.78	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	22.5	-49.54	6.58	-10.01	0.00	N/A**	N/A**	
1	18.515R	STR-I	POS.	22.5	-49.54	5.19	-7.58	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	22.0	-49.64	5.07	-7.40	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	22.0	-49.64	N/A*	-4.46	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.72	N/A*	-4.37	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-53.27	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Critical Stringer MainedOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	9.5	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-I	POS.	171.5	22.0	D	
1	18.565	STR-I	POS.	171.5	21.5	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh* Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.417R	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-4.2	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	3.1	G	
1	0.977	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-9.5	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	7.0	G	
1	1.000L	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-9.7	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	7.2	G	
1	1.000R	TOP	STR-I	POS.	1.000 1.000	67.5	-30.0	-9.8	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000R	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	6.4	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-17.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.7	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.7	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.2	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-30.2	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.9	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.7	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.7	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.8	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.5	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.9	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.5	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-42.4	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.9	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.9	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.6	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.9	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.6	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-42.4	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.9	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-41.9	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	27.5	G	
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-40.3	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	26.5	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-37.7	D	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	13.679	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	24.8	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-34.5	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	22.7	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-30.2	D	A
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.9	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.7	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.2	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-17.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.7	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-10.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	6.6	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-7.6	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.2	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-7.4	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	5.1	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Cb*	Appendix A		Rpc*
										Lr*	Cb*			Myc* (kip-ft)		
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.198	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.198	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.198	N/A	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.198	N/A	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.198	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.198	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.198	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.198	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.198	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (kip-ft)	** Fr (ksi)	* Fr (ksi)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)					
1	0.000	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	0.417L	TOP	STR-I	P	-11.4	C	26.	-11.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	0.417R	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-42.4	N/A	A
1	0.977	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-42.4	N/A	A
1	1.000L	TOP	STR-I	P	-10.7	C	24.	-10.7	C	N/A	H	N/A	H	-42.4	N/A	A
1	1.000R	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	1.954	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	2.931	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	3.908	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	4.885	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	5.863	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	6.840	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	7.817	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	8.794	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	9.771L	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	9.771R	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	10.748	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	11.725	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	12.702	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	13.679	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	14.656	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	15.633	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	16.610	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	17.588	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	18.515L	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A
1	18.515R	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-42.4	N/A	A
1	18.542L	TOP	STR-I	P	-10.5	C	24.	-10.5	C	N/A	H	N/A	H	-42.4	N/A	A
1	18.542R	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-42.4	N/A	A
1	18.565	TOP	STR-I	P	-11.6	C	26.	-11.6	C	N/A	H	N/A	H	-42.4	N/A	A
1	19.542	TOP	STR-I	P	-10.4	C	23.	-10.4	C	N/A	H	N/A	H	-42.4	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. F_r calculated using AASHTO Equation 6.10.8.2.3-1

B. F_r calculated using AASHTO Equation 6.10.8.2.3-2

C. F_r calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. M_r calculated using AASHTO Equation A6.3.3-1

E. M_r calculated using AASHTO Equation A6.3.3-2

F. M_r calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

$M_r(e)$ = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, F_r

$F+$ = $f_{bu} + (1/3)*f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If $F+$ prints as N/A, Appendix A calculations govern the LTB capacity

$M+$ = $M_u + (1/3)*f_l*S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If $M+$ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for $F+$ or $M+$ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress ($F+$) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress ($F+$) to the flexural resistance (F_r) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY			
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	37.40	53.27	U	A
1	0.417L	STR-I	37.40	51.76	U	A
1	0.417R	STR-I	0.41	51.76	U	A, B
1	0.977	STR-I	0.41	49.72	U	A, B
1	1.000L	STR-I	0.41	49.64	U	A, B
1	1.000R	STR-I	98.14	49.64	U	
1	1.954	STR-I	98.14	46.18	U	
1	2.931	STR-I	98.14	42.63	U	
1	3.908	STR-I	98.14	39.09	U	
1	4.885	STR-I	98.14	35.54	U	
1	5.863	STR-I	98.14	32.25	U	
1	6.840	STR-I	98.14	29.48	U	
1	7.817	STR-I	98.14	26.71	U	
1	8.794	STR-I	98.14	23.94	U	
1	9.771L	STR-I	98.14	21.17	U	
1	9.771R	STR-I	98.14	21.17	U	
1	10.748	STR-I	98.14	-23.94	U	
1	11.725	STR-I	98.14	-26.71	U	
1	12.702	STR-I	98.14	-29.48	U	
1	13.679	STR-I	98.14	-32.25	U	
1	14.656	STR-I	98.14	-35.54	U	
1	15.633	STR-I	98.14	-39.09	U	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	98.14	-42.63	U	
1	17.588	STR-I	98.14	-46.18	U	
1	18.515L	STR-I	98.14	-49.54	U	
1	18.515R	STR-I	98.14	-49.54	U	
1	18.542L	STR-I	98.14	-49.64	U	
1	18.542R	STR-I	98.14	-49.64	U	
1	18.565	STR-I	98.14	-49.72	U	
1	19.542	STR-I	98.14	-53.27	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.201	6.0	1	0.000	STR-I
	Shear		-0.013	0.0	1	0.417R	STR-I
	Controlling		-0.013	0.0	1	0.417R	STR-I
Operating	Not Applicable						

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-11.4	-2.4	-40.1	0.226*	D
1	0.417R	TOP	STR-I	POS.	-10.7	-2.4	-40.1	0.209*	A,D
		BOT	STR-I	POS.	30.0	0.1	3.0	10.066	A
1	0.977	TOP	STR-I	POS.	-10.7	-2.4	-40.1	0.209*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.7	4.438	A
1	1.000L	TOP	STR-I	POS.	-10.7	-2.4	-40.1	0.209*	A,D
		BOT	STR-I	POS.	30.0	0.3	6.8	4.343	A
1	1.000R	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	0.3	6.1	4.855	B
1	1.954	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	0.6	11.1	2.645	B
1	2.931	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	0.8	15.4	1.893	B
1	3.908	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	1.0	18.9	1.536	B
1	4.885	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	1.2	21.5	1.342	B
1	5.863	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	1.3	23.4	1.224	B
1	6.840	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D
		BOT	STR-I	POS.	30.0	1.4	25.1	1.140	B
1	7.817	TOP	STR-I	POS.	-10.4	-2.4	-40.1	0.201*	B,D

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	26.0	1.095	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.5	-40.1 26.3	0.201* 1.080	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.6	-40.1 26.0	0.201* 1.094	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.6	-40.1 26.0	0.201* 1.094	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.5	-40.1 26.3	0.201* 1.080	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.5	-40.1 26.0	0.201* 1.095	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.4	-40.1 25.1	0.201* 1.140	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.3	-40.1 23.4	0.201* 1.224	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.2	-40.1 21.5	0.201* 1.342	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 1.0	-40.1 18.9	0.201* 1.536	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 0.8	-40.1 15.4	0.201* 1.893	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 0.6	-40.1 11.1	0.201* 2.645	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-10.4 30.0	-2.4 0.3	-40.1 6.3	0.201* 4.735	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 0.2	-40.1 4.9	0.204* 6.014	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.5 30.0	-2.4 0.2	-40.1 4.8	0.204* 6.165	B,D B

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.6	-2.4	-40.1	0.232*	D
1	18.565	TOP	STR-I	POS.	-11.6	-2.4	-40.1	0.232*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	52.18	0.696	C
1	0.417L	STR-I	POS.	37.40	1.05	50.71	0.717	C
1	0.417R	STR-I	POS.	0.41	1.05	50.71	-0.013	A,C
1	0.977	STR-I	POS.	0.41	0.98	48.74	-0.012	A,C
1	1.000L	STR-I	POS.	0.41	0.98	48.66	-0.012	A,C
1	1.000R	STR-I	POS.	98.14	0.98	48.66	1.997	
1	1.954	STR-I	POS.	98.14	0.87	45.30	2.147	
1	2.931	STR-I	POS.	98.14	0.77	41.87	2.326	
1	3.908	STR-I	POS.	98.14	0.66	38.43	2.537	
1	4.885	STR-I	POS.	98.14	0.55	34.99	2.789	
1	5.863	STR-I	POS.	98.14	0.44	31.81	3.071	
1	6.840	STR-I	POS.	98.14	0.33	29.15	3.355	

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	26.49	3.697	
1	8.794	STR-I	POS.	98.14	0.11	23.83	4.114	
1	9.771L	STR-I	POS.	98.14	0.00	21.17	4.636	
1	9.771R	STR-I	POS.	98.14	0.00	21.17	4.636	
1	10.748	STR-I	NEG.	98.14	-0.11	-23.83	4.114	
1	11.725	STR-I	NEG.	98.14	-0.22	-26.49	3.697	
1	12.702	STR-I	NEG.	98.14	-0.33	-29.15	3.355	
1	13.679	STR-I	NEG.	98.14	-0.44	-31.81	3.071	
1	14.656	STR-I	NEG.	98.14	-0.55	-34.99	2.789	
1	15.633	STR-I	NEG.	98.14	-0.66	-38.43	2.537	
1	16.610	STR-I	NEG.	98.14	-0.77	-41.87	2.326	
1	17.588	STR-I	NEG.	98.14	-0.87	-45.30	2.147	
1	18.515L	STR-I	NEG.	98.14	-0.98	-48.56	2.001	
1	18.515R	STR-I	NEG.	98.14	-0.98	-48.56	2.001	
1	18.542L	STR-I	NEG.	98.14	-0.98	-48.66	1.997	
1	18.542R	STR-I	NEG.	98.14	-0.98	-48.66	1.997	
1	18.565	STR-I	NEG.	98.14	-0.98	-48.74	1.993	
1	19.542	STR-I	NEG.	98.14	-1.09	-52.18	1.860	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.417L	TOP	STR-I	POS.	-0.1	N/A	0.0	0.0	0.0	0.0	-1.6	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.5	0.0
1	0.417R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-1.9	0.0
		BOT	STR-I	POS.	0.1	N/A	0.0	0.0	0.0	0.0	1.4	0.0
1	0.977	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	3.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	1.954	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	2.931	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	7.4	0.0
1	3.908	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	4.885	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	5.863	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-17.4	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	6.840	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	7.817	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	8.794	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	11.9	0.0

Madawaska Critical Stringer MaineDOT Trucks 5-8

SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-18.0	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	10.748	TOP	STR-I	POS.	-1.9	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	11.725	TOP	STR-I	POS.	-1.8	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
		BOT	STR-I	POS.	1.2	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	12.702	TOP	STR-I	POS.	-1.7	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	13.679	TOP	STR-I	POS.	-1.6	N/A	0.0	0.0	0.0	0.0	-17.4	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	14.656	TOP	STR-I	POS.	-1.4	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	15.633	TOP	STR-I	POS.	-1.2	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	16.610	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	7.4	0.0
1	17.588	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	18.515L	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-4.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	18.515R	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.3	0.0
1	18.542L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.3	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:
 TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
 input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	36.55	N/A*	0.00	0.00	N/A**	N/A**	
1	0.417L	STR-I	POS.	6.6	35.58	N/A*	-2.49	0.00	N/A**	N/A**	
1	0.417R	STR-I	POS.	6.6	35.58	2.17	-2.93	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	15.0	34.28	4.90	-6.62	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	15.3	34.23	5.01	-6.76	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	15.3	34.23	4.48	-6.82	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	28.1	32.01	8.21	-12.49	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	39.2	29.73	11.47	-17.45	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	48.5	27.46	14.17	-21.55	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	55.8	25.19	16.30	-24.80	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	61.1	22.91	17.88	-27.19	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	64.6	20.64	18.88	-28.73	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	66.1	18.37	19.33	-29.41	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	65.7	16.09	19.22	-29.23	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	64.2	14.00	18.76	-28.53	0.00	N/A**	N/A**	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	9.771R	STR-I	POS.	64.2	14.00	18.76	-28.53	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	65.7	-16.09	19.22	-29.23	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	66.1	-18.37	19.33	-29.41	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	64.6	-20.64	18.88	-28.73	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	61.1	-22.91	17.88	-27.19	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	55.8	-25.19	16.30	-24.80	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	48.5	-27.46	14.17	-21.55	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	39.2	-29.73	11.47	-17.45	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	28.1	-32.01	8.21	-12.49	0.00	N/A**	N/A**	
1	18.515L	STR-I	POS.	15.7	-34.16	4.60	-6.99	0.00	N/A**	N/A**	
1	18.515R	STR-I	POS.	15.7	-34.16	3.63	-5.29	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	15.3	-34.23	3.54	-5.16	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	15.3	-34.23	N/A*	-3.12	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	15.0	-34.28	N/A*	-3.05	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-36.55	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	0.417L	STR-I	POS.	N/A	N/A	1.000	1.508	1.402	7.2	79.9	86.0	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	120.6	0.0	D	
1	0.417L	STR-I	POS.	120.6	6.6	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	18.542R	STR-I	POS.	171.5	15.3	D	
1	18.565	STR-I	POS.	171.5	15.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh* Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.417R	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-2.9	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	2.2	G	
1	0.977	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-6.6	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	4.9	G	
1	1.000L	TOP	STR-I	POS.	1.000 0.935	63.6	-28.0	-6.8	D	
		BOT	STR-I	POS.	1.000 N/A	91.9	30.0	5.0	G	
1	1.000R	TOP	STR-I	POS.	1.000 1.000	67.5	-30.0	-6.8	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	1.000R	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	4.5	G	
1	1.954	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-12.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	8.2	G	
1	2.931	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-17.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.5	G	
1	3.908	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-21.6	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.2	G	
1	4.885	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.3	G	
1	5.863	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
1	6.840	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.7	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.9	G	
1	7.817	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.3	G	
1	8.794	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.2	G	
1	9.771L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.8	G	
1	9.771R	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.8	G	
1	10.748	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.2	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.2	G	
1	11.725	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-29.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	19.3	G	
1	12.702	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-28.7	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	18.9	G	
1	13.679	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-27.2	D	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	13.679	BOT	STR-I	POS.	1.000	N/A	102.6	30.0	17.9	G	
1	14.656	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-24.8	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	16.3	G	
1	15.633	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-21.6	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	14.2	G	
1	16.610	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-17.4	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	11.5	G	
1	17.588	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-12.5	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	8.2	G	
1	18.515L	TOP	STR-I	POS.	1.000	1.000	67.5	-30.0	-7.0	D	
		BOT	STR-I	POS.	1.000	N/A	102.6	30.0	4.6	G	
1	18.515R	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-5.3	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	3.6	G	
1	18.542L	TOP	STR-I	POS.	1.000	1.000	89.1	-30.0	-5.2	D	
		BOT	STR-I	POS.	1.000	N/A	130.0	30.0	3.5	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Cb*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	0.417L	TOP	STR-I	P	0.7	1.000	1.000	7.5	1.75	6.58	1.138	N/A	N/A	N/A	N/A	N/A
1	0.417R	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.138	N/A	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.138	N/A	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.7	1.000	1.000	8.4	1.70	6.38	1.138	N/A	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A	N/A

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	10.748	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	11.725	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	12.702	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	13.679	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	14.656	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	15.633	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	16.610	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	17.588	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	18.515L	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A
1	18.515R	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.138	N/A	N/A	N/A	N/A
1	18.542L	TOP	STR-I	P	0.6	1.000	1.000	8.7	1.68	6.32	1.138	N/A	N/A	N/A	N/A
1	18.542R	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.138	N/A	N/A	N/A	N/A
1	18.565	TOP	STR-I	P	0.7	1.000	1.000	7.3	1.77	6.64	1.138	N/A	N/A	N/A	N/A
1	19.542	TOP	STR-I	P	0.6	1.000	1.000	8.8	1.67	6.29	1.138	N/A	N/A	N/A	N/A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A
1	0.417L	TOP	STR-I	P	-10.8 C	24.	-10.8 C	N/A	H	N/A	H	-29.4	N/A	A
1	0.417R	TOP	STR-I	P	-10.2 C	23.	-10.2 C	N/A	H	N/A	H	-29.4	N/A	A
1	0.977	TOP	STR-I	P	-10.2 C	23.	-10.2 C	N/A	H	N/A	H	-29.4	N/A	A
1	1.000L	TOP	STR-I	P	-10.2 C	23.	-10.2 C	N/A	H	N/A	H	-29.4	N/A	A
1	1.000R	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A
1	1.954	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A
1	2.931	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A
1	3.908	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A
1	4.885	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A
1	5.863	TOP	STR-I	P	-9.9 C	22.	-9.9 C	N/A	H	N/A	H	-29.4	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Governing Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	6.840	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	7.817	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	8.794	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	9.771L	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	9.771R	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	10.748	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	11.725	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	12.702	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	13.679	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	14.656	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	15.633	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	16.610	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	17.588	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	18.515L	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A
1	18.515R	TOP	STR-I	P	-10.0	C	22.	-10.0	C	N/A	H	N/A	H	-29.4	N/A	A
1	18.542L	TOP	STR-I	P	-10.0	C	22.	-10.0	C	N/A	H	N/A	H	-29.4	N/A	A
1	18.542R	TOP	STR-I	P	-11.1	C	25.	-11.1	C	N/A	H	N/A	H	-29.4	N/A	A
1	18.565	TOP	STR-I	P	-11.1	C	25.	-11.1	C	N/A	H	N/A	H	-29.4	N/A	A
1	19.542	TOP	STR-I	P	-9.9	C	22.	-9.9	C	N/A	H	N/A	H	-29.4	N/A	A

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. F_r calculated using AASHTO Equation 6.10.8.2.3-1

B. F_r calculated using AASHTO Equation 6.10.8.2.3-2

C. F_r calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. M_r calculated using AASHTO Equation A6.3.3-1

E. M_r calculated using AASHTO Equation A6.3.3-2

F. M_r calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

$M_r(e)$ = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, F_r

$F+$ = $f_{bu} + (1/3)*f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If $F+$ prints as N/A, Appendix A calculations govern the LTB capacity

$M+$ = $M_u + (1/3)*f_l*S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If $M+$ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for $F+$ or $M+$ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress ($F+$) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress ($F+$) to the flexural resistance (F_r) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	37.40	36.55	U	
1	0.417L	STR-I	37.40	35.58	U	
1	0.417R	STR-I	0.41	35.58	U	A, B
1	0.977	STR-I	0.41	34.28	U	A, B
1	1.000L	STR-I	0.41	34.23	U	A, B
1	1.000R	STR-I	98.14	34.23	U	
1	1.954	STR-I	98.14	32.01	U	
1	2.931	STR-I	98.14	29.73	U	
1	3.908	STR-I	98.14	27.46	U	
1	4.885	STR-I	98.14	25.19	U	
1	5.863	STR-I	98.14	22.91	U	
1	6.840	STR-I	98.14	20.64	U	
1	7.817	STR-I	98.14	18.37	U	
1	8.794	STR-I	98.14	16.09	U	
1	9.771L	STR-I	98.14	14.00	U	
1	9.771R	STR-I	98.14	14.00	U	
1	10.748	STR-I	98.14	-16.09	U	
1	11.725	STR-I	98.14	-18.37	U	
1	12.702	STR-I	98.14	-20.64	U	
1	13.679	STR-I	98.14	-22.91	U	
1	14.656	STR-I	98.14	-25.19	U	
1	15.633	STR-I	98.14	-27.46	U	

 Madawaska Critical Stringer MainedOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	98.14	-29.73	U	
1	17.588	STR-I	98.14	-32.01	U	
1	18.515L	STR-I	98.14	-34.16	U	
1	18.515R	STR-I	98.14	-34.16	U	
1	18.542L	STR-I	98.14	-34.23	U	
1	18.542R	STR-I	98.14	-34.23	U	
1	18.565	STR-I	98.14	-34.28	U	
1	19.542	STR-I	98.14	-36.55	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.281	5.3	1	0.000	STR-I
	Shear		-0.018	0.0	1	0.417R	STR-I
	Controlling		-0.018	0.0	1	0.417R	STR-I

Operating Not Applicable

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.417L	TOP	STR-I	POS.	-10.8	-2.3	-27.1	0.315*	D
1	0.417R	TOP	STR-I	POS.	-10.2	-2.3	-27.1	0.292*	A,D
		BOT	STR-I	POS.	30.0	0.1	2.0	14.780	A
1	0.977	TOP	STR-I	POS.	-10.2	-2.3	-27.1	0.292*	A,D
		BOT	STR-I	POS.	30.0	0.3	4.6	6.497	A
1	1.000L	TOP	STR-I	POS.	-10.2	-2.3	-27.1	0.292*	A,D
		BOT	STR-I	POS.	30.0	0.3	4.7	6.356	A
1	1.000R	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	0.3	4.2	7.106	B
1	1.954	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	0.6	7.6	3.849	B
1	2.931	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	0.8	10.7	2.736	B
1	3.908	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	1.0	13.2	2.202	B
1	4.885	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	1.2	15.1	1.905	B
1	5.863	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	1.3	16.6	1.732	B
1	6.840	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D
		BOT	STR-I	POS.	30.0	1.4	17.5	1.636	B
1	7.817	TOP	STR-I	POS.	-9.9	-2.3	-27.1	0.281*	B,D

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	7.817	BOT	STR-I	POS.	30.0	1.5	17.8	1.598	B
1	8.794	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.5	-27.1 17.7	0.281* 1.610	B,D B
1	9.771L	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.6	-27.1 17.2	0.281* 1.654	B,D B
1	9.771R	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.6	-27.1 17.2	0.281* 1.654	B,D B
1	10.748	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.5	-27.1 17.7	0.281* 1.610	B,D B
1	11.725	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.5	-27.1 17.8	0.281* 1.598	B,D B
1	12.702	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.4	-27.1 17.5	0.281* 1.636	B,D B
1	13.679	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.3	-27.1 16.6	0.281* 1.732	B,D B
1	14.656	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.2	-27.1 15.1	0.281* 1.905	B,D B
1	15.633	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 1.0	-27.1 13.2	0.281* 2.202	B,D B
1	16.610	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 0.8	-27.1 10.7	0.281* 2.736	B,D B
1	17.588	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 0.6	-27.1 7.6	0.281* 3.849	B,D B
1	18.515L	TOP BOT	STR-I STR-I	POS. POS.	-9.9 30.0	-2.3 0.3	-27.1 4.3	0.281* 6.929	B,D B
1	18.515R	TOP BOT	STR-I STR-I	POS. POS.	-10.0 30.0	-2.3 0.2	-27.1 3.4	0.285* 8.801	B,D B
1	18.542L	TOP BOT	STR-I STR-I	POS. POS.	-10.0 30.0	-2.3 0.2	-27.1 3.3	0.285* 9.024	B,D B

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	18.542R	TOP	STR-I	POS.	-11.1	-2.3	-27.1	0.323*	D
1	18.565	TOP	STR-I	POS.	-11.1	-2.3	-27.1	0.323*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	37.40	1.09	35.46	1.024	
1	0.417L	STR-I	POS.	37.40	1.05	34.54	1.053	
1	0.417R	STR-I	POS.	0.41	1.05	34.54	-0.018	A,C
1	0.977	STR-I	POS.	0.41	0.98	33.30	-0.017	A,C
1	1.000L	STR-I	POS.	0.41	0.98	33.25	-0.017	A,C
1	1.000R	STR-I	POS.	98.14	0.98	33.25	2.922	
1	1.954	STR-I	POS.	98.14	0.87	31.13	3.124	
1	2.931	STR-I	POS.	98.14	0.77	28.97	3.361	
1	3.908	STR-I	POS.	98.14	0.66	26.80	3.637	
1	4.885	STR-I	POS.	98.14	0.55	24.64	3.960	
1	5.863	STR-I	POS.	98.14	0.44	22.48	4.347	
1	6.840	STR-I	POS.	98.14	0.33	20.31	4.815	

Madawaska Critical Stringer MaineDOT Trucks 5-8
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	7.817	STR-I	POS.	98.14	0.22	18.15	5.395	
1	8.794	STR-I	POS.	98.14	0.11	15.99	6.132	
1	9.771L	STR-I	POS.	98.14	0.00	14.00	7.009	
1	9.771R	STR-I	POS.	98.14	0.00	14.00	7.009	
1	10.748	STR-I	NEG.	98.14	-0.11	-15.99	6.132	
1	11.725	STR-I	NEG.	98.14	-0.22	-18.15	5.395	
1	12.702	STR-I	NEG.	98.14	-0.33	-20.31	4.815	
1	13.679	STR-I	NEG.	98.14	-0.44	-22.48	4.347	
1	14.656	STR-I	NEG.	98.14	-0.55	-24.64	3.960	
1	15.633	STR-I	NEG.	98.14	-0.66	-26.80	3.637	
1	16.610	STR-I	NEG.	98.14	-0.77	-28.97	3.361	
1	17.588	STR-I	NEG.	98.14	-0.87	-31.13	3.124	
1	18.515L	STR-I	NEG.	98.14	-0.98	-33.19	2.928	
1	18.515R	STR-I	NEG.	98.14	-0.98	-33.19	2.928	
1	18.542L	STR-I	NEG.	98.14	-0.98	-33.24	2.922	
1	18.542R	STR-I	NEG.	98.14	-0.98	-33.24	2.922	
1	18.565	STR-I	NEG.	98.14	-0.98	-33.30	2.918	
1	19.542	STR-I	NEG.	98.14	-1.09	-35.46	2.737	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Critical Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	33.78	-0.003865
	LL (SPECIAL #2)	0.00	41.85	-0.005228
	LL (SPECIAL #3)	0.00	35.98	-0.004106
	LL (SPECIAL #4)	0.00	24.45	-0.002695
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	33.78	0.003865
	LL (SPECIAL #2)	0.00	41.85	0.005228
	LL (SPECIAL #3)	0.00	35.98	0.004106
	LL (SPECIAL #4)	0.00	24.45	0.002695

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65
2	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	
2	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	

Note: Impact must be added for pier cap design

 Madawaska Critical Stringer MaineDOT Trucks 5-8
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Shear		-0.013	0.0	1	0.417R	STR-I
Operating	Not Applicable						
SPECIAL #2							
Inventory	Shear		-0.011	0.0	1	0.417R	STR-I
Operating	Not Applicable						
SPECIAL #3							
Inventory	Shear		-0.013	0.0	1	0.417R	STR-I
Operating	Not Applicable						
SPECIAL #4							
Inventory	Shear		-0.018	0.0	1	0.417R	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY	Dist. Fact.	0.600	0.600	0.600	0.600
RATING	Loc. (ft)	0.417R	0.417R	0.417R	0.417R
(IR)	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	-0.01S	-0.01S	-0.01S	-0.02S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING	Dist. Fact.	---	---	---	---
RATING	Loc. (ft)	---	---	---	---
(OR)	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					171.46
Location (ft)					18.54R
Maximum Factored Shear Resistance (kips)					98.14
Location (ft)					1.00R
					Span Length(ft) = 19.54

Madawaska Critical Stringer MaineDOT Trucks 5-8
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS

S - SHEAR RATING FACTOR CONTROLS

Madawaska Critical Stringer MainedOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Critical Stringer MainedOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
UNCURED SLAB WEB SPECIFICATION CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #2

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #3

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #4

Madawaska Critical Stringer MainedOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES (cont.)

SPECIAL #4(cont.)

DUCTILITY AND WEB/FLANGE PROPORTION CHECKS
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
WEB SPECIFICATION CHECK
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Critical Stringer MaineDOT Trucks 5-8

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Critical MaineDOT Trucks 5-8.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	13
BEAM GEOMETRY.....	13
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	14
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	14
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	14
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	14
SKEW ANGLES.....	14
SPAN LENGTHS.....	14
MATERIAL PROPERTIES.....	14
PLATE GIRDER PROPERTIES, PART 1 of 2.....	15
PLATE GIRDER PROPERTIES, PART 2 of 2.....	15
SECTION LOSSES.....	15
SLAB PROPERTIES, PART 1 OF 2.....	16
SLAB PROPERTIES, PART 2 OF 2.....	16
LOAD FACTORS.....	16
DISTRIBUTED LOADS (DC1).....	16
SPECIAL LIVE LOADING.....	17
SPECIAL AXLE LOAD.....	17
BRACE POINTS.....	17
SYSTEM SETTINGS.....	17
SECTION PROPERTIES.....	18
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	18
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	18
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	19
ANALYSIS.....	21
LOAD FACTORS AND COMBINATIONS.....	21
LIVE LOADING SUMMARY.....	21
LOAD MODIFIER.....	21
RESISTANCE FACTORS.....	22
DEAD LOADS.....	22
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	22
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	23

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	23
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	23
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
BEAM WEIGHT ANALYSIS - REACTIONS.....	24
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	24
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	25
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	25
TOTAL DC1 ANALYSIS - REACTIONS.....	26
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	26
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	28
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	28
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	29
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	30
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	30
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	31
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	32
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	32
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	32
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	32
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	33
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	34
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	34
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	34
SPECIAL #1 - ANALYSIS.....	35
UNFACTORED FLEXURAL STRESSES.....	35
USER INPUT LATERAL STRESSES.....	47
FACTORED ANALYSIS RESULTS.....	48
FACTORED LATERAL STRESSES.....	55
SPECIAL #1 - SPECIFICATION CHECKING.....	56
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	56
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	57
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	59
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	67
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	72
FLANGE LATERAL CAPACITY.....	78
NET SECTION FRACTURE CHECK.....	78
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	78

SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	83
SHEAR CAPACITY.....	86
SPECIAL #1 - RATINGS W/O FWS.....	92
RATING FACTORS - SUMMARY.....	92
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	92
RATING FACTORS - SHEAR CAPACITY.....	94
SPECIAL #2 - ANALYSIS.....	96
UNFACTORED FLEXURAL STRESSES.....	96
USER INPUT LATERAL STRESSES.....	98
FACTORED ANALYSIS RESULTS.....	98
FACTORED LATERAL STRESSES.....	100
SPECIAL #2 - SPECIFICATION CHECKING.....	101
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	101
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	101
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	102
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	105
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	107
FLANGE LATERAL CAPACITY.....	109
NET SECTION FRACTURE CHECK.....	109
SHEAR CAPACITY.....	110
SPECIAL #2 - RATINGS W/O FWS.....	112
RATING FACTORS - SUMMARY.....	112
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	112
RATING FACTORS - SHEAR CAPACITY.....	114
SPECIAL #3 - ANALYSIS.....	116
UNFACTORED FLEXURAL STRESSES.....	116
USER INPUT LATERAL STRESSES.....	118
FACTORED ANALYSIS RESULTS.....	118
FACTORED LATERAL STRESSES.....	120
SPECIAL #3 - SPECIFICATION CHECKING.....	121
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	121
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	121
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	122
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	125
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	127
FLANGE LATERAL CAPACITY.....	129
NET SECTION FRACTURE CHECK.....	129
SHEAR CAPACITY.....	130
SPECIAL #3 - RATINGS W/O FWS.....	132
RATING FACTORS - SUMMARY.....	132
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	132

RATING FACTORS - SHEAR CAPACITY.....	134
SPECIAL #4 - ANALYSIS.....	136
UNFACTORED FLEXURAL STRESSES.....	136
USER INPUT LATERAL STRESSES.....	138
FACTORED ANALYSIS RESULTS.....	138
FACTORED LATERAL STRESSES.....	140
SPECIAL #4 - SPECIFICATION CHECKING.....	141
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	141
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	141
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	142
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	145
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	147
FLANGE LATERAL CAPACITY.....	149
NET SECTION FRACTURE CHECK.....	149
SHEAR CAPACITY.....	150
SPECIAL #4 - RATINGS W/O FWS.....	152
RATING FACTORS - SUMMARY.....	152
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	152
RATING FACTORS - SHEAR CAPACITY.....	154
SUMMARY - OVERALL REACTIONS.....	156
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	156
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	157
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	158
DL REACTIONS (UNFACTORED) PER GIRDER.....	158
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	158
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	159
DL REACTIONS (UNFACTORED) PER GIRDER.....	159
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	159
OVERALL RATING SUMMARY W/O FWS.....	160
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	160
BRIDGE LOAD RATINGS W/O FWS.....	160
SUMMARY - SPECIFICATION CHECKS.....	162
SPECIFICATION CHECK WARNINGS.....	162
SPECIFICATION CHECK FAILURES.....	163

SEVERE SECTION LOSS LOAD RATINGS

SEVERE SECTION LOSS
HL-93 (TANDEM)
INVENTORY RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated      09/08/2016
*   Documentation      09/2016
*   License No.       332672
*
*****
*
*   Madawaska Severe Stringer HL-93 Inv
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
*****
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```

Madawaska Severe Stringer HL-93 Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Severe Stringer HL-93 Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer HL-93 Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.95,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.64,0
SAL 1,25,4,25,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0         (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.33        (default)
FATIGUE DYN. LOAD ALLOW.       1.15        (default)
PA TRAFFIC FACTOR              1.20        (default)
REDISTRIBUTE NEG. MOMENTS      N          (default)
IMPORTANCE FACTOR              1.0         (default)
DUCTILITY FACTOR              1.0         (default)
REDUNDANCY FACTOR              1.0         (default)
REDUNDANT LOAD PATH            R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.          1.20        (default)
SKEW ANGLE DESIGNATION         P          (default)
CONSTANT LATERAL STRESS        0. ksi    (default)
DC1S PERCENTAGE                0.         (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS          N          (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *          (computed, if necessary)
SDWK NO. OF DESIGN LANES       *          (computed, if necessary)
SDWK DEFLECTION DF             *          (computed, if necessary)

```

Madawaska Severe Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

Madawaska Severe Stringer HL-93 Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  LDF
LOAD FACTOR TYPE                SLL
LOAD FACTOR STRENGTH I          1.95
LOAD FACTOR STRENGTH IP         0
LOAD FACTOR STRENGTH IA         0
LOAD FACTOR STRENGTH II         0
LOAD FACTOR STRENGTH III        0
LOAD FACTOR STRENGTH IV         0
LOAD FACTOR STRENGTH V          0
LOAD FACTOR SERVICE II          0
LOAD FACTOR SERVICE IIA         0
LOAD FACTOR SERVICE IIB         0
LOAD FACTOR FATIGUE I           0
LOAD FACTOR DEFLECTION          0
LOAD FACTOR CONSTRUCTION        0
LOAD FACTOR SERVICE I           0
LOAD FACTOR FATIGUE II          0

COMMAND:  DLD
LOAD TYPE                        DC1
START SPAN NUMBER                1
START DISTANCE                   0 ft
END SPAN NUMBER                  1
END DISTANCE                      19.541666666 ft
START MAGNITUDE                   0.047 kip/ft
END MAGNITUDE                     0.047 kip/ft

COMMAND:  SLL
SPECIAL LL NUMBER                1
AXLE EFFECT                       N
LANE LOAD                         0.64 kip/ft
PERCENT INCREASE                  0

COMMAND:  SAL
SPECIAL LL NUMBER                1
AXLE LOAD                        25 kip
AXLE SPACING                      4 ft
AXLE LOAD                         25 kip
AXLE SPACING                      0 ft
    
```

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Severe Stringer HL-93 Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck	
			Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Severe Stringer HL-93 Inv
INPUT (cont.)

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.950	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer HL-93 Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer HL-93 Inv

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer HL-93 Inv

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Severe Stringer HL-93 Inv
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.95	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated $N_i * N_d * N_r$	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Severe Stringer HL-93 Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

 Madawaska Severe Stringer HL-93 Inv
 ANALYSIS (cont.)

 DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

 DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

 BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

 Madawaska Severe Stringer HL-93 Inv
 ANALYSIS (cont.)

 BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

 PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

 PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer HL-93 Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.000L	16.1	37.14	0.0	0.00
1	1.000R	16.1	37.14	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00

Madawaska Severe Stringer HL-93 Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00
1	17.588	29.6	-34.83	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.000L	37.15	16.0	-1.03	8.2	0.052
1	1.000R	37.15	16.0	-1.03	8.2	0.052
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148

Madawaska Severe Stringer HL-93 Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	DC1							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.8	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1 Deck Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	78.25	Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	31.6	73.54	7.51	-9.42	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	32.3	73.43	7.67	-9.63	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	32.3	73.43	N/A*	-6.57	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	59.6	68.86	N/A*	-12.12	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	83.9	64.22	N/A*	-17.05	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c	0.85*f' _c	Chk**
						(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	104.5	59.62	N/A*	-21.24	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	121.4	55.05	N/A*	-24.67	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	134.6	50.52	N/A*	-27.36	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	144.2	46.03	N/A*	-29.30	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	7.817	STR-I	POS.	150.0	41.57	N/A*	-30.50	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	152.2	37.15	N/A*	-30.94	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	150.7	32.77	N/A*	-30.63	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	150.7	32.77	N/A*	-30.63	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	152.2	-37.15	N/A*	-30.94	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	150.0	-41.57	N/A*	-30.50	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	144.2	-46.03	N/A*	-29.30	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	134.6	-50.52	N/A*	-27.36	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	121.4	-55.05	N/A*	-24.67	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	104.5	-59.62	N/A*	-21.24	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	83.9	-64.22	N/A*	-17.05	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	59.6	-68.86	N/A*	-12.12	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	31.6	-73.54	N/A*	-6.43	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f' _c (ksi)	0.85*f' _c (ksi)
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
1	19.542	STR-I	POS.	0.0	-78.25	N/A*	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	32.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	59.6	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	83.9	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	104.5	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	121.4	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	134.6	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	144.2	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	150.0	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	152.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	150.7	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	150.7	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	152.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	150.0	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	144.2	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	134.6	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	121.4	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	104.5	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	83.9	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	59.6	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	31.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to

wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-9.4	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	7.5	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-9.6	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	7.7	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3			Appendix A			
										Lr* (ft)	Cb*	Lr* (ft)	Cb*	Myc* (kip-ft)	Rpc*	
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A	
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162	
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162	
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162	
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162	
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.220	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.220	19.06	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange

(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
				Flexural Resistance						Flexural Resistance				Flexural+Lateral		Chk
Span No.	Dist. (ft)	T/B	Limit State	Flx	Local		Governing		Local		Governing		F+** (ksi)	Moment M+** (kip-ft)	***	
					Fr (ksi)	* (kip-ft)	Mr(e)** (ksi)	* (kip-ft)	Mr (kip-ft)	* (kip-ft)	Mr (kip-ft)	* (kip-ft)				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-30.9	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Stress F+** (ksi)	* Moment M+** (kip-ft)	***				
1	10.748	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	11.725	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	12.702	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	13.679	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	14.656	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	15.633	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	16.610	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	152.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	152.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	152.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	152.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	78.25	U	A
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	73.54	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	73.43	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	73.43	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	68.86	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	64.22	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	59.62	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	55.05	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	50.52	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

			SHEAR CAPACITY (cont.)			
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Shear Vu (kips)		
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	46.03	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	41.57	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	37.15	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	32.77	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	32.77	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-37.15	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-41.57	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-46.03	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-50.52	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-55.05	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-59.62	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-64.22	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-68.86	U	
		STR-IA	98.14	-0.87	U	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-73.54	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-78.25	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.443	11.1	1	0.000	STR-I
	Shear		0.686	17.2	1	0.000	STR-I
	Controlling		0.443	11.1	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	147.	1.131*	
1	10.748	STR-I	POS.	171.	5.	147.	1.131	
1	11.725	STR-I	POS.	171.	5.	147.	1.131*	
1	12.702	STR-I	POS.	171.	5.	147.	1.131*	
1	13.679	STR-I	POS.	171.	5.	147.	1.131*	
1	14.656	STR-I	POS.	171.	5.	147.	1.131*	
1	15.633	STR-I	POS.	171.	5.	147.	1.131*	
1	16.610	STR-I	POS.	171.	5.	147.	1.131*	
1	17.588	STR-I	POS.	171.	5.	147.	1.131*	
1	18.565	STR-I	POS.	171.	5.	147.	1.131*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
		BOT	STR-I	POS.	30.0	0.2	7.3	4.096	

Madawaska Severe Stringer HL-93 Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
		BOT	STR-I	POS.	30.0	0.2	7.4	4.007	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-29.9	0.443*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Severe Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	77.16	0.686	C
1	0.977	STR-I	POS.	54.06	0.98	72.55	0.732	C
1	1.000L	STR-I	POS.	54.06	0.98	72.45	0.733	C
1	1.000R	STR-I	POS.	98.14	0.98	72.45	1.341	
1	1.954	STR-I	POS.	98.14	0.87	67.99	1.431	
1	2.931	STR-I	POS.	98.14	0.77	63.46	1.534	
1	3.908	STR-I	POS.	98.14	0.66	58.96	1.653	
1	4.885	STR-I	POS.	98.14	0.55	54.51	1.790	
1	5.863	STR-I	POS.	98.14	0.44	50.09	1.951	
1	6.840	STR-I	POS.	98.14	0.33	45.70	2.140	
1	7.817	STR-I	POS.	98.14	0.22	41.35	2.368	
1	8.794	STR-I	POS.	98.14	0.11	37.04	2.646	
1	9.771L	STR-I	POS.	98.14	0.00	32.77	2.995	
1	9.771R	STR-I	POS.	98.14	0.00	32.77	2.995	
1	10.748	STR-I	NEG.	98.14	-0.11	-37.04	2.646	
1	11.725	STR-I	NEG.	98.14	-0.22	-41.35	2.368	
1	12.702	STR-I	NEG.	98.14	-0.33	-45.70	2.140	
1	13.679	STR-I	NEG.	98.14	-0.44	-50.09	1.951	
1	14.656	STR-I	NEG.	98.14	-0.55	-54.51	1.790	
1	15.633	STR-I	NEG.	98.14	-0.66	-58.96	1.653	
1	16.610	STR-I	NEG.	98.14	-0.77	-63.46	1.534	
1	17.588	STR-I	NEG.	98.14	-0.87	-67.99	1.431	

 Madawaska Severe Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-72.55	1.339	
1	19.542	STR-I	NEG.	98.14	-1.09	-77.16	1.258	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Severe Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Severe Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Severe Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	44.88
2	SPECIAL #1	0.00	44.88

Note: Impact must be added for pier cap design

 Madawaska Severe Stringer HL-93 Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----							
Inventory	Flexure	T	0.443	11.1	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
INVENTORY	Dist. Fact. 0.258
RATING	Loc. (ft) 0.000
(IR)	Limit State STR-I
	RF 0.44M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
OPERATING	Dist. Fact. ---
RATING	Loc. (ft) ---
(OR)	Limit State ---
	RF ---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 1.00R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Severe Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

Madawaska Severe Stringer HL-93 Inv

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe HL-93 Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	20
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	21
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 - ANALYSIS.....	24
UNFACTORED FLEXURAL STRESSES.....	24
USER INPUT LATERAL STRESSES.....	34
FACTORED ANALYSIS RESULTS.....	34
FACTORED LATERAL STRESSES.....	40
SPECIAL #1 - SPECIFICATION CHECKING.....	41
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	41
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	44
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	50
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	54
FLANGE LATERAL CAPACITY.....	59
NET SECTION FRACTURE CHECK.....	59
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	59
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	64
SHEAR CAPACITY.....	66
SPECIAL #1 - RATINGS W/O FWS.....	71
RATING FACTORS - SUMMARY.....	71
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	71
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	71
RATING FACTORS - SHEAR CAPACITY.....	73
SUMMARY - OVERALL REACTIONS.....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	76
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	77
DL REACTIONS (UNFACTORED) PER GIRDER.....	77
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	77
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	78
DL REACTIONS (UNFACTORED) PER GIRDER.....	78

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	78
OVERALL RATING SUMMARY W/O FWS.....	79
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	79
BRIDGE LOAD RATINGS W/O FWS.....	79
SUMMARY - SPECIFICATION CHECKS.....	80
SPECIFICATION CHECK WARNINGS.....	80
SPECIFICATION CHECK FAILURES.....	81

SEVERE SECTION LOSS
HL-93 (TANDEM)
OPERATING RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version           2.4.0.0
*   Last Updated      09/08/2016
*   Documentation      09/2016
*   License No.       332672
*
*****
*
*   Madawaska Severe Stringer HL-93 Oper
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
*****
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*****

```

Madawaska Severe Stringer HL-93 Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

```
!Madawaska Severe Stringer HL-93 Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer HL-93 Oper
TTL
TTL MADE BY: SMZ                      DATE: 09/22/17
TTL
TTL CHECKED BY: EMG                   DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ               DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.50,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.64,0
SAL 1,25,4,25,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1
```

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE       1.33          (default)
FATIGUE DYN. LOAD ALLOW.     1.15          (default)
PA TRAFFIC FACTOR             1.20          (default)
REDISTRIBUTE NEG. MOMENTS     N            (default)
IMPORTANCE FACTOR             1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR             1.0          (default)
REDUNDANT LOAD PATH           R            (default)
OUTPUT POINTS                 2            (default)
P-82 DYN. LOAD ALLOW.        1.20          (default)
SKEW ANGLE DESIGNATION       P            (default)
CONSTANT LATERAL STRESS      0. ksi       (default)
DC1S PERCENTAGE              0.            (default)

COMMAND:  GEO
BEAM/STRINGER SPACING         2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                 * ft        (computed, if necessary)
STAGGERED DIAPHRAGMS         N            (default)
NO. OF DESIGN LANES          2
DEFLECTION DF                 *            (computed, if necessary)
SDWK NO. OF DESIGN LANES     *            (computed, if necessary)
SDWK DEFLECTION DF           *            (computed, if necessary)

```

Madawaska Severe Stringer HL-93 Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  LDF
LOAD FACTOR TYPE                SLL
LOAD FACTOR STRENGTH I          1.50
LOAD FACTOR STRENGTH IP         0
LOAD FACTOR STRENGTH IA         0
LOAD FACTOR STRENGTH II         0
LOAD FACTOR STRENGTH III        0
LOAD FACTOR STRENGTH IV         0
LOAD FACTOR STRENGTH V          0
LOAD FACTOR SERVICE II          0
LOAD FACTOR SERVICE IIA         0
LOAD FACTOR SERVICE IIB         0
LOAD FACTOR FATIGUE I           0
LOAD FACTOR DEFLECTION           0
LOAD FACTOR CONSTRUCTION        0
LOAD FACTOR SERVICE I           0
LOAD FACTOR FATIGUE II          0

COMMAND:  DLD
LOAD TYPE                        DC1
START SPAN NUMBER                1
START DISTANCE                   0 ft
END SPAN NUMBER                  1
END DISTANCE                     19.541666666 ft
START MAGNITUDE                  0.047 kip/ft
END MAGNITUDE                    0.047 kip/ft

COMMAND:  SLL
SPECIAL LL NUMBER                1
AXLE EFFECT                      N
LANE LOAD                        0.64 kip/ft
PERCENT INCREASE                  0

COMMAND:  SAL
SPECIAL LL NUMBER                1
AXLE LOAD                        25 kip
AXLE SPACING                     4 ft
AXLE LOAD                        25 kip
AXLE SPACING                     0 ft
    
```

Madawaska Severe Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Severe Stringer HL-93 Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S	H E	V R Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.500	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer HL-93 Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer HL-93 Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer HL-93 Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer HL-93 Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.50	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier Used	Fatigue Load Modifier Used
Ni	Nd	Nr	Ni*Nd*Nr		
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Severe Stringer HL-93 Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

 Madawaska Severe Stringer HL-93 Oper
 ANALYSIS (cont.)

 DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

 DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

 BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

 Madawaska Severe Stringer HL-93 Oper
 ANALYSIS (cont.)

 BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

 PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

 PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer HL-93 Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.000L	16.1	37.14	0.0	0.00
1	1.000R	16.1	37.14	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00

 Madawaska Severe Stringer HL-93 Oper
 ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00
1	17.588	29.6	-34.83	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.000L	37.15	16.0	-1.03	8.2	0.052
1	1.000R	37.15	16.0	-1.03	8.2	0.052
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148

Madawaska Severe Stringer HL-93 Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
1	12.702	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.1	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.6	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.5	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1 Deck Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)			
1	0.000	STR-I	POS.	0.0	60.45	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.6	56.80	5.83	-7.31	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.1	56.71	5.96	-7.48	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.1	56.71	N/A*	-5.11	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	46.3	53.17	N/A*	-9.41	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	65.2	49.58	N/A*	-13.24	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	81.2	46.01	N/A*	-16.50	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	94.3	42.47	N/A*	-19.17	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	104.6	38.96	N/A*	-21.26	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	112.0	35.48	N/A*	-22.77	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	STR-I	POS.	116.6	32.03	N/A*	-23.70	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	118.3	28.60	N/A*	-24.05	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	117.2	25.21	N/A*	-23.81	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	117.2	25.21	N/A*	-23.81	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	118.3	-28.60	N/A*	-24.05	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	116.6	-32.03	N/A*	-23.70	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	112.0	-35.48	N/A*	-22.77	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	104.6	-38.96	N/A*	-21.26	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	94.3	-42.47	N/A*	-19.17	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	81.2	-46.01	N/A*	-16.50	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	65.2	-49.58	N/A*	-13.24	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	46.3	-53.17	N/A*	-9.41	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.6	-56.80	N/A*	-5.00	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

 Madawaska Severe Stringer HL-93 Oper
 SPECIAL #1 - ANALYSIS (cont.)

 FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.45	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	25.1	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	46.3	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	65.2	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	81.2	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	94.3	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	104.6	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	112.0	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	116.6	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	118.3	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	117.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	117.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	118.3	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	116.6	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	112.0	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	104.6	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	94.3	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	81.2	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	65.2	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	46.3	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	24.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to

wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-7.3	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	0.977	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	5.8	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-7.5	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	1.000L	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	6.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.221	19.06	1.221	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange

(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
				Flexural Resistance						Flexural Resistance				Flexural+Lateral	Chk	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Local		Governing		Local		Governing		F+*** (ksi)	Moment M+*** (kip-ft)	***	
					Fr (ksi)	* C	Mr(e)** (kip-ft)	* C	Mr (kip-ft)	* C	Mr (kip-ft)	* C				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.0	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171.	E	171.	E	N/A	118.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span		T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
No.	Dist. (ft)				Local	Governing	Local	Governing	Stress	Moment	***						
					Fr (ksi)	* Mr(e) (kip-ft)	** Fr (ksi)	* Mr (kip-ft)	* Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)					
1	10.748	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-II	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-III	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-IV	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.3	N/A				
			STR-V	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
1	11.725	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-II	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-III	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-IV	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.3	N/A				
			STR-V	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
1	12.702	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-II	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-III	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-IV	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.3	N/A				
			STR-V	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
1	13.679	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-II	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-III	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-IV	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.3	N/A				
			STR-V	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
1	14.656	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-II	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-III	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-IV	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.3	N/A				
			STR-V	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
1	15.633	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-II	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-III	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
			STR-IV	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.3	N/A				
			STR-V	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				
1	16.610	TOP	STR-I	P	-29.9	B	147.	-29.9	B	171. E	171. E	N/A	118.				
			STR-IA	P	-30.0	B	148.	-30.0	B	171. E	171. E	-1.1	N/A				

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* Fr (ksi)			
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	118.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	18.565	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	118.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	118.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	118.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-29.9	B	147.	-29.9	171.	E	171.	E	N/A	118.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA SERV-IIB	POS. POS.	1.000 1.000	101.2 101.2	24.0 24.0	0.2 0.2	C C	
1	1.000L	TOP	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	80.6 80.6 80.6	-24.0 -24.0 -24.0	-0.2 -0.2 -0.2	C C C	
		BOT	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	101.2 101.2 101.2	24.0 24.0 24.0	0.2 0.2 0.2	C C C	
1	1.000R	TOP	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	-24.0 -24.0 -24.0	-0.2 -0.2 -0.2	C C C	
		BOT	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	24.0 24.0 24.0	0.2 0.2 0.2	C C C	
1	1.954	TOP	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	-24.0 -24.0 -24.0	-0.3 -0.3 -0.3	C C C	
		BOT	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	24.0 24.0 24.0	0.3 0.3 0.3	C C C	
1	2.931	TOP	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	-24.0 -24.0 -24.0	-0.4 -0.4 -0.4	C C C	
		BOT	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	24.0 24.0 24.0	0.4 0.4 0.4	C C C	
1	3.908	TOP	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	-24.0 -24.0 -24.0	-0.6 -0.6 -0.6	C C C	
		BOT	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	24.0 24.0 24.0	0.6 0.6 0.6	C C C	
1	4.885	TOP	SERV-II SERV-IIA SERV-IIB	POS. POS. POS.	1.000 1.000 1.000	118.1 118.1 118.1	-24.0 -24.0 -24.0	-0.7 -0.7 -0.7	C C C	
		BOT	SERV-II SERV-IIA	POS. POS.	1.000 1.000	118.1 118.1	24.0 24.0	0.7 0.7	C C	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	60.45	U	A
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	56.80	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	56.71	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	56.71	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	53.17	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	49.58	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	46.01	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	42.47	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	38.96	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	35.48	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	32.03	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	28.60	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	25.21	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	25.21	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-28.60	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-32.03	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-35.48	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-38.96	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-42.47	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-46.01	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-49.58	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-53.17	U	
		STR-IA	98.14	-0.87	U	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-56.80	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
1	19.542	STR-V	98.14	-0.98	U	
		STR-I	98.14	-60.45	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.576	14.4	1	0.000	STR-I
	Shear		0.892	22.3	1	0.000	STR-I
	Controlling		0.576	14.4	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	113.	1.470*	
1	10.748	STR-I	POS.	171.	5.	113.	1.470	
1	11.725	STR-I	POS.	171.	5.	113.	1.470*	
1	12.702	STR-I	POS.	171.	5.	113.	1.470*	
1	13.679	STR-I	POS.	171.	5.	113.	1.470*	
1	14.656	STR-I	POS.	171.	5.	113.	1.470*	
1	15.633	STR-I	POS.	171.	5.	113.	1.470*	
1	16.610	STR-I	POS.	171.	5.	113.	1.470*	
1	17.588	STR-I	POS.	171.	5.	113.	1.470*	
1	18.565	STR-I	POS.	171.	5.	113.	1.470*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
		BOT	STR-I	POS.	30.0	0.2	5.6	5.325	

Madawaska Severe Stringer HL-93 Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
		BOT	STR-I	POS.	30.0	0.2	5.7	5.209	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.576*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Severe Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	59.35	0.892	C
1	0.977	STR-I	POS.	54.06	0.98	55.81	0.951	C
1	1.000L	STR-I	POS.	54.06	0.98	55.73	0.952	C
1	1.000R	STR-I	POS.	98.14	0.98	55.73	1.743	
1	1.954	STR-I	POS.	98.14	0.87	52.30	1.860	
1	2.931	STR-I	POS.	98.14	0.77	48.81	1.995	
1	3.908	STR-I	POS.	98.14	0.66	45.36	2.149	
1	4.885	STR-I	POS.	98.14	0.55	41.93	2.328	
1	5.863	STR-I	POS.	98.14	0.44	38.53	2.536	
1	6.840	STR-I	POS.	98.14	0.33	35.15	2.782	
1	7.817	STR-I	POS.	98.14	0.22	31.81	3.078	
1	8.794	STR-I	POS.	98.14	0.11	28.49	3.440	
1	9.771L	STR-I	POS.	98.14	0.00	25.21	3.893	
1	9.771R	STR-I	POS.	98.14	0.00	25.21	3.893	
1	10.748	STR-I	NEG.	98.14	-0.11	-28.49	3.440	
1	11.725	STR-I	NEG.	98.14	-0.22	-31.81	3.078	
1	12.702	STR-I	NEG.	98.14	-0.33	-35.15	2.782	
1	13.679	STR-I	NEG.	98.14	-0.44	-38.53	2.536	
1	14.656	STR-I	NEG.	98.14	-0.55	-41.93	2.328	
1	15.633	STR-I	NEG.	98.14	-0.66	-45.36	2.149	
1	16.610	STR-I	NEG.	98.14	-0.77	-48.81	1.995	
1	17.588	STR-I	NEG.	98.14	-0.87	-52.30	1.860	

 Madawaska Severe Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-55.81	1.741	
1	19.542	STR-I	NEG.	98.14	-1.09	-59.35	1.635	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Severe Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Severe Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Severe Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Lane LC (kips)
1	SPECIAL #1	0.00		44.88	
2	SPECIAL #1	0.00		44.88	

Note: Impact must be added for pier cap design

 Madawaska Severe Stringer HL-93 Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----							
Inventory	Flexure	T	0.576	14.4	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span	1		Beam Type and Size: STEEL PLATE GIRDER 14. inches
		SPECIAL #1	
INVENTORY	Dist. Fact.	0.258	
RATING	Loc. (ft)	0.000	
(IR)	Limit State	STR-I	
	RF	0.58M	
Span	1		Beam Type and Size: STEEL PLATE GIRDER 14. inches
		SPECIAL #1	
OPERATING	Dist. Fact.	---	
RATING	Loc. (ft)	---	
(OR)	Limit State	---	
	RF	---	

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 1.00R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Severe Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Severe Stringer HL-93 Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe HL-93 Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	20
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	21
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 - ANALYSIS.....	24
UNFACTORED FLEXURAL STRESSES.....	24
USER INPUT LATERAL STRESSES.....	34
FACTORED ANALYSIS RESULTS.....	34
FACTORED LATERAL STRESSES.....	40
SPECIAL #1 - SPECIFICATION CHECKING.....	41
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	41
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	44
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	50
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	54
FLANGE LATERAL CAPACITY.....	59
NET SECTION FRACTURE CHECK.....	59
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	59
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	64
SHEAR CAPACITY.....	66
SPECIAL #1 - RATINGS W/O FWS.....	71
RATING FACTORS - SUMMARY.....	71
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	71
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	71
RATING FACTORS - SHEAR CAPACITY.....	73
SUMMARY - OVERALL REACTIONS.....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	76
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	77
DL REACTIONS (UNFACTORED) PER GIRDER.....	77
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	77
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	78
DL REACTIONS (UNFACTORED) PER GIRDER.....	78

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	78
OVERALL RATING SUMMARY W/O FWS.....	79
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	79
BRIDGE LOAD RATINGS W/O FWS.....	79
SUMMARY - SPECIFICATION CHECKS.....	80
SPECIFICATION CHECK WARNINGS.....	80
SPECIFICATION CHECK FAILURES.....	81

SEVERE SECTION LOSS CL-625-ONT TRUCK INVENTORY RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Severe Stringer CL-625-ONT Truck Inv
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
*
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Madawaska Severe Stringer CL-625-ONT Truck Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska SevereStringer CL-625-ONT Truck Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer CL-625-ONT Truck Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.25
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Severe Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE       1.25
FATIGUE DYN. LOAD ALLOW.     1.15          (default)
PA TRAFFIC FACTOR             1.20          (default)
REDISTRIBUTE NEG. MOMENTS     N          (default)
IMPORTANCE FACTOR             1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR             1.0          (default)
REDUNDANT LOAD PATH           R          (default)
OUTPUT POINTS                 2          (default)
P-82 DYN. LOAD ALLOW.        1.20          (default)
SKEW ANGLE DESIGNATION       P          (default)
CONSTANT LATERAL STRESS      0. ksi      (default)
DC1S PERCENTAGE              0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING         2.583 ft
%WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                 * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS         N          (default)
NO. OF DESIGN LANES          2
DEFLECTION DF                 *          (computed, if necessary)
SDWK NO. OF DESIGN LANES     *          (computed, if necessary)
SDWK DEFLECTION DF           *          (computed, if necessary)

```

Madawaska Severe Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Severe Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Severe Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

Madawaska Severe Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Severe Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.63
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	11.240 kip
AXLE SPACING	11.81 ft
AXLE LOAD	31.473 kip
AXLE SPACING	3.94 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	39.342 kip
AXLE SPACING	21.65 ft
AXLE LOAD	26.977 kip
AXLE SPACING	0 ft

Madawaska Severe Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Severe Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

 SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

 PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID	L S	H E	V R Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

 PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Severe Stringer CL-625-ONT Truck Inv
INPUT (cont.)

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240 26.977	11.810 0.000	31.473	3.940	31.473	21.650	39.342	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer CL-625-ONT Truck Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Severe Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 ANALYSIS (cont.)

 BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

 PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

 PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.000L	17.7	41.24	0.0	0.00
1	1.000R	17.7	41.24	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00

Madawaska Severe Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00
1	17.588	32.4	-38.52	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.000L	41.24	17.7	-1.51	12.0	0.054
1	1.000R	41.24	17.7	-1.51	12.0	0.054
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150

Madawaska Severe Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
		TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*		Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)	
1	0.000	STR-I	POS.	0.0	72.95	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	29.3	68.31	6.95	-8.72	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	29.9	68.20	7.10	-8.91	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	29.9	68.20	N/A*	-6.09	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	54.7	63.67	N/A*	-11.12	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	76.2	59.02	N/A*	-15.48	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c	0.85*f' _c	Chk**
						(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	93.8	54.46	N/A*	-19.07	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	108.9	50.50	N/A*	-22.15	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	120.7	46.55	N/A*	-24.54	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	129.2	42.59	N/A*	-26.25	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	7.817	STR-I	POS.	134.2	38.63	N/A*	-27.29	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	136.0	34.68	N/A*	-27.64	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	134.4	30.72	N/A*	-27.32	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	134.4	30.72	N/A*	-27.32	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	136.0	-34.68	N/A*	-27.64	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	134.2	-38.63	N/A*	-27.29	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	129.2	-42.59	N/A*	-26.25	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	120.7	-46.55	N/A*	-24.54	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	108.9	-50.50	N/A*	-22.15	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	93.8	-54.46	N/A*	-19.07	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	76.2	-59.02	N/A*	-15.48	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	54.7	-63.67	N/A*	-11.12	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	29.3	-68.31	N/A*	-5.96	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f' _c (ksi)	0.85*f' _c (ksi)
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
1	19.542	STR-I	POS.	0.0	-72.95	N/A*	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	29.9	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	54.7	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	76.2	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	93.8	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	108.9	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	120.7	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	129.2	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	134.2	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	136.0	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	134.4	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	134.4	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	136.0	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	134.2	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	129.2	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	120.7	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	108.9	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	93.8	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	76.2	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	54.7	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	29.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to

wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-8.7	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	0.977	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	6.9	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-8.9	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	1.000L	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	7.1	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.213	19.06	1.213	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects	Code	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk		
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+*** (ksi)	Moment M+*** (kip-ft)	***	
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3				Appendix A				Factored Effects		Code Chk ***	
					Flexural Resistance				Flexural Resistance				Flexural	Effects		
					Local Fr (ksi)	* Governing Mr(e)** (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	Local Fr (ksi)	* Governing Mr (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	Stress F+** (ksi)	Stress M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-27.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Flexural Resistance		Flexural Resistance		Flexural+Lateral		Chk										
Span	Dist.	Limit	Local	Governing	Local	Governing	Stress	Moment	***							
No.	(ft)	State	Flx	Fr	* Mr(e)**	Fr	* Mr	* Mr	F+**	M+**	***					
				(ksi)	(kip-ft)	(ksi)	(kip-ft)	(kip-ft)	(ksi)	(kip-ft)						
1	10.748	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	11.725	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	12.702	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	13.679	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	14.656	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	15.633	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	16.610	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
					Local Fr (ksi)	* Mr(e) (kip-ft)	** Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	** Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)	***		
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	17.588	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	18.565	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	19.542	TOP	STR-I	P	-29.7	B	146.	-29.7	B	171.	E	171.	E	N/A	136.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	72.95	U	A
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	68.31	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	68.20	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	68.20	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	63.67	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	59.02	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	54.46	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	50.50	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	46.55	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	42.59	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	38.63	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	34.68	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	30.72	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	30.72	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-34.68	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-38.63	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-42.59	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-46.55	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-50.50	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-54.46	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-59.02	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-63.67	U	
		STR-IA	98.14	-0.87	U	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-68.31	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
1	19.542	STR-V	98.14	-0.98	U	
		STR-I	98.14	-72.95	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.498	35.0	1	0.000	STR-I
	Shear		0.737	51.8	1	0.000	STR-I
	Controlling		0.498	35.0	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	131.	1.271*	
1	10.748	STR-I	POS.	171.	5.	131.	1.271	
1	11.725	STR-I	POS.	171.	5.	131.	1.271*	
1	12.702	STR-I	POS.	171.	5.	131.	1.271*	
1	13.679	STR-I	POS.	171.	5.	131.	1.271*	
1	14.656	STR-I	POS.	171.	5.	131.	1.271*	
1	15.633	STR-I	POS.	171.	5.	131.	1.271*	
1	16.610	STR-I	POS.	171.	5.	131.	1.271*	
1	17.588	STR-I	POS.	171.	5.	131.	1.271*	
1	18.565	STR-I	POS.	171.	5.	131.	1.271*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
		BOT	STR-I	POS.	30.0	0.2	6.7	4.436	

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
		BOT	STR-I	POS.	30.0	0.2	6.9	4.340	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-26.6	0.498*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer CL-625-ONT Truck Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	71.86	0.737	C
1	0.977	STR-I	POS.	54.06	0.98	67.33	0.788	C
1	1.000L	STR-I	POS.	54.06	0.98	67.22	0.790	C
1	1.000R	STR-I	POS.	98.14	0.98	67.22	1.445	
1	1.954	STR-I	POS.	98.14	0.87	62.79	1.549	
1	2.931	STR-I	POS.	98.14	0.77	58.26	1.671	
1	3.908	STR-I	POS.	98.14	0.66	53.80	1.812	
1	4.885	STR-I	POS.	98.14	0.55	49.96	1.953	
1	5.863	STR-I	POS.	98.14	0.44	46.11	2.119	
1	6.840	STR-I	POS.	98.14	0.33	42.26	2.314	
1	7.817	STR-I	POS.	98.14	0.22	38.41	2.549	
1	8.794	STR-I	POS.	98.14	0.11	34.57	2.836	
1	9.771L	STR-I	POS.	98.14	0.00	30.72	3.195	
1	9.771R	STR-I	POS.	98.14	0.00	30.72	3.195	
1	10.748	STR-I	NEG.	98.14	-0.11	-34.57	2.836	
1	11.725	STR-I	NEG.	98.14	-0.22	-38.41	2.549	
1	12.702	STR-I	NEG.	98.14	-0.33	-42.26	2.314	
1	13.679	STR-I	NEG.	98.14	-0.44	-46.11	2.119	
1	14.656	STR-I	NEG.	98.14	-0.55	-49.96	1.953	
1	15.633	STR-I	NEG.	98.14	-0.66	-53.80	1.812	
1	16.610	STR-I	NEG.	98.14	-0.77	-58.26	1.671	
1	17.588	STR-I	NEG.	98.14	-0.87	-62.79	1.549	

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-67.33	1.443	
1	19.542	STR-I	NEG.	98.14	-1.09	-71.86	1.350	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Severe Stringer CL-625-ONT Truck Inv
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		58.78	
2	SPECIAL #1	0.00		58.78	

Note: Impact must be added for pier cap design

Madawaska Severe Stringer CL-625-ONT Truck Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.498	35.0	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

		SPECIAL #1
INVENTORY	Dist. Fact.	0.258
RATING	Loc. (ft)	0.000
(IR)	Limit State	STR-I
	RF	0.50M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

		SPECIAL #1
OPERATING	Dist. Fact.	---
RATING	Loc. (ft)	---
(OR)	Limit State	---
	RF	---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 1.00R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Severe Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Severe Stringer CL-625-ONT Truck Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe CL-625-ONT Truck Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	20
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	21
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 - ANALYSIS.....	24
UNFACTORED FLEXURAL STRESSES.....	24
USER INPUT LATERAL STRESSES.....	34
FACTORED ANALYSIS RESULTS.....	34
FACTORED LATERAL STRESSES.....	40
SPECIAL #1 - SPECIFICATION CHECKING.....	41
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	41
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	44
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	50
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	54
FLANGE LATERAL CAPACITY.....	59
NET SECTION FRACTURE CHECK.....	59
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	59
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	64
SHEAR CAPACITY.....	66
SPECIAL #1 - RATINGS W/O FWS.....	71
RATING FACTORS - SUMMARY.....	71
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	71
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	71
RATING FACTORS - SHEAR CAPACITY.....	73
SUMMARY - OVERALL REACTIONS.....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	76
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	77
DL REACTIONS (UNFACTORED) PER GIRDER.....	77
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	77
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	78
DL REACTIONS (UNFACTORED) PER GIRDER.....	78

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	78
OVERALL RATING SUMMARY W/O FWS.....	79
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	79
BRIDGE LOAD RATINGS W/O FWS.....	79
SUMMARY - SPECIFICATION CHECKS.....	80
SPECIFICATION CHECK WARNINGS.....	80
SPECIFICATION CHECK FAILURES.....	81

SEVERE SECTION LOSS
CL-625-ONT TRUCK
OPERATING RATING

```

*****
*
* Program Title      LRFD Steel Girder Design and Rating
* Program Name      STLRFD
* Version           2.4.0.0
* Last Updated      09/08/2016
* Documentation      09/2016
* License No.       332672
*
*****
*
* Madawaska Severe Stringer CL-625-ONT Truck Oper
*
* MADE BY: SMZ              DATE: 09/22/17
*
* CHECKED BY: EMG           DATE: 09/29/17
*
* BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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Madawaska Severe Stringer CL-625-ONT Truck Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Severe Stringer CL-625-ONT Truck Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer CL-625-ONT Truck Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.25
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE       1.25
FATIGUE DYN. LOAD ALLOW.     1.15          (default)
PA TRAFFIC FACTOR             1.20          (default)
REDISTRIBUTE NEG. MOMENTS     N            (default)
IMPORTANCE FACTOR             1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR             1.0          (default)
REDUNDANT LOAD PATH           R            (default)
OUTPUT POINTS                 2            (default)
P-82 DYN. LOAD ALLOW.        1.20          (default)
SKEW ANGLE DESIGNATION        P            (default)
CONSTANT LATERAL STRESS       0. ksi      (default)
DC1S PERCENTAGE               0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING         2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS          N          (default)
NO. OF DESIGN LANES           2
DEFLECTION DF                  *          (computed, if necessary)
SDWK NO. OF DESIGN LANES      *          (computed, if necessary)
SDWK DEFLECTION DF            *          (computed, if necessary)

```

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.35
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	11.240 kip
AXLE SPACING	11.81 ft
AXLE LOAD	31.473 kip
AXLE SPACING	3.94 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	39.342 kip
AXLE SPACING	21.65 ft
AXLE LOAD	26.977 kip
AXLE SPACING	0 ft

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: BRP
 START SPAN NUMBER 1
 START SPAN DISTANCE 0 ft
 END SPAN NUMBER 1
 END SPAN DISTANCE 19.5417 ft
 BRACE SPACING 9.77 ft

COMMAND: OIN
 INPUT FILE ECHO 1
 INPUT COMMANDS 1
 INPUT SUMMARY 1

COMMAND: OAN
 POINTS OF CONTRAFLEXURE 0
 COMPACTNESS CHK REDIST. 0
 LOAD MODIFIERS 1
 DEAD LOADS 1
 DISTRIBUTION FACTORS 1
 DEAD LOAD EFFECTS 1
 DEAD LOAD REACTIONS 1
 STAGING ANALYSIS 0
 LIVE LOAD EFFECTS 1
 LIVE LOAD REACTIONS 1
 HS20 EFFECTS & REACTIONS 0
 H20 EFFECTS & REACTIONS 0
 FATIGUE EFFECTS & REACT. 0
 FACTORED EFFECTS 1
 FACTORED REACTIONS 0
 SUMMARY-OVERALL REACTIONS 1

COMMAND: OSC
 DUCTILITY AND PROPORTIONS 0
 WIND EFFECTS 0
 FLEXURAL CAPACITY 1
 SHEAR CAPACITY 1
 WEB CHECKS 0
 STIFFENER CHECKS 0
 FATIGUE CHECKS 0
 FATIGUE LIFE ESTIMATION 0
 DEFLECTION CHECKS 0
 SHEAR CONNECTOR CHECKS 0
 STAGING / UNCURED CHECKS 0
 WELD CAPACITY 0
 ECONOMIC FEASIBILITY 0
 NEG MOM SERVICEABILITY 0
 SPLRFD INFORMATION 0

Madawaska Severe Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250	Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO			
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment	Shear		
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment	Shear		
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck	
			Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240 26.977	11.810 0.000	31.473	3.940	31.473	21.650	39.342	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.000L	17.7	41.24	0.0	0.00
1	1.000R	17.7	41.24	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00
1	17.588	32.4	-38.52	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.000L	41.24	17.7	-1.51	12.0	0.054
1	1.000R	41.24	17.7	-1.51	12.0	0.054
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150

Madawaska Severe Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	12.702	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
		BOT	SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.5	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.5	0.0
		TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)
1	0.000	STR-I	POS.	0.0	60.61	0.00	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
1	0.977	STR-I	POS.	24.4	56.74	5.80	-7.27	0.00	N/A**	N/A**
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.0	56.65	5.92	-7.43	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.0	56.65	N/A*	-5.08	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.6	52.88	N/A*	-9.27	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.5	49.01	N/A*	-12.92	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
						(ksi)	(ksi)	(ksi)			
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	78.3	45.22	N/A*	-15.92	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	90.9	41.92	N/A*	-18.48	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	100.8	38.63	N/A*	-20.48	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	107.8	35.33	N/A*	-21.91	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	7.817	STR-I	POS.	112.1	32.03	N/A*	-22.78	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	113.5	28.74	N/A*	-23.08	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	112.2	25.44	N/A*	-22.81	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	112.2	25.44	N/A*	-22.81	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	113.5	-28.74	N/A*	-23.08	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-32.03	N/A*	-22.78	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	107.8	-35.33	N/A*	-21.91	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	100.8	-38.63	N/A*	-20.48	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	90.9	-41.92	N/A*	-18.48	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	78.3	-45.22	N/A*	-15.92	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.5	-49.01	N/A*	-12.92	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.6	-52.88	N/A*	-9.27	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.4	-56.74	N/A*	-4.97	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f' _c (ksi)	0.85*f' _c (ksi)
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
1	19.542	STR-I	POS.	0.0	-60.61	N/A*	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	25.0	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	45.6	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	63.5	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	78.3	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	90.9	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	100.8	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	107.8	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	112.1	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	113.5	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	112.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	112.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	113.5	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	112.1	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	107.8	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	100.8	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	90.9	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	78.3	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	63.5	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	45.6	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	24.4	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-7.3	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	0.977	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	5.8	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-7.4	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	1.000L	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	5.9	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 Lr*	8.2.3 Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.214	19.06	1.214	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Local Flexural Resistance Fr (ksi)	6.10.8.2.3 Governing Flexural Resistance Mr (e)** (kip-ft)	6.10.8.2.3 Fr (ksi)	Appendix A Local Flexural Resistance Mr (kip-ft)	Appendix A Governing Flexural Resistance Mr (kip-ft)	Factored Flexural Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	-23.1	N/A	A
			STR-IA	P	-14.3 C	48.	-14.3 C	N/A	H	-1.1	N/A	
			STR-II	P	-14.3 C	48.	-14.3 C	N/A	H	-1.1	N/A	
			STR-III	P	-14.3 C	48.	-14.3 C	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3 C	48.	-14.3 C	N/A	H	-1.3	N/A	
			STR-V	P	-14.3 C	48.	-14.3 C	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	-23.1	N/A	A
			STR-IA	P	-14.3 C	48.	-14.3 C	N/A	H	-1.1	N/A	
			STR-II	P	-14.3 C	48.	-14.3 C	N/A	H	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-23.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span		T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
No.	Dist. (ft)				Local	Governing	Local	Governing	Stress	Moment	***						
					Fr (ksi)	* Mr(e) (kip-ft)	** Fr (ksi)	* Mr (kip-ft)	* Mr (kip-ft)	*	*	F+** (ksi)	M+** (kip-ft)				
1	10.748	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	11.725	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	12.702	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	13.679	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	14.656	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	15.633	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	16.610	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	17.588	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	18.565	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	19.542	TOP	STR-I	P	-29.8	B	146.	-29.8	B	171.	E	171.	E	N/A	114.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	60.61	U	A
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	56.74	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	56.65	U	A
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	56.65	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	52.88	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	49.01	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	45.22	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	41.92	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	38.63	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	35.33	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	32.03	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	28.74	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	25.44	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	25.44	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-28.74	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-32.03	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-35.33	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-38.63	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-41.92	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-45.22	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-49.01	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-52.88	U	
		STR-IA	98.14	-0.87	U	

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-56.74	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-60.61	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

Madawaska Severe Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.602	42.3	1	0.000	STR-I
	Shear		0.890	62.5	1	0.000	STR-I
	Controlling		0.602	42.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	108.	1.535*	
1	10.748	STR-I	POS.	171.	5.	108.	1.535	
1	11.725	STR-I	POS.	171.	5.	108.	1.535*	
1	12.702	STR-I	POS.	171.	5.	108.	1.535*	
1	13.679	STR-I	POS.	171.	5.	108.	1.535*	
1	14.656	STR-I	POS.	171.	5.	108.	1.535*	
1	15.633	STR-I	POS.	171.	5.	108.	1.535*	
1	16.610	STR-I	POS.	171.	5.	108.	1.535*	
1	17.588	STR-I	POS.	171.	5.	108.	1.535*	
1	18.565	STR-I	POS.	171.	5.	108.	1.535*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
		BOT	STR-I	POS.	30.0	0.2	5.6	5.356	

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
		BOT	STR-I	POS.	30.0	0.2	5.7	5.240	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-22.0	0.602*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	59.52	0.890	C
1	0.977	STR-I	POS.	54.06	0.98	55.76	0.952	C
1	1.000L	STR-I	POS.	54.06	0.98	55.67	0.953	C
1	1.000R	STR-I	POS.	98.14	0.98	55.67	1.745	
1	1.954	STR-I	POS.	98.14	0.87	52.00	1.870	
1	2.931	STR-I	POS.	98.14	0.77	48.25	2.018	
1	3.908	STR-I	POS.	98.14	0.66	44.56	2.188	
1	4.885	STR-I	POS.	98.14	0.55	41.37	2.359	
1	5.863	STR-I	POS.	98.14	0.44	38.19	2.558	
1	6.840	STR-I	POS.	98.14	0.33	35.00	2.794	
1	7.817	STR-I	POS.	98.14	0.22	31.81	3.078	
1	8.794	STR-I	POS.	98.14	0.11	28.63	3.424	
1	9.771L	STR-I	POS.	98.14	0.00	25.44	3.857	
1	9.771R	STR-I	POS.	98.14	0.00	25.44	3.857	
1	10.748	STR-I	NEG.	98.14	-0.11	-28.63	3.424	
1	11.725	STR-I	NEG.	98.14	-0.22	-31.81	3.078	
1	12.702	STR-I	NEG.	98.14	-0.33	-35.00	2.794	
1	13.679	STR-I	NEG.	98.14	-0.44	-38.19	2.558	
1	14.656	STR-I	NEG.	98.14	-0.55	-41.37	2.359	
1	15.633	STR-I	NEG.	98.14	-0.66	-44.56	2.188	
1	16.610	STR-I	NEG.	98.14	-0.77	-48.25	2.018	
1	17.588	STR-I	NEG.	98.14	-0.87	-52.00	1.870	

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-55.76	1.742	
1	19.542	STR-I	NEG.	98.14	-1.09	-59.52	1.631	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Vehicle (kips)	LC	Minimum Reaction Lane (kips)	LC	Vehicle (kips)	LC	Maximum Reaction Lane (kips)	LC
1	SPECIAL #1	0.00				58.78			
2	SPECIAL #1	0.00				58.78			

Note: Impact must be added for pier cap design

 Madawaska Severe Stringer CL-625-ONT Truck Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory Flexure	T	0.602	42.3	1	0.000	STR-I
Operating Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span	1	Beam Type and Size: STEEL PLATE GIRDER	14. inches
		SPECIAL #1	
INVENTORY	Dist. Fact.	0.258	
RATING	Loc. (ft)	0.000	
(IR)	Limit State	STR-I	
	RF	0.60M	
Span	1	Beam Type and Size: STEEL PLATE GIRDER	14. inches
		SPECIAL #1	
OPERATING	Dist. Fact.	---	
RATING	Loc. (ft)	---	
(OR)	Limit State	---	
	RF	---	

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 1.00R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Severe Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Severe Stringer CL-625-ONT Truck Oper

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe CL-625-ONT Truck Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	20
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	21
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 - ANALYSIS.....	24
UNFACTORED FLEXURAL STRESSES.....	24
USER INPUT LATERAL STRESSES.....	34
FACTORED ANALYSIS RESULTS.....	34
FACTORED LATERAL STRESSES.....	40
SPECIAL #1 - SPECIFICATION CHECKING.....	41
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	41
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	44
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	50
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	54
FLANGE LATERAL CAPACITY.....	59
NET SECTION FRACTURE CHECK.....	59
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	59
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	64
SHEAR CAPACITY.....	66
SPECIAL #1 - RATINGS W/O FWS.....	71
RATING FACTORS - SUMMARY.....	71
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	71
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	71
RATING FACTORS - SHEAR CAPACITY.....	73
SUMMARY - OVERALL REACTIONS.....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	76
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	77
DL REACTIONS (UNFACTORED) PER GIRDER.....	77
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	77
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	78
DL REACTIONS (UNFACTORED) PER GIRDER.....	78

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	78
OVERALL RATING SUMMARY W/O FWS.....	79
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	79
BRIDGE LOAD RATINGS W/O FWS.....	79
SUMMARY - SPECIFICATION CHECKS.....	80
SPECIFICATION CHECK WARNINGS.....	80
SPECIFICATION CHECK FAILURES.....	81

SEVERE SECTION LOSS CL-625-ONT LANE LOAD INVENTORY RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated       09/08/2016
*   Documentation       09/2016
*   License No.        332672
*
*****
*
*   Madawaska Severe Stringer CL-625-ONT Lane Inv
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG           DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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Madawaska Severe Stringer CL-625-ONT Lane Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Severe Stringer CL-625-ONT Lane Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer CL-625-ONT Lane Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.0
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.0	
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

 Madawaska Severe Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.63
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.617 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	8.992 kip
AXLE SPACING	11.81 ft
AXLE LOAD	25.179 kip
AXLE SPACING	3.94 ft
AXLE LOAD	25.179 kip
AXLE SPACING	21.65 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	21.582 kip
AXLE SPACING	0 ft

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Severe Stringer CL-625-ONT Lane Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Severe Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.000	Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO			
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S	H E	V A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck	
			Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Severe Stringer CL-625-ONT Lane InvINPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992 21.582	11.810 0.000	25.179	3.940	25.179	21.650	31.473	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer CL-625-ONT Lane Inv

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer CL-625-ONT Lane Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.000L	12.8	29.64	0.0	0.00
1	1.000R	12.8	29.64	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00
1	17.588	23.5	-27.55	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.000L	29.65	12.7	-0.98	7.8	0.040
1	1.000R	29.65	12.7	-0.98	7.8	0.040
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112

Madawaska Severe Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
		TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1 Deck Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. (ksi)	Flexural Stress* Bm. Top (ksi)	Flexural Stress* Top S/R (ksi)	Compress. Limits* 0.6*f'c (ksi)	Compress. Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	52.98	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.39	5.09	-6.39	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	21.9	49.31	5.20	-6.53	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	21.9	49.31	N/A*	-4.46	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.2	45.84	N/A*	-8.16	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	56.0	42.31	N/A*	-11.39	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	69.2	38.86	N/A*	-14.07	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	80.5	35.84	N/A*	-16.36	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	89.3	32.84	N/A*	-18.15	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	95.7	29.87	N/A*	-19.45	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	STR-I	POS.	99.7	26.93	N/A*	-20.26	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	101.2	24.02	N/A*	-20.57	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	100.3	21.13	N/A*	-20.39	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	100.3	21.13	N/A*	-20.39	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	101.2	-24.02	N/A*	-20.57	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	99.7	-26.93	N/A*	-20.26	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	95.7	-29.87	N/A*	-19.45	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	89.3	-32.84	N/A*	-18.15	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	80.5	-35.84	N/A*	-16.36	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	69.2	-38.86	N/A*	-14.07	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	56.0	-42.31	N/A*	-11.39	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.2	-45.84	N/A*	-8.16	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.39	N/A*	-4.36	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f' _c (ksi)	0.85*f' _c (ksi)
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
1	19.542	STR-I	POS.	0.0	-52.98	N/A*	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	21.9	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	40.2	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	56.0	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	69.2	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	80.5	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	89.3	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	95.7	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	99.7	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	101.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	100.3	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	100.3	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	101.2	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	99.7	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	95.7	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	89.3	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	80.5	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	69.2	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	56.0	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	40.2	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	21.5	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to

wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. Dp <= 0.1*Dt, Mn calculated using A6.10.7.1.2-1

B. Dp > 0.1*Dt, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-6.4	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	5.1	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-6.5	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	5.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb* (ft)	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.225	19.06	1.225	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange

(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
				Flexural Resistance						Flexural Resistance		Flexural+Lateral		Chk		
Span No.	Dist. (ft)	T/B	Limit State	Flx	Local		Governing		Local		Governing		F+** (ksi)	Moment M+** (kip-ft)	***	
					Fr (ksi)	* C	Mr(e)** (kip-ft)	* C	Mr (kip-ft)	* C	Mr (kip-ft)	* C				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	Governing Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-20.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span		T/B	Limit State	Flexural Resistance					Flexural Resistance					Flexural+Lateral		Chk	
No.	Dist. (ft)			Local	Governing	Local	Governing	Local	Governing	Stress	Moment	***					
				Flx	Fr (ksi)	* Mr(e) (kip-ft)	** Fr (ksi)	* Mr (kip-ft)	* Fr (ksi)	* Mr (kip-ft)	* Fr (ksi)	F+** (ksi)	M+** (kip-ft)				
1	10.748	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	11.725	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	12.702	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	13.679	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	14.656	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	15.633	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	16.610	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	17.588	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	18.565	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	101.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	52.98	U	
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	49.39	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	49.31	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	49.31	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	45.84	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	42.31	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	38.86	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	35.84	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	32.84	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	29.87	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	26.93	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	24.02	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	21.13	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	21.13	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-24.02	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-26.93	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-29.87	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-32.84	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-35.84	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-38.86	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-42.31	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-45.84	U	
		STR-IA	98.14	-0.87	U	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-49.39	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-52.98	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.679	38.2	1	0.000	STR-I
	Shear		1.021	57.4	1	0.000	STR-I
	Controlling		0.679	38.2	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	96.	1.732*	
1	10.748	STR-I	POS.	171.	5.	96.	1.732	
1	11.725	STR-I	POS.	171.	5.	96.	1.732*	
1	12.702	STR-I	POS.	171.	5.	96.	1.732*	
1	13.679	STR-I	POS.	171.	5.	96.	1.732*	
1	14.656	STR-I	POS.	171.	5.	96.	1.732*	
1	15.633	STR-I	POS.	171.	5.	96.	1.732*	
1	16.610	STR-I	POS.	171.	5.	96.	1.732*	
1	17.588	STR-I	POS.	171.	5.	96.	1.732*	
1	18.565	STR-I	POS.	171.	5.	96.	1.732*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
		BOT	STR-I	POS.	30.0	0.2	4.9	6.133	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
		BOT	STR-I	POS.	30.0	0.2	5.0	6.001	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-19.5	0.679*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer CL-625-ONT Lane Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	51.89	1.021	
1	0.977	STR-I	POS.	54.06	0.98	48.41	1.096	
1	1.000L	STR-I	POS.	54.06	0.98	48.33	1.098	
1	1.000R	STR-I	POS.	98.14	0.98	48.33	2.010	
1	1.954	STR-I	POS.	98.14	0.87	44.96	2.163	
1	2.931	STR-I	POS.	98.14	0.77	41.54	2.344	
1	3.908	STR-I	POS.	98.14	0.66	38.21	2.551	
1	4.885	STR-I	POS.	98.14	0.55	35.29	2.765	
1	5.863	STR-I	POS.	98.14	0.44	32.40	3.015	
1	6.840	STR-I	POS.	98.14	0.33	29.54	3.311	
1	7.817	STR-I	POS.	98.14	0.22	26.71	3.666	
1	8.794	STR-I	POS.	98.14	0.11	23.91	4.100	
1	9.771L	STR-I	POS.	98.14	0.00	21.13	4.643	
1	9.771R	STR-I	POS.	98.14	0.00	21.13	4.643	
1	10.748	STR-I	NEG.	98.14	-0.11	-23.91	4.100	
1	11.725	STR-I	NEG.	98.14	-0.22	-26.71	3.666	
1	12.702	STR-I	NEG.	98.14	-0.33	-29.54	3.311	
1	13.679	STR-I	NEG.	98.14	-0.44	-32.40	3.015	
1	14.656	STR-I	NEG.	98.14	-0.55	-35.29	2.765	
1	15.633	STR-I	NEG.	98.14	-0.66	-38.21	2.551	
1	16.610	STR-I	NEG.	98.14	-0.77	-41.54	2.344	
1	17.588	STR-I	NEG.	98.14	-0.87	-44.96	2.163	

 Madawaska Severe Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-48.41	2.007	
1	19.542	STR-I	NEG.	98.14	-1.09	-51.89	1.870	

Madawaska Severe Stringer CL-625-ONT Lane Inv
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Severe Stringer CL-625-ONT Lane Inv
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Severe Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		47.03	
2	SPECIAL #1	0.00		47.03	

Note: Impact must be added for pier cap design

Madawaska Severe Stringer CL-625-ONT Lane Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.679	38.2	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.258
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 0.68M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 1.00R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Severe Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

 Madawaska Severe Stringer CL-625-ONT Lane Inv

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe CL-625-ONT Lane Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	20
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	21
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 - ANALYSIS.....	24
UNFACTORED FLEXURAL STRESSES.....	24
USER INPUT LATERAL STRESSES.....	34
FACTORED ANALYSIS RESULTS.....	34
FACTORED LATERAL STRESSES.....	40
SPECIAL #1 - SPECIFICATION CHECKING.....	41
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	41
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	44
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	50
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	54
FLANGE LATERAL CAPACITY.....	59
NET SECTION FRACTURE CHECK.....	59
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	59
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	64
SHEAR CAPACITY.....	66
SPECIAL #1 - RATINGS W/O FWS.....	71
RATING FACTORS - SUMMARY.....	71
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	71
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	71
RATING FACTORS - SHEAR CAPACITY.....	73
SUMMARY - OVERALL REACTIONS.....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	76
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	77
DL REACTIONS (UNFACTORED) PER GIRDER.....	77
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	77
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	78
DL REACTIONS (UNFACTORED) PER GIRDER.....	78

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	78
OVERALL RATING SUMMARY W/O FWS.....	79
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	79
BRIDGE LOAD RATINGS W/O FWS.....	79
SUMMARY - SPECIFICATION CHECKS.....	80
SPECIFICATION CHECK WARNINGS.....	80
SPECIFICATION CHECK FAILURES.....	81

SEVERE SECTION LOSS
CL-625-ONT LANE LOAD
OPERATING RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version           2.4.0.0
*   Last Updated      09/08/2016
*   Documentation      09/2016
*   License No.       332672
*
*****
*
*   Madawaska Severe Stringer CL-625-ONT Lane Oper
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
*****
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Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Severe Stringer CL-625-ONT Lane Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer CL-625-ONT Lane Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.00
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0         (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.00
FATIGUE DYN. LOAD ALLOW.       1.15         (default)
PA TRAFFIC FACTOR              1.20         (default)
REDISTRIBUTE NEG. MOMENTS      N           (default)
IMPORTANCE FACTOR              1.0         (default)
DUCTILITY FACTOR              1.0         (default)
REDUNDANCY FACTOR              1.0         (default)
REDUNDANT LOAD PATH            R           (default)
OUTPUT POINTS                  2           (default)
P-82 DYN. LOAD ALLOW.          1.20         (default)
SKEW ANGLE DESIGNATION         P           (default)
CONSTANT LATERAL STRESS        0. ksi     (default)
DC1S PERCENTAGE                0.         (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
%WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft       (computed, if necessary)
STAGGERED DIAPHRAGMS          N           (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *           (computed, if necessary)
SDWK NO. OF DESIGN LANES       *           (computed, if necessary)
SDWK DEFLECTION DF             *           (computed, if necessary)

```

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.35
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.617 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	8.992 kip
AXLE SPACING	11.81 ft
AXLE LOAD	25.179 kip
AXLE SPACING	3.94 ft
AXLE LOAD	25.179 kip
AXLE SPACING	21.65 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	21.582 kip
AXLE SPACING	0 ft

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.000	Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO			
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck	
			Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Severe Stringer CL-625-ONT Lane Oper
INPUT (cont.)

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992 21.582	11.810 0.000	25.179	3.940	25.179	21.650	31.473	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer CL-625-ONT Lane Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer CL-625-ONT Lane Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer CL-625-ONT Lane Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Severe Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Severe Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.000L	12.8	29.64	0.0	0.00
1	1.000R	12.8	29.64	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00

Madawaska Severe Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00
1	17.588	23.5	-27.55	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.000L	29.65	12.7	-0.98	7.8	0.040
1	1.000R	29.65	12.7	-0.98	7.8	0.040
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112

Madawaska Severe Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.8	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	12.702	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
		BOT	SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.8	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*		Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)	
1	0.000	STR-I	POS.	0.0	44.07	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	18.0	41.08	4.26	-5.34	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	18.4	41.01	4.35	-5.46	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	18.4	41.01	N/A*	-3.73	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	33.6	38.11	N/A*	-6.83	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	46.9	35.17	N/A*	-9.53	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
						(ksi)	(ksi)	(ksi)			
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	57.9	32.30	N/A*	-11.77	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	67.3	29.77	N/A*	-13.69	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	74.7	27.27	N/A*	-15.19	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	80.1	24.79	N/A*	-16.28	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	7.817	STR-I	POS.	83.4	22.34	N/A*	-16.96	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	84.7	19.91	N/A*	-17.22	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	84.0	17.50	N/A*	-17.08	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	84.0	17.50	N/A*	-17.08	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	84.7	-19.91	N/A*	-17.22	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	83.4	-22.34	N/A*	-16.96	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	80.1	-24.79	N/A*	-16.28	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	74.7	-27.27	N/A*	-15.19	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	67.3	-29.77	N/A*	-13.69	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	57.9	-32.30	N/A*	-11.77	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	46.9	-35.17	N/A*	-9.53	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	33.6	-38.11	N/A*	-6.83	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	18.0	-41.08	N/A*	-3.65	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f' _c (ksi)	0.85*f' _c (ksi)
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**
1	19.542	STR-I	POS.	0.0	-44.07	N/A*	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	18.4	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	33.6	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	46.9	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	57.9	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	67.3	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	74.7	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	80.1	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	83.4	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	84.7	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	84.0	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	84.0	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	84.7	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	83.4	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	80.1	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	74.7	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	67.3	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	57.9	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	46.9	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	33.6	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	18.0	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to

wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)		
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.3	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	4.3	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.5	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	4.4	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.226	19.06	1.226	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
				Flexural Resistance						Flexural Resistance				Flexural+Lateral	Chk	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Local		Governing		Local		Governing		F+*** (ksi)	Moment M+*** (kip-ft)	***	
					Fr (ksi)	* C	Mr(e)** (kip-ft)	* C	Mr (kip-ft)	* C	Mr (kip-ft)	* C				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-17.2	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk ***		
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)			
1	10.748	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	11.725	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	12.702	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	13.679	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	14.656	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	15.633	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	16.610	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	17.588	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	18.565	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	85.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	44.07	U	
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	41.08	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	41.01	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	41.01	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	38.11	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	35.17	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	32.30	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	29.77	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	27.27	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	24.79	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	22.34	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	19.91	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	17.50	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	17.50	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-19.91	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-22.34	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-24.79	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-27.27	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-29.77	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-32.30	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-35.17	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-38.11	U	
		STR-IA	98.14	-0.87	U	

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-41.08	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-44.07	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.820	46.1	1	0.000	STR-I
	Shear		1.232	69.3	1	0.000	STR-I
	Controlling		0.820	46.1	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	79.	2.092*	
1	10.748	STR-I	POS.	171.	5.	79.	2.092	
1	11.725	STR-I	POS.	171.	5.	79.	2.092*	
1	12.702	STR-I	POS.	171.	5.	79.	2.092*	
1	13.679	STR-I	POS.	171.	5.	79.	2.092*	
1	14.656	STR-I	POS.	171.	5.	79.	2.092*	
1	15.633	STR-I	POS.	171.	5.	79.	2.092*	
1	16.610	STR-I	POS.	171.	5.	79.	2.092*	
1	17.588	STR-I	POS.	171.	5.	79.	2.092*	
1	18.565	STR-I	POS.	171.	5.	79.	2.092*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
		BOT	STR-I	POS.	30.0	0.2	4.0	7.405	

Madawaska Severe Stringer CL-625-ONT Lane Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
		BOT	STR-I	POS.	30.0	0.2	4.1	7.245	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-16.1	0.820*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	42.97	1.232	
1	0.977	STR-I	POS.	54.06	0.98	40.09	1.324	
1	1.000L	STR-I	POS.	54.06	0.98	40.03	1.326	
1	1.000R	STR-I	POS.	98.14	0.98	40.03	2.427	
1	1.954	STR-I	POS.	98.14	0.87	37.24	2.612	
1	2.931	STR-I	POS.	98.14	0.77	34.41	2.830	
1	3.908	STR-I	POS.	98.14	0.66	31.65	3.080	
1	4.885	STR-I	POS.	98.14	0.55	29.23	3.339	
1	5.863	STR-I	POS.	98.14	0.44	26.83	3.641	
1	6.840	STR-I	POS.	98.14	0.33	24.46	3.998	
1	7.817	STR-I	POS.	98.14	0.22	22.12	4.427	
1	8.794	STR-I	POS.	98.14	0.11	19.80	4.951	
1	9.771L	STR-I	POS.	98.14	0.00	17.50	5.607	
1	9.771R	STR-I	POS.	98.14	0.00	17.50	5.607	
1	10.748	STR-I	NEG.	98.14	-0.11	-19.80	4.951	
1	11.725	STR-I	NEG.	98.14	-0.22	-22.12	4.427	
1	12.702	STR-I	NEG.	98.14	-0.33	-24.46	3.998	
1	13.679	STR-I	NEG.	98.14	-0.44	-26.83	3.641	
1	14.656	STR-I	NEG.	98.14	-0.55	-29.23	3.339	
1	15.633	STR-I	NEG.	98.14	-0.66	-31.65	3.080	
1	16.610	STR-I	NEG.	98.14	-0.77	-34.41	2.830	
1	17.588	STR-I	NEG.	98.14	-0.87	-37.24	2.612	

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-40.09	2.423	
1	19.542	STR-I	NEG.	98.14	-1.09	-42.97	2.258	

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Severe Stringer CL-625-ONT Lane Oper
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		47.03	
2	SPECIAL #1	0.00		47.03	

Note: Impact must be added for pier cap design

Madawaska Severe Stringer CL-625-ONT Lane Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.820	46.1	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.258
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 0.82M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 1.00R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 1.00R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Severe Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

 Madawaska Severe Stringer CL-625-ONT Lane Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe CL-625-ONT Lane Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	20
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	21
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 - ANALYSIS.....	24
UNFACTORED FLEXURAL STRESSES.....	24
USER INPUT LATERAL STRESSES.....	34
FACTORED ANALYSIS RESULTS.....	34
FACTORED LATERAL STRESSES.....	40
SPECIAL #1 - SPECIFICATION CHECKING.....	41
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	41
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	44
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	50
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	54
FLANGE LATERAL CAPACITY.....	59
NET SECTION FRACTURE CHECK.....	59
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	59
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	64
SHEAR CAPACITY.....	66
SPECIAL #1 - RATINGS W/O FWS.....	71
RATING FACTORS - SUMMARY.....	71
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	71
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	71
RATING FACTORS - SHEAR CAPACITY.....	73
SUMMARY - OVERALL REACTIONS.....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	75
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	76
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	77
DL REACTIONS (UNFACTORED) PER GIRDER.....	77
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	77
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	78
DL REACTIONS (UNFACTORED) PER GIRDER.....	78

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	78
OVERALL RATING SUMMARY W/O FWS.....	79
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	79
BRIDGE LOAD RATINGS W/O FWS.....	79
SUMMARY - SPECIFICATION CHECKS.....	80
SPECIFICATION CHECK WARNINGS.....	80
SPECIFICATION CHECK FAILURES.....	81

SEVERE SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 1-4

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*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Severe Stringer MaineDOT Trucks 1-4
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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Madawaska Severe Stringer MaineDOT Trucks 1-4
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Severe Stringer MaineDOT Trucks 1-4
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer MaineDOT Trucks 1-4
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,20,4,20,20,16.7,4,16.7,4,16.6,0
SLL 2,N,0,0
SAL 2,10,10,16.6,4,16.7,4,16.7,10,17,20.333,17,0
SLL 3,N,0,0
SAL 3,10,10,16.6,4,16.7,4,16.7,12,14,4,14,0
SLL 4,N,0,0
SAL 4,10,10,16.1,10,24.2,10,18.9,4,18.8,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:
 Real value out of range
 The value entered for CONC. DENSITY FOR LOADS is
 less than the lower range limit.
 Value Entered: 0.
 Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.45
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	20 kip
AXLE SPACING	4 ft
AXLE LOAD	20 kip
AXLE SPACING	20 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.6 kip
AXLE SPACING	0 ft

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

2
N
0 kip/ft
0

COMMAND: SAL
SPECIAL LL NUMBER
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING

2
10 kip
10 ft
16.6 kip
4 ft
16.7 kip
4 ft
16.7 kip
10 ft
17 kip
20.333 ft
17 kip
0 ft

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

3
N
0 kip/ft
0

COMMAND: SAL
SPECIAL LL NUMBER
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING

3
10 kip
10 ft
16.6 kip
4 ft
16.7 kip
4 ft
16.7 kip
12 ft
14 kip
4 ft
14 kip
0 ft

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLL
 SPECIAL LL NUMBER
 AXLE EFFECT
 LANE LOAD
 PERCENT INCREASE

4
 N
 0 kip/ft
 0

COMMAND: SAL
 SPECIAL LL NUMBER

4
 AXLE LOAD 10 kip
 AXLE SPACING 10 ft
 AXLE LOAD 16.1 kip
 AXLE SPACING 10 ft
 AXLE LOAD 24.2 kip
 AXLE SPACING 10 ft
 AXLE LOAD 18.9 kip
 AXLE SPACING 4 ft
 AXLE LOAD 18.8 kip
 AXLE SPACING 0 ft

COMMAND: BRP

START SPAN NUMBER 1
 START SPAN DISTANCE 0 ft
 END SPAN NUMBER 1
 END SPAN DISTANCE 19.5417 ft
 BRACE SPACING 9.77 ft

COMMAND: OIN

INPUT FILE ECHO 1
 INPUT COMMANDS 1
 INPUT SUMMARY 1

COMMAND: OAN

POINTS OF CONTRAFLEXURE 0
 COMPACTNESS CHK REDIST. 0
 LOAD MODIFIERS 1
 DEAD LOADS 1
 DISTRIBUTION FACTORS 1
 DEAD LOAD EFFECTS 1
 DEAD LOAD REACTIONS 1
 STAGING ANALYSIS 0
 LIVE LOAD EFFECTS 1
 LIVE LOAD REACTIONS 1
 HS20 EFFECTS & REACTIONS 0
 H20 EFFECTS & REACTIONS 0
 FATIGUE EFFECTS & REACT. 0
 FACTORED EFFECTS 1
 FACTORED REACTIONS 0
 SUMMARY-OVERALL REACTIONS 1

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

COMMAND: ORF

VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*	(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y	(default)
AASHTO/PENNDOT SPECS	P	(default)
PRINT DIMENSION FILE	N	(default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Actual (in)	Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

Madawaska Severe Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	20.000	4.000	20.000	20.000	16.700	4.000
	16.700	4.000	16.600	0.000				
2	10.000	10.000	16.600	4.000	16.700	4.000	16.700	10.000
	17.000	20.333	17.000	0.000				
3	10.000	10.000	16.600	4.000	16.700	4.000	16.700	12.000
	14.000	4.000	14.000	0.000				
4	10.000	10.000	16.100	10.000	24.200	10.000	18.900	4.000
	18.800	0.000						

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.5	29.75	0.0	0.00
1	1.000L	12.8	29.71	0.0	0.00
1	1.000R	12.8	29.71	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	6.69	0.0	0.00
1	9.771R	61.0	6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.565	12.5	-29.75	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.75	0.0	0.00	0.0	0.000
1	0.977	29.75	12.5	-0.80	6.4	0.041
1	1.000L	29.71	12.8	-0.82	6.5	0.042
1	1.000R	29.71	12.8	-0.82	6.5	0.042
1	1.954	27.76	23.3	-1.60	12.1	0.082
1	2.931	25.76	32.5	-2.39	17.1	0.121
1	3.908	23.77	39.9	-3.19	21.5	0.156
1	4.885	21.77	45.7	-4.71	29.7	0.187
1	5.863	19.78	49.9	-6.31	37.1	0.214
1	6.840	17.78	52.3	-7.91	43.2	0.235
1	7.817	15.89	53.4	-9.50	47.9	0.250
1	8.794	14.29	54.0	-11.10	51.3	0.261
1	9.771L	12.69	53.3	-12.69	53.3	0.264
1	9.771R	12.69	53.3	-12.69	53.3	0.264
1	10.748	11.10	51.3	-14.29	54.0	0.261
1	11.725	9.50	47.9	-15.89	53.4	0.250
1	12.702	7.91	43.2	-17.78	52.3	0.235
1	13.679	6.31	37.1	-19.78	49.9	0.214
1	14.656	4.71	29.7	-21.77	45.7	0.187
1	15.633	3.19	21.5	-23.77	39.9	0.156
1	16.610	2.39	17.1	-25.76	32.5	0.121

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simultaneous Moment (k-ft)	Maximum Negative Shear (kips)	Simultaneous Moment (k-ft)	Maximum Deflect. (in)
1	17.588	1.60	12.1	-27.76	23.3	0.082
1	18.565	0.80	6.4	-29.75	12.5	0.041
1	19.542	0.00	0.0	-31.75	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.75	0.00	0.000000	-0.004085
2	31.75	0.00	0.004085	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	39.79	0.00	0.00	0.00
2	39.79	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simultaneous Shear (kips)	Maximum Negative Moment (k-ft)	Simultaneous Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.7	30.11	0.0	0.00
1	1.000L	12.9	30.05	0.0	0.00
1	1.000R	12.9	30.05	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.565	12.7	-30.11	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.79	0.0	0.00	0.0	0.000
1	0.977	30.11	12.7	-0.68	5.4	0.041
1	1.000L	30.05	12.9	-0.69	5.5	0.042
1	1.000R	30.05	12.9	-0.69	5.5	0.042
1	1.954	27.76	23.3	-1.36	10.3	0.082
1	2.931	25.76	32.5	-2.03	14.5	0.121
1	3.908	23.77	39.9	-2.71	18.2	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.71	18.2	-23.77	39.9	0.156
1	16.610	2.03	14.5	-25.76	32.5	0.121
1	17.588	1.36	10.3	-27.76	23.3	0.082
1	18.565	0.68	5.4	-30.11	12.7	0.041
1	19.542	0.00	0.0	-32.79	0.0	0.000

Madawaska Severe Stringer MaineDOT Trucks 1-4ANALYSIS (cont.)
-----SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.79	0.00	0.000000	-0.004085
2	32.79	0.00	0.004085	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	41.09	0.00	0.00	0.00
2	41.09	0.00	0.00	0.00

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.98	0.0	0.00
1	1.000L	12.9	29.93	0.0	0.00
1	1.000R	12.9	29.93	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	-0.65	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.565	12.6	-29.98	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.38	0.0	0.00	0.0	0.000
1	0.977	29.98	12.6	-0.67	5.3	0.041
1	1.000L	29.93	12.9	-0.68	5.4	0.042
1	1.000R	29.93	12.9	-0.68	5.4	0.042
1	1.954	27.76	23.3	-1.33	10.1	0.082
1	2.931	25.76	32.5	-2.00	14.3	0.121
1	3.908	23.77	39.9	-2.67	17.9	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.67	17.9	-23.77	39.9	0.156
1	16.610	2.00	14.3	-25.76	32.5	0.121
1	17.588	1.33	10.1	-27.76	23.3	0.082
1	18.565	0.67	5.3	-29.98	12.6	0.041
1	19.542	0.00	0.0	-32.38	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.38	0.00	0.000000	-0.004085
2	32.38	0.00	0.004085	0.000000

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	40.57	0.00	0.00	0.00
2	40.57	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	30.00	0.0	0.00
1	1.000L	12.9	29.95	0.0	0.00
1	1.000R	12.9	29.95	0.0	0.00
1	1.954	23.1	27.53	0.0	0.00
1	2.931	31.6	25.06	0.0	0.00
1	3.908	38.0	22.59	0.0	0.00
1	4.885	42.3	5.12	0.0	0.00
1	5.863	45.3	17.99	0.0	0.00
1	6.840	48.6	10.29	0.0	0.00
1	7.817	50.9	7.82	0.0	0.00
1	8.794	51.2	-9.73	0.0	0.00
1	9.771L	50.3	-11.97	0.0	0.00
1	9.771R	50.3	-11.97	0.0	0.00
1	10.748	51.2	9.73	0.0	0.00
1	11.725	50.9	-7.82	0.0	0.00
1	12.702	48.6	-10.29	0.0	0.00
1	13.679	45.3	-17.99	0.0	0.00
1	14.656	42.3	-20.12	0.0	0.00
1	15.633	38.0	-22.59	0.0	0.00
1	16.610	31.6	-25.06	0.0	0.00
1	17.588	23.1	-27.53	0.0	0.00
1	18.565	12.6	-30.00	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.47	0.0	0.00	0.0	0.000
1	0.977	30.00	12.6	-0.97	7.7	0.036
1	1.000L	29.95	12.9	-0.99	7.9	0.037
1	1.000R	29.95	12.9	-0.99	7.9	0.037
1	1.954	27.53	23.1	-1.93	14.6	0.069
1	2.931	25.06	31.6	-2.90	20.7	0.102
1	3.908	22.59	38.0	-3.86	26.0	0.131
1	4.885	20.12	42.3	-4.83	30.4	0.157
1	5.863	17.99	45.3	-5.95	35.0	0.178
1	6.840	16.48	48.5	-7.46	40.7	0.194
1	7.817	14.98	50.4	-8.96	45.2	0.205
1	8.794	13.48	51.0	-10.47	48.4	0.207
1	9.771L	11.97	50.3	-11.97	50.3	0.208
1	9.771R	11.97	50.3	-11.97	50.3	0.208
1	10.748	10.47	48.4	-13.48	51.0	0.207
1	11.725	8.96	45.2	-14.98	50.4	0.205
1	12.702	7.46	40.7	-16.48	48.5	0.194
1	13.679	5.95	35.0	-17.99	45.3	0.178
1	14.656	4.83	30.4	-20.12	42.3	0.157
1	15.633	3.86	26.0	-22.59	38.0	0.131
1	16.610	2.90	20.7	-25.06	31.6	0.102
1	17.588	1.93	14.6	-27.53	23.1	0.069
1	18.565	0.97	7.7	-30.00	12.6	0.036
1	19.542	0.00	0.0	-32.47	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.47	0.00	0.000000	-0.003600
2	32.47	0.00	0.003600	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	40.69	0.00	0.00	0.00
2	40.69	0.00	0.00	0.00

Madawaska Severe Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.010491
2	0.010491	0.000000

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1							
					Inst*	Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
		TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0

Madawaska Severe Stringer MainedOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)
1	0.000	STR-I	POS.	0.0	47.13	0.00	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
1	0.977	STR-I	POS.	19.1	44.13	4.54	-5.70	0.00	N/A**	N/A**
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.6	44.06	4.64	-5.82	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.6	44.06	N/A*	-3.98	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-7.27	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-10.13	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-12.47	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-14.30	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-15.61	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-16.74	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	7.817	STR-I	POS.	88.7	23.25	N/A*	-18.03	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.83	N/A*	-18.80	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	18.41	N/A*	-19.05	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	18.41	N/A*	-19.05	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.83	N/A*	-18.80	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.25	N/A*	-18.03	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-16.74	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-15.61	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-14.30	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-12.47	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-10.13	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-7.27	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.1	-44.13	N/A*	-3.89	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. Top Bm. Top S/R (ksi) (ksi) (ksi)	Compress. Limits* 0.6*f' _c 0.85*f' _c (ksi) (ksi)	Code Chk**
1	18.565	SERV-I	POS.	0.8	-0.79	0.16 -0.16 0.00	N/A** N/A**	
		SERV-II	POS.	0.8	-0.79	0.16 -0.16 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16 -0.16 0.00	N/A** N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16 -0.16 0.00	N/A** N/A**	
1	19.542	STR-I	POS.	0.0	-47.13	N/A* 0.00 0.00	N/A** N/A**	
		STR-IA	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		STR-II	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		STR-III	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		STR-IV	POS.	0.0	-1.31	N/A* 0.00 0.00	N/A** N/A**	
		STR-V	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		SERV-I	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-II	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	19.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	35.7	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	49.8	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	61.3	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	70.3	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	76.8	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	82.4	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	88.7	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	92.5	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	93.7	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	93.7	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	92.5	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	88.7	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	82.4	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	76.8	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	70.3	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	61.3	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	49.8	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	35.7	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	19.1	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to

wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.7	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	0.977	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	4.5	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.8	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	1.000L	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	4.6	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
				Flexural Resistance						Flexural Resistance				Flexural+Lateral	Chk	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Local		Governing		Local		Governing		F+** (ksi)	Moment M+** (kip-ft)	***	
					Fr (ksi)	* (kip-ft)	Mr(e)** (ksi)	* (kip-ft)	Mr (kip-ft)	* (kip-ft)	Mr (kip-ft)	* (kip-ft)				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Fr (ksi)			
1	10.748	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	11.725	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	12.702	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	13.679	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	14.656	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	15.633	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	16.610	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* Fr (ksi)			
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-30.0	B	148.	-30.0	171.	E	171.	E	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	18.565	TOP	STR-I	P	-30.0	B	148.	-30.0	171.	E	171.	E	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	171.	E	171.	E	N/A	94.	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IA	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	171.	E	171.	E	-1.3	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1
 If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
 flexure, so the top flange capacity is based on compression. However, the total
 factored stress (F+) in the top flange is tensile. The user should verify the
 acceptability of the section by comparing the top flange stress (F+) to the flexural
 resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
 transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	47.13	U	
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	44.13	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	44.06	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	44.06	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	41.13	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	38.12	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	35.12	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	32.12	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	29.12	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	26.12	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	23.25	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	20.83	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	18.41	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	18.41	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-20.83	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-23.25	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-26.12	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-29.12	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-32.12	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-35.12	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-38.12	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-41.13	U	
		STR-IA	98.14	-0.87	U	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-44.13	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-47.13	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.736	36.8	1	0.000	STR-I
	Shear		1.151	57.5	1	0.000	STR-I
	Controlling		0.736	36.8	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	88.	1.879	
1	10.748	STR-I	POS.	171.	5.	88.	1.879*	
1	11.725	STR-I	POS.	171.	5.	88.	1.879*	
1	12.702	STR-I	POS.	171.	5.	88.	1.879*	
1	13.679	STR-I	POS.	171.	5.	88.	1.879*	
1	14.656	STR-I	POS.	171.	5.	88.	1.879*	
1	15.633	STR-I	POS.	171.	5.	88.	1.879*	
1	16.610	STR-I	POS.	171.	5.	88.	1.879*	
1	17.588	STR-I	POS.	171.	5.	88.	1.879*	
1	18.565	STR-I	POS.	171.	5.	88.	1.879*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
		BOT	STR-I	POS.	30.0	0.2	4.3	6.922	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
		BOT	STR-I	POS.	30.0	0.2	4.4	6.773	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	46.04	1.151	
1	0.977	STR-I	POS.	54.06	0.98	43.14	1.230	
1	1.000L	STR-I	POS.	54.06	0.98	43.08	1.232	
1	1.000R	STR-I	POS.	98.14	0.98	43.08	2.255	
1	1.954	STR-I	POS.	98.14	0.87	40.25	2.416	
1	2.931	STR-I	POS.	98.14	0.77	37.36	2.606	
1	3.908	STR-I	POS.	98.14	0.66	34.47	2.828	
1	4.885	STR-I	POS.	98.14	0.55	31.57	3.091	
1	5.863	STR-I	POS.	98.14	0.44	28.68	3.407	
1	6.840	STR-I	POS.	98.14	0.33	25.79	3.793	
1	7.817	STR-I	POS.	98.14	0.22	23.03	4.251	
1	8.794	STR-I	POS.	98.14	0.11	20.72	4.731	
1	9.771L	STR-I	POS.	98.14	0.00	18.41	5.332	
1	9.771R	STR-I	POS.	98.14	0.00	18.41	5.332	
1	10.748	STR-I	NEG.	98.14	-0.11	-20.72	4.731	
1	11.725	STR-I	NEG.	98.14	-0.22	-23.03	4.251	
1	12.702	STR-I	NEG.	98.14	-0.33	-25.79	3.793	
1	13.679	STR-I	NEG.	98.14	-0.44	-28.68	3.407	
1	14.656	STR-I	NEG.	98.14	-0.55	-31.57	3.091	
1	15.633	STR-I	NEG.	98.14	-0.66	-34.47	2.828	
1	16.610	STR-I	NEG.	98.14	-0.77	-37.36	2.606	
1	17.588	STR-I	NEG.	98.14	-0.87	-40.25	2.416	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-43.14	2.252	
1	19.542	STR-I	NEG.	98.14	-1.09	-46.04	2.108	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1 Deck Pour* (ksi)	Inst* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.63	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.4	44.65	4.59	-5.76	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.8	44.55	4.69	-5.89	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.8	44.55	N/A*	-4.02	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-7.27	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-10.13	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-12.47	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-14.30	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-15.61	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-16.74	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	N/A*	-18.03	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	N/A*	-18.80	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	N/A*	-19.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	17.11	N/A*	-19.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	N/A*	-18.80	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	N/A*	-18.03	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-16.74	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-15.61	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-14.30	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-12.47	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-10.13	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-7.27	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.4	-44.65	N/A*	-3.94	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4SPECIAL #2 - ANALYSIS (cont.)
-----FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R		0.6*f'c	0.85*f'c	Chk**
						(ksi)	(ksi)	(ksi)		(ksi)	(ksi)	
1	19.542	STR-I	POS.	0.0	-48.63	N/A*	0.00	0.00		N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	19.8	D	
1	1.954	STR-I	POS.	171.5	35.7	D	
1	2.931	STR-I	POS.	171.5	49.8	D	
1	3.908	STR-I	POS.	171.5	61.3	D	
1	4.885	STR-I	POS.	171.5	70.3	D	
1	5.863	STR-I	POS.	171.5	76.8	D	
1	6.840	STR-I	POS.	171.5	82.4	D	
1	7.817	STR-I	POS.	171.5	88.7	D	
1	8.794	STR-I	POS.	171.5	92.5	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	171.5	93.7	D	
1	9.771R	STR-I	POS.	171.5	93.7	D	
1	10.748	STR-I	POS.	171.5	92.5	D	
1	11.725	STR-I	POS.	171.5	88.7	D	
1	12.702	STR-I	POS.	171.5	82.4	D	
1	13.679	STR-I	POS.	171.5	76.8	D	
1	14.656	STR-I	POS.	171.5	70.3	D	
1	15.633	STR-I	POS.	171.5	61.3	D	
1	16.610	STR-I	POS.	171.5	49.8	D	
1	17.588	STR-I	POS.	171.5	35.7	D	
1	18.565	STR-I	POS.	171.5	19.4	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.8	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	4.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.9	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	4.7	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Governing				Appendix A Flexural Resistance Governing				Factored Stress F+*** (ksi)	Effects Flexural+Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* C	Mr (kip-ft)	* C				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H				
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	9.771R	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	10.748	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	11.725	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	12.702	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	13.679	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	14.656	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	15.633	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	16.610	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	17.588	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	18.565	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1
 If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
 flexure, so the top flange capacity is based on compression. However, the total
 factored stress (F+) in the top flange is tensile. The user should verify the
 acceptability of the section by comparing the top flange stress (F+) to the flexural
 resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
 transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	54.06	48.63	U	
1	0.977	STR-I	54.06	44.65	U	
1	1.000L	STR-I	54.06	44.55	U	
1	1.000R	STR-I	98.14	44.55	U	
1	1.954	STR-I	98.14	41.13	U	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	2.931	STR-I	98.14	38.12	U	
1	3.908	STR-I	98.14	35.12	U	
1	4.885	STR-I	98.14	32.12	U	
1	5.863	STR-I	98.14	29.12	U	
1	6.840	STR-I	98.14	26.12	U	
1	7.817	STR-I	98.14	23.11	U	
1	8.794	STR-I	98.14	20.11	U	
1	9.771L	STR-I	98.14	17.11	U	
1	9.771R	STR-I	98.14	17.11	U	
1	10.748	STR-I	98.14	-20.11	U	
1	11.725	STR-I	98.14	-23.11	U	
1	12.702	STR-I	98.14	-26.12	U	
1	13.679	STR-I	98.14	-29.12	U	
1	14.656	STR-I	98.14	-32.12	U	
1	15.633	STR-I	98.14	-35.12	U	
1	16.610	STR-I	98.14	-38.12	U	
1	17.588	STR-I	98.14	-41.13	U	
1	18.565	STR-I	98.14	-44.65	U	
1	19.542	STR-I	98.14	-48.63	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.736	34.6	1	0.000	STR-I
	Shear		1.114	52.4	1	0.000	STR-I
	Controlling		0.736	34.6	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	88.	1.879	
1	10.748	STR-I	POS.	171.	5.	88.	1.879*	
1	11.725	STR-I	POS.	171.	5.	88.	1.879*	
1	12.702	STR-I	POS.	171.	5.	88.	1.879*	
1	13.679	STR-I	POS.	171.	5.	88.	1.879*	
1	14.656	STR-I	POS.	171.	5.	88.	1.879*	
1	15.633	STR-I	POS.	171.	5.	88.	1.879*	
1	16.610	STR-I	POS.	171.	5.	88.	1.879*	
1	17.588	STR-I	POS.	171.	5.	88.	1.879*	
1	18.565	STR-I	POS.	171.	5.	88.	1.879*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
		BOT	STR-I	POS.	30.0	0.2	4.4	6.839	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
		BOT	STR-I	POS.	30.0	0.2	4.4	6.695	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	47.54	1.114	
1	0.977	STR-I	POS.	54.06	0.98	43.66	1.216	
1	1.000L	STR-I	POS.	54.06	0.98	43.57	1.218	
1	1.000R	STR-I	POS.	98.14	0.98	43.57	2.230	
1	1.954	STR-I	POS.	98.14	0.87	40.25	2.416	
1	2.931	STR-I	POS.	98.14	0.77	37.36	2.606	
1	3.908	STR-I	POS.	98.14	0.66	34.47	2.828	
1	4.885	STR-I	POS.	98.14	0.55	31.57	3.091	
1	5.863	STR-I	POS.	98.14	0.44	28.68	3.407	
1	6.840	STR-I	POS.	98.14	0.33	25.79	3.793	
1	7.817	STR-I	POS.	98.14	0.22	22.89	4.277	
1	8.794	STR-I	POS.	98.14	0.11	20.00	4.901	
1	9.771L	STR-I	POS.	98.14	0.00	17.11	5.736	
1	9.771R	STR-I	POS.	98.14	0.00	17.11	5.736	
1	10.748	STR-I	NEG.	98.14	-0.11	-20.00	4.901	
1	11.725	STR-I	NEG.	98.14	-0.22	-22.89	4.277	
1	12.702	STR-I	NEG.	98.14	-0.33	-25.79	3.793	
1	13.679	STR-I	NEG.	98.14	-0.44	-28.68	3.407	
1	14.656	STR-I	NEG.	98.14	-0.55	-31.57	3.091	
1	15.633	STR-I	NEG.	98.14	-0.66	-34.47	2.828	
1	16.610	STR-I	NEG.	98.14	-0.77	-37.36	2.606	
1	17.588	STR-I	NEG.	98.14	-0.87	-40.25	2.416	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-43.66	2.225	
1	19.542	STR-I	NEG.	98.14	-1.09	-47.54	2.041	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.2	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1 Inst* (ksi)	Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.7	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.3	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.6	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.04	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.46	4.57	-5.74	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.7	44.38	4.67	-5.86	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.7	44.38	N/A*	-4.00	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-7.27	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-10.13	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-12.47	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-14.30	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-15.61	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-16.74	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	N/A*	-18.03	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	N/A*	-18.80	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	N/A*	-19.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	17.11	N/A*	-19.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	N/A*	-18.80	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	N/A*	-18.03	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-16.74	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-15.61	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-14.30	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-12.47	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-10.13	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-7.27	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.46	N/A*	-3.92	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4SPECIAL #3 - ANALYSIS (cont.)
-----FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R				
						(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	Chk**
1	19.542	STR-I	POS.	0.0	-48.04	N/A*	0.00	0.00	N/A**	N/A**		

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	19.7	D	
1	1.954	STR-I	POS.	171.5	35.7	D	
1	2.931	STR-I	POS.	171.5	49.8	D	
1	3.908	STR-I	POS.	171.5	61.3	D	
1	4.885	STR-I	POS.	171.5	70.3	D	
1	5.863	STR-I	POS.	171.5	76.8	D	
1	6.840	STR-I	POS.	171.5	82.4	D	
1	7.817	STR-I	POS.	171.5	88.7	D	
1	8.794	STR-I	POS.	171.5	92.5	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	171.5	93.7	D	
1	9.771R	STR-I	POS.	171.5	93.7	D	
1	10.748	STR-I	POS.	171.5	92.5	D	
1	11.725	STR-I	POS.	171.5	88.7	D	
1	12.702	STR-I	POS.	171.5	82.4	D	
1	13.679	STR-I	POS.	171.5	76.8	D	
1	14.656	STR-I	POS.	171.5	70.3	D	
1	15.633	STR-I	POS.	171.5	61.3	D	
1	16.610	STR-I	POS.	171.5	49.8	D	
1	17.588	STR-I	POS.	171.5	35.7	D	
1	18.565	STR-I	POS.	171.5	19.3	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.7	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	4.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.9	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	4.7	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	0.977	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	1.000L	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	1.000R	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	1.954	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	2.931	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	3.908	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	4.885	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	5.863	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	6.840	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A
1	7.817	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-19.1	N/A	A

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H				
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.1	N/A	A
1	9.771R	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	10.748	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	11.725	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	12.702	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	13.679	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	14.656	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	15.633	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	16.610	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	17.588	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	18.565	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	94.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
- F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
- M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
- w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive
flexure, so the top flange capacity is based on compression. However, the total
factored stress (F+) in the top flange is tensile. The user should verify the
acceptability of the section by comparing the top flange stress (F+) to the flexural
resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange
transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	54.06	48.04	U	
1	0.977	STR-I	54.06	44.46	U	
1	1.000L	STR-I	54.06	44.38	U	
1	1.000R	STR-I	98.14	44.38	U	
1	1.954	STR-I	98.14	41.13	U	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	2.931	STR-I	98.14	38.12	U	
1	3.908	STR-I	98.14	35.12	U	
1	4.885	STR-I	98.14	32.12	U	
1	5.863	STR-I	98.14	29.12	U	
1	6.840	STR-I	98.14	26.12	U	
1	7.817	STR-I	98.14	23.11	U	
1	8.794	STR-I	98.14	20.11	U	
1	9.771L	STR-I	98.14	17.11	U	
1	9.771R	STR-I	98.14	17.11	U	
1	10.748	STR-I	98.14	-20.11	U	
1	11.725	STR-I	98.14	-23.11	U	
1	12.702	STR-I	98.14	-26.12	U	
1	13.679	STR-I	98.14	-29.12	U	
1	14.656	STR-I	98.14	-32.12	U	
1	15.633	STR-I	98.14	-35.12	U	
1	16.610	STR-I	98.14	-38.12	U	
1	17.588	STR-I	98.14	-41.13	U	
1	18.565	STR-I	98.14	-44.46	U	
1	19.542	STR-I	98.14	-48.04	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.736	32.4	1	0.000	STR-I
	Shear		1.128	49.6	1	0.000	STR-I
	Controlling		0.736	32.4	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	88.	1.879	
1	10.748	STR-I	POS.	171.	5.	88.	1.879*	
1	11.725	STR-I	POS.	171.	5.	88.	1.879*	
1	12.702	STR-I	POS.	171.	5.	88.	1.879*	
1	13.679	STR-I	POS.	171.	5.	88.	1.879*	
1	14.656	STR-I	POS.	171.	5.	88.	1.879*	
1	15.633	STR-I	POS.	171.	5.	88.	1.879*	
1	16.610	STR-I	POS.	171.	5.	88.	1.879*	
1	17.588	STR-I	POS.	171.	5.	88.	1.879*	
1	18.565	STR-I	POS.	171.	5.	88.	1.879*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
		BOT	STR-I	POS.	30.0	0.2	4.3	6.869	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
		BOT	STR-I	POS.	30.0	0.2	4.4	6.723	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-18.0	0.736*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	46.95	1.128	
1	0.977	STR-I	POS.	54.06	0.98	43.48	1.221	
1	1.000L	STR-I	POS.	54.06	0.98	43.40	1.223	
1	1.000R	STR-I	POS.	98.14	0.98	43.40	2.239	
1	1.954	STR-I	POS.	98.14	0.87	40.25	2.416	
1	2.931	STR-I	POS.	98.14	0.77	37.36	2.606	
1	3.908	STR-I	POS.	98.14	0.66	34.47	2.828	
1	4.885	STR-I	POS.	98.14	0.55	31.57	3.091	
1	5.863	STR-I	POS.	98.14	0.44	28.68	3.407	
1	6.840	STR-I	POS.	98.14	0.33	25.79	3.793	
1	7.817	STR-I	POS.	98.14	0.22	22.89	4.277	
1	8.794	STR-I	POS.	98.14	0.11	20.00	4.901	
1	9.771L	STR-I	POS.	98.14	0.00	17.11	5.736	
1	9.771R	STR-I	POS.	98.14	0.00	17.11	5.736	
1	10.748	STR-I	NEG.	98.14	-0.11	-20.00	4.901	
1	11.725	STR-I	NEG.	98.14	-0.22	-22.89	4.277	
1	12.702	STR-I	NEG.	98.14	-0.33	-25.79	3.793	
1	13.679	STR-I	NEG.	98.14	-0.44	-28.68	3.407	
1	14.656	STR-I	NEG.	98.14	-0.55	-31.57	3.091	
1	15.633	STR-I	NEG.	98.14	-0.66	-34.47	2.828	
1	16.610	STR-I	NEG.	98.14	-0.77	-37.36	2.606	
1	17.588	STR-I	NEG.	98.14	-0.87	-40.25	2.416	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-43.48	2.235	
1	19.542	STR-I	NEG.	98.14	-1.09	-46.95	2.067	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.1	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.4	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	7.7	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.9	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.4	0.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.9	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.2	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-7.7	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	7.7	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.4	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4

SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.18	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.49	4.58	-5.74	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.7	44.40	4.67	-5.87	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.7	44.40	N/A*	-4.01	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.5	40.80	N/A*	-7.21	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	48.5	37.11	N/A*	-9.87	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	58.5	33.42	N/A*	-11.89	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	65.3	29.73	N/A*	-13.27	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	70.2	26.52	N/A*	-14.28	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	75.3	24.23	N/A*	-15.31	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	79.0	21.94	N/A*	-16.05	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	79.5	19.65	N/A*	-16.16	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	78.3	17.36	N/A*	-15.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	78.3	17.36	N/A*	-15.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	79.5	-19.65	N/A*	-16.16	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	79.0	-21.94	N/A*	-16.05	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	75.3	-24.23	N/A*	-15.31	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	70.2	-26.52	N/A*	-14.28	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	65.3	-29.73	N/A*	-13.27	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	58.5	-33.42	N/A*	-11.89	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	48.5	-37.11	N/A*	-9.87	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.5	-40.80	N/A*	-7.21	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.49	N/A*	-3.92	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 1-4SPECIAL #4 - ANALYSIS (cont.)
-----FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R		0.6*f'c	0.85*f'c	Chk**
						(ksi)	(ksi)	(ksi)		(ksi)	(ksi)	
1	19.542	STR-I	POS.	0.0	-48.18	N/A*	0.00	0.00		N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	19.7	D	
1	1.954	STR-I	POS.	171.5	35.5	D	
1	2.931	STR-I	POS.	171.5	48.5	D	
1	3.908	STR-I	POS.	171.5	58.5	D	
1	4.885	STR-I	POS.	171.5	65.3	D	
1	5.863	STR-I	POS.	171.5	70.2	D	
1	6.840	STR-I	POS.	171.5	75.3	D	
1	7.817	STR-I	POS.	171.5	79.0	D	
1	8.794	STR-I	POS.	171.5	79.5	D	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	171.5	78.3	D	
1	9.771R	STR-I	POS.	171.5	78.3	D	
1	10.748	STR-I	POS.	171.5	79.5	D	
1	11.725	STR-I	POS.	171.5	79.0	D	
1	12.702	STR-I	POS.	171.5	75.3	D	
1	13.679	STR-I	POS.	171.5	70.2	D	
1	14.656	STR-I	POS.	171.5	65.3	D	
1	15.633	STR-I	POS.	171.5	58.5	D	
1	16.610	STR-I	POS.	171.5	48.5	D	
1	17.588	STR-I	POS.	171.5	35.5	D	
1	18.565	STR-I	POS.	171.5	19.3	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.7	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	4.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-5.9	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	4.7	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.182	19.06	1.182	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Governing				Appendix A Flexural Resistance Governing				Factored Stress F+*** (ksi)	Effects Flexural+Lateral Moment M+*** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* C	Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* C	Mr (kip-ft)	* C				
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H				
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-16.2	N/A	A
1	9.771R	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	10.748	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	11.725	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	12.702	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	13.679	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	14.656	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	15.633	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	16.610	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	17.588	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	18.565	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	
1	19.542	TOP	STR-I	P	-29.0	B	143.	-29.0	B	171.	E	171.	E	N/A	79.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1
 If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
 flexure, so the top flange capacity is based on compression. However, the total
 factored stress (F+) in the top flange is tensile. The user should verify the
 acceptability of the section by comparing the top flange stress (F+) to the flexural
 resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
 transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	54.06	48.18	U	
1	0.977	STR-I	54.06	44.49	U	
1	1.000L	STR-I	54.06	44.40	U	
1	1.000R	STR-I	98.14	44.40	U	
1	1.954	STR-I	98.14	40.80	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	2.931	STR-I	98.14	37.11	U	
1	3.908	STR-I	98.14	33.42	U	
1	4.885	STR-I	98.14	29.73	U	
1	5.863	STR-I	98.14	26.52	U	
1	6.840	STR-I	98.14	24.23	U	
1	7.817	STR-I	98.14	21.94	U	
1	8.794	STR-I	98.14	19.65	U	
1	9.771L	STR-I	98.14	17.36	U	
1	9.771R	STR-I	98.14	17.36	U	
1	10.748	STR-I	98.14	-19.65	U	
1	11.725	STR-I	98.14	-21.94	U	
1	12.702	STR-I	98.14	-24.23	U	
1	13.679	STR-I	98.14	-26.52	U	
1	14.656	STR-I	98.14	-29.73	U	
1	15.633	STR-I	98.14	-33.42	U	
1	16.610	STR-I	98.14	-37.11	U	
1	17.588	STR-I	98.14	-40.80	U	
1	18.565	STR-I	98.14	-44.49	U	
1	19.542	STR-I	98.14	-48.18	U	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.878	38.6	1	0.000	STR-I
	Shear		1.125	49.5	1	0.000	STR-I
	Controlling		0.878	38.6	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	74.	2.229*	
1	10.748	STR-I	POS.	171.	5.	74.	2.229*	
1	11.725	STR-I	POS.	171.	5.	74.	2.229*	
1	12.702	STR-I	POS.	171.	5.	74.	2.229*	
1	13.679	STR-I	POS.	171.	5.	74.	2.229*	
1	14.656	STR-I	POS.	171.	5.	74.	2.229*	
1	15.633	STR-I	POS.	171.	5.	74.	2.229*	
1	16.610	STR-I	POS.	171.	5.	74.	2.229*	
1	17.588	STR-I	POS.	171.	5.	74.	2.229*	
1	18.565	STR-I	POS.	171.	5.	74.	2.229*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
		BOT	STR-I	POS.	30.0	0.2	4.3	6.864	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
		BOT	STR-I	POS.	30.0	0.2	4.4	6.719	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-15.1	0.878*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	47.09	1.125	
1	0.977	STR-I	POS.	54.06	0.98	43.51	1.220	
1	1.000L	STR-I	POS.	54.06	0.98	43.42	1.222	
1	1.000R	STR-I	POS.	98.14	0.98	43.42	2.237	
1	1.954	STR-I	POS.	98.14	0.87	39.92	2.436	
1	2.931	STR-I	POS.	98.14	0.77	36.34	2.679	
1	3.908	STR-I	POS.	98.14	0.66	32.76	2.975	
1	4.885	STR-I	POS.	98.14	0.55	29.18	3.344	
1	5.863	STR-I	POS.	98.14	0.44	26.08	3.746	
1	6.840	STR-I	POS.	98.14	0.33	23.90	4.092	
1	7.817	STR-I	POS.	98.14	0.22	21.72	4.508	
1	8.794	STR-I	POS.	98.14	0.11	19.54	5.017	
1	9.771L	STR-I	POS.	98.14	0.00	17.36	5.653	
1	9.771R	STR-I	POS.	98.14	0.00	17.36	5.653	
1	10.748	STR-I	NEG.	98.14	-0.11	-19.54	5.017	
1	11.725	STR-I	NEG.	98.14	-0.22	-21.72	4.508	
1	12.702	STR-I	NEG.	98.14	-0.33	-23.90	4.092	
1	13.679	STR-I	NEG.	98.14	-0.44	-26.08	3.746	
1	14.656	STR-I	NEG.	98.14	-0.55	-29.18	3.344	
1	15.633	STR-I	NEG.	98.14	-0.66	-32.76	2.975	
1	16.610	STR-I	NEG.	98.14	-0.77	-36.34	2.679	
1	17.588	STR-I	NEG.	98.14	-0.87	-39.92	2.436	

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-43.51	2.233	
1	19.542	STR-I	NEG.	98.14	-1.09	-47.09	2.061	

Madawaska Severe Stringer MaineDOT Trucks 1-4
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Severe Stringer MaineDOT Trucks 1-4
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.75	-0.004085
	LL (SPECIAL #2)	0.00	32.79	-0.004085
	LL (SPECIAL #3)	0.00	32.38	-0.004085
	LL (SPECIAL #4)	0.00	32.47	-0.003600
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.75	0.004085
	LL (SPECIAL #2)	0.00	32.79	0.004085
	LL (SPECIAL #3)	0.00	32.38	0.004085
	LL (SPECIAL #4)	0.00	32.47	0.003600

Note: Rotation is about an axis normal to the centerline of the beam.

Madawaska Severe Stringer MaineDOT Trucks 1-4
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69
2	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Lane LC (kips)
1	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	
2	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	

Note: Impact must be added for pier cap design

Madawaska Severe Stringer MaineDOT Trucks 1-4
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.736	36.8	1	0.000	STR-I
Operating	Not Applicable						
SPECIAL #2							
Inventory	Flexure	T	0.736	34.6	1	0.000	STR-I
Operating	Not Applicable						
SPECIAL #3							
Inventory	Flexure	T	0.736	32.4	1	0.000	STR-I
Operating	Not Applicable						
SPECIAL #4							
Inventory	Flexure	T	0.878	38.6	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY	Dist. Fact.	0.258	0.258	0.258	0.258
RATING	Loc. (ft)	0.000	0.000	0.000	0.000
(IR)	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	0.74M	0.74M	0.74M	0.88M
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING	Dist. Fact.	---	---	---	---
RATING	Loc. (ft)	---	---	---	---
(OR)	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					171.46
Location (ft)					1.00R
Maximum Factored Shear Resistance (kips)					98.14
Location (ft)					1.00R
					Span Length(ft) = 19.54

Madawaska Severe Stringer MaineDOT Trucks 1-4
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS

S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer MaineDOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Severe Stringer MaineDOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

SPECIAL #2

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

SPECIAL #3

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

SPECIAL #4

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

 Madawaska Severe Stringer MaineDOT Trucks 1-4

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe MaineDOT Trucks 1-4.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	14
LOAD FACTORS.....	14
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	15
SPECIAL AXLE LOAD.....	15
BRACE POINTS.....	15
SYSTEM SETTINGS.....	15
SECTION PROPERTIES.....	16
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	17
ANALYSIS.....	18
LOAD FACTORS AND COMBINATIONS.....	18
LIVE LOADING SUMMARY.....	18
LOAD MODIFIER.....	18
RESISTANCE FACTORS.....	19
DEAD LOADS.....	19
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	19
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	19

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	20
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	20
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
BEAM WEIGHT ANALYSIS - REACTIONS.....	21
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	21
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	22
TOTAL DC1 ANALYSIS - REACTIONS.....	22
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	24
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	25
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	26
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	26
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	28
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	29
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	29
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	29
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #1 - ANALYSIS.....	31
UNFACTORED FLEXURAL STRESSES.....	31
USER INPUT LATERAL STRESSES.....	41
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	47
SPECIAL #1 - SPECIFICATION CHECKING.....	48
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	48
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	51
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	56
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	57
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	61
FLANGE LATERAL CAPACITY.....	66
NET SECTION FRACTURE CHECK.....	66
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	66

SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	71
SHEAR CAPACITY.....	73
SPECIAL #1 - RATINGS W/O FWS.....	78
RATING FACTORS - SUMMARY.....	78
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	78
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	78
RATING FACTORS - SHEAR CAPACITY.....	80
SPECIAL #2 - ANALYSIS.....	82
UNFACTORED FLEXURAL STRESSES.....	82
USER INPUT LATERAL STRESSES.....	83
FACTORED ANALYSIS RESULTS.....	84
FACTORED LATERAL STRESSES.....	85
SPECIAL #2 - SPECIFICATION CHECKING.....	86
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	86
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	87
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	89
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	89
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	91
FLANGE LATERAL CAPACITY.....	93
NET SECTION FRACTURE CHECK.....	93
SHEAR CAPACITY.....	93
SPECIAL #2 - RATINGS W/O FWS.....	95
RATING FACTORS - SUMMARY.....	95
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	95
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	95
RATING FACTORS - SHEAR CAPACITY.....	97
SPECIAL #3 - ANALYSIS.....	99
UNFACTORED FLEXURAL STRESSES.....	99
USER INPUT LATERAL STRESSES.....	100
FACTORED ANALYSIS RESULTS.....	101
FACTORED LATERAL STRESSES.....	102
SPECIAL #3 - SPECIFICATION CHECKING.....	103
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	103
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	104
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	106
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	106
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	108
FLANGE LATERAL CAPACITY.....	110
NET SECTION FRACTURE CHECK.....	110
SHEAR CAPACITY.....	110
SPECIAL #3 - RATINGS W/O FWS.....	112

RATING FACTORS - SUMMARY.....	112
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	112
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	112
RATING FACTORS - SHEAR CAPACITY.....	114
SPECIAL #4 - ANALYSIS.....	116
UNFACTORED FLEXURAL STRESSES.....	116
USER INPUT LATERAL STRESSES.....	117
FACTORED ANALYSIS RESULTS.....	118
FACTORED LATERAL STRESSES.....	119
SPECIAL #4 - SPECIFICATION CHECKING.....	120
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	120
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	121
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	123
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	123
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	125
FLANGE LATERAL CAPACITY.....	127
NET SECTION FRACTURE CHECK.....	127
SHEAR CAPACITY.....	127
SPECIAL #4 - RATINGS W/O FWS.....	129
RATING FACTORS - SUMMARY.....	129
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	129
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	129
RATING FACTORS - SHEAR CAPACITY.....	131
SUMMARY - OVERALL REACTIONS.....	133
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	133
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	134
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	135
DL REACTIONS (UNFACTORED) PER GIRDER.....	135
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	135
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	136
DL REACTIONS (UNFACTORED) PER GIRDER.....	136
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	136
OVERALL RATING SUMMARY W/O FWS.....	137
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	137
BRIDGE LOAD RATINGS W/O FWS.....	137
SUMMARY - SPECIFICATION CHECKS.....	139
SPECIFICATION CHECK WARNINGS.....	139
SPECIFICATION CHECK FAILURES.....	140

SEVERE SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 5-8

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*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Severe Stringer MaineDOT Trucks 5-8
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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Madawaska Severe Stringer MaineDOT Trucks 5-8
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Severe Stringer MaineDOT Trucks 5-8
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Severe Stringer MaineDOT Trucks 5-8
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,1,TP,B,-2.250,1.00,0.622,TP,B,2.25,1.00,0.622,W,L,1.006,0.5,0.41
SLS 1,0,1,1,W,R,13.006,1.5,0.125,W,R,10.256,2,0.0625,W,R,4.756,7,0.125
SLS 1,0,1,1,W,L,13.006,1.5,0.125,W,L,6.756,5,0.125,W,L,3.381,1.75,0.1875
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,22,4,22,16,17,4,17,0
SLL 2,N,0,0
SAL 2,11.9,9,21.3,4,21.4,4,21.3,0
SLL 3,N,0,0
SAL 3,13.4,10,23,4,23,0
SLL 4,N,0,0
SAL 4,13.2,10,24.2,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-2.250 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.25 in
WIDTH	1.00 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1.006 in
WIDTH	0.5 in
THICKNESS	0.41 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	10.256 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	4.756 in
WIDTH	7 in
THICKNESS	0.125 in

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	13.006 in
WIDTH	1.5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.756 in
WIDTH	5 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	3.381 in
WIDTH	1.75 in
THICKNESS	0.1875 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.45
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	22 kip
AXLE SPACING	4 ft
AXLE LOAD	22 kip
AXLE SPACING	16 ft
AXLE LOAD	17 kip
AXLE SPACING	4 ft
AXLE LOAD	17 kip
AXLE SPACING	0 ft

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

2
N
0 kip/ft
0

COMMAND: SAL
SPECIAL LL NUMBER
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING

2
11.9 kip
9 ft
21.3 kip
4 ft
21.4 kip
4 ft
21.3 kip
0 ft

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

3
N
0 kip/ft
0

COMMAND: SAL
SPECIAL LL NUMBER
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING

3
13.4 kip
10 ft
23 kip
4 ft
23 kip
0 ft

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

4
N
0 kip/ft
0

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SAL

SPECIAL LL NUMBER	4
AXLE LOAD	13.2 kip
AXLE SPACING	10 ft
AXLE LOAD	24.2 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

Madawaska Severe Stringer MaineDOT Trucks 5-8
INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: OSC
DUCTILITY AND PROPORTIONS      0
WIND EFFECTS                   0
FLEXURAL CAPACITY              1
SHEAR CAPACITY                 1
WEB CHECKS                     0
STIFFENER CHECKS               0
FATIGUE CHECKS                 0
FATIGUE LIFE ESTIMATION        0
DEFLECTION CHECKS              0
SHEAR CONNECTOR CHECKS        0
STAGING / UNCURED CHECKS      0
WELD CAPACITY                  0
ECONOMIC FEASIBILITY           0
NEG MOM SERVICEABILITY         0
SPLRFD INFORMATION             0

COMMAND: ORF
VEHICLE RATING SUMMARY         1
DETAILED RATING FACTORS        1
OVERALL RATING SUMMARY         1
RATINGS W/O FWS                1

```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT          490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO      * (computed, if necessary)
INC. FLG. IN HAUNCH WGT.      Y (default)
AASHTO/PENNDOT SPECS          P (default)
PRINT DIMENSION FILE          N (default)

```

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	F l a n g e Bottom Fy (ksi)	P l a t e Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L H V O O A S L R S E Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1		13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Severe Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-2.250	1.000	0.6220
				Top Plate	Bottom	2.250	1.000	0.6220
				Web	Left	1.006	0.500	0.4100
				Web	Right	13.006	1.500	0.1250
				Web	Right	10.256	2.000	0.0625
				Web	Right	4.756	7.000	0.1250
				Web	Left	13.006	1.500	0.1250
				Web	Left	6.756	5.000	0.1250
				Web	Left	3.381	1.750	0.1875

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	22.000	4.000	22.000	16.000	17.000	4.000
	17.000	0.000						
2	11.900	9.000	21.300	4.000	21.400	4.000	21.300	0.000
3	13.400	10.000	23.000	4.000	23.000	0.000		
4	13.200	10.000	24.200	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Severe Stringer MaineDOT Trucks 5-8

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	0.977	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000L	337.	6.652	8.348	N/A	N/A	51.	40.	N/A	N/A
1	1.000R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	1.954	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	2.931	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	3.908	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	4.885	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	5.863	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	6.840	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	7.817	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	8.794	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771L	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	9.771R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	10.748	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	11.725	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	12.702	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	13.679	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	14.656	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	15.633	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	16.610	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	17.588	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	Radius of Gyration C.Flange r' (in)
1	0.000	8.70	0.000	2.	9.	11.	1.118	1.010
1	0.977	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000L	8.70	0.000	2.	9.	11.	1.118	1.010
1	1.000R	12.48	0.000	9.	9.	17.	1.178	1.588
1	1.954	12.48	0.000	9.	9.	17.	1.178	1.588
1	2.931	12.48	0.000	9.	9.	17.	1.178	1.588
1	3.908	12.48	0.000	9.	9.	17.	1.178	1.588
1	4.885	12.48	0.000	9.	9.	17.	1.178	1.588
1	5.863	12.48	0.000	9.	9.	17.	1.178	1.588
1	6.840	12.48	0.000	9.	9.	17.	1.178	1.588
1	7.817	12.48	0.000	9.	9.	17.	1.178	1.588
1	8.794	12.48	0.000	9.	9.	17.	1.178	1.588
1	9.771L	12.48	0.000	9.	9.	17.	1.178	1.588

Madawaska Severe Stringer MaineDOT Trucks 5-8

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	9.771R	12.48	0.000	9.	9.	17.	1.178	1.588
1	10.748	12.48	0.000	9.	9.	17.	1.178	1.588
1	11.725	12.48	0.000	9.	9.	17.	1.178	1.588
1	12.702	12.48	0.000	9.	9.	17.	1.178	1.588
1	13.679	12.48	0.000	9.	9.	17.	1.178	1.588
1	14.656	12.48	0.000	9.	9.	17.	1.178	1.588
1	15.633	12.48	0.000	9.	9.	17.	1.178	1.588
1	16.610	12.48	0.000	9.	9.	17.	1.178	1.588
1	17.588	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	152.3	4.673	N/A	1.40
1	0.977	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000L	N/A	N/A	152.3	4.673	N/A	1.40
1	1.000R	N/A	N/A	171.5	6.878	N/A	1.76
1	1.954	N/A	N/A	171.5	6.878	N/A	1.76
1	2.931	N/A	N/A	171.5	6.878	N/A	1.76
1	3.908	N/A	N/A	171.5	6.878	N/A	1.76
1	4.885	N/A	N/A	171.5	6.878	N/A	1.76
1	5.863	N/A	N/A	171.5	6.878	N/A	1.76
1	6.840	N/A	N/A	171.5	6.878	N/A	1.76
1	7.817	N/A	N/A	171.5	6.878	N/A	1.76
1	8.794	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771L	N/A	N/A	171.5	6.878	N/A	1.76
1	9.771R	N/A	N/A	171.5	6.878	N/A	1.76
1	10.748	N/A	N/A	171.5	6.878	N/A	1.76
1	11.725	N/A	N/A	171.5	6.878	N/A	1.76
1	12.702	N/A	N/A	171.5	6.878	N/A	1.76
1	13.679	N/A	N/A	171.5	6.878	N/A	1.76
1	14.656	N/A	N/A	171.5	6.878	N/A	1.76
1	15.633	N/A	N/A	171.5	6.878	N/A	1.76
1	16.610	N/A	N/A	171.5	6.878	N/A	1.76
1	17.588	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Severe Stringer MaineDOT Trucks 5-8
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Severe Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Severe Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Severe Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	13.3	31.63	0.0	0.00
1	1.000L	13.6	31.58	0.0	0.00
1	1.000R	13.6	31.58	0.0	0.00
1	1.954	24.8	29.47	0.0	0.00
1	2.931	34.4	27.32	0.0	0.00
1	3.908	42.3	25.16	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	4.885	48.3	23.01	0.0	0.00
1	5.863	52.9	20.98	0.0	0.00
1	6.840	56.6	1.67	0.0	0.00
1	7.817	58.7	17.47	0.0	0.00
1	8.794	59.4	15.72	0.0	0.00
1	9.771L	58.7	-13.96	0.0	0.00
1	9.771R	58.7	-13.96	0.0	0.00
1	10.748	59.4	-15.72	0.0	0.00
1	11.725	58.7	-17.47	0.0	0.00
1	12.702	56.6	-19.23	0.0	0.00
1	13.679	52.9	-20.98	0.0	0.00
1	14.656	48.3	-23.01	0.0	0.00
1	15.633	42.3	-25.16	0.0	0.00
1	16.610	34.4	-27.32	0.0	0.00
1	17.588	24.8	-29.47	0.0	0.00
1	18.565	13.3	-31.63	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	33.78	0.0	0.00	0.0	0.000
1	0.977	31.63	13.3	-0.88	7.0	0.039
1	1.000L	31.58	13.6	-0.90	7.2	0.040
1	1.000R	31.58	13.6	-0.90	7.2	0.040
1	1.954	29.47	24.8	-1.76	13.3	0.078
1	2.931	27.32	34.4	-2.63	18.8	0.114
1	3.908	25.16	42.3	-3.51	23.6	0.146
1	4.885	23.01	48.3	-5.18	32.7	0.175
1	5.863	20.98	52.9	-6.94	40.8	0.198
1	6.840	19.23	56.6	-8.70	47.5	0.220
1	7.817	17.47	58.7	-10.45	52.7	0.237
1	8.794	15.72	59.4	-12.21	56.4	0.242
1	9.771L	13.96	58.7	-13.96	58.7	0.242
1	9.771R	13.96	58.7	-13.96	58.7	0.242
1	10.748	12.21	56.4	-15.72	59.4	0.242
1	11.725	10.45	52.7	-17.47	58.7	0.237
1	12.702	8.70	47.5	-19.23	56.6	0.220
1	13.679	6.94	40.8	-20.98	52.9	0.198
1	14.656	5.18	32.7	-23.01	48.3	0.175
1	15.633	3.51	23.6	-25.16	42.3	0.146
1	16.610	2.63	18.8	-27.32	34.4	0.114

Madawaska Severe Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simultaneous Moment (k-ft)	Maximum Negative Shear (kips)	Simultaneous Moment (k-ft)	Maximum Deflect. (in)
1	17.588	1.76	13.3	-29.47	24.8	0.078
1	18.565	0.88	7.0	-31.63	13.3	0.039
1	19.542	0.00	0.0	-33.78	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	33.78	0.00	0.000000	-0.003865
2	33.78	0.00	0.003865	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	42.33	0.00	0.00	0.00
2	42.33	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011264
2	0.011264	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simultaneous Shear (kips)	Maximum Negative Moment (k-ft)	Simultaneous Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	16.3	38.82	0.0	0.00
1	1.000L	16.7	38.75	0.0	0.00
1	1.000R	16.7	38.75	0.0	0.00
1	1.954	30.1	35.80	0.0	0.00
1	2.931	41.5	32.96	0.0	0.00
1	3.908	51.1	30.40	0.0	0.00
1	4.885	58.5	27.85	0.0	0.00
1	5.863	63.8	25.30	0.0	0.00
1	6.840	68.4	-0.88	0.0	0.00
1	7.817	73.8	13.65	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	8.794	77.0	11.09	0.0	0.00
1	9.771L	78.1	-8.54	0.0	0.00
1	9.771R	78.1	-8.54	0.0	0.00
1	10.748	77.0	-11.09	0.0	0.00
1	11.725	73.8	-13.65	0.0	0.00
1	12.702	68.4	-16.20	0.0	0.00
1	13.679	63.8	-25.30	0.0	0.00
1	14.656	58.5	-27.85	0.0	0.00
1	15.633	51.1	-30.40	0.0	0.00
1	16.610	41.5	-32.96	0.0	0.00
1	17.588	30.1	-35.80	0.0	0.00
1	18.565	16.3	-38.82	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	41.85	0.0	0.00	0.0	0.000
1	0.977	38.82	16.3	-0.85	6.8	0.053
1	1.000L	38.75	16.7	-0.87	7.0	0.054
1	1.000R	38.75	16.7	-0.87	7.0	0.054
1	1.954	35.80	30.1	-1.71	12.9	0.105
1	2.931	32.96	41.5	-2.56	18.3	0.154
1	3.908	30.40	51.1	-3.42	23.0	0.200
1	4.885	27.85	58.5	-5.04	31.8	0.240
1	5.863	25.30	63.8	-6.74	39.7	0.274
1	6.840	22.74	66.9	-8.45	46.1	0.300
1	7.817	20.19	67.9	-10.15	51.2	0.320
1	8.794	17.64	66.7	-12.53	57.9	0.334
1	9.771L	15.08	63.4	-15.08	63.4	0.338
1	9.771R	15.08	63.4	-15.08	63.4	0.338
1	10.748	12.53	57.9	-17.64	66.7	0.334
1	11.725	10.15	51.2	-20.19	67.9	0.320
1	12.702	8.45	46.1	-22.74	66.9	0.300
1	13.679	6.74	39.7	-25.30	63.8	0.274
1	14.656	5.04	31.8	-27.85	58.5	0.240
1	15.633	3.42	23.0	-30.40	51.1	0.200
1	16.610	2.56	18.3	-32.96	41.5	0.154
1	17.588	1.71	12.9	-35.80	30.1	0.105
1	18.565	0.85	6.8	-38.82	16.3	0.053
1	19.542	0.00	0.0	-41.85	0.0	0.000

Madawaska Severe Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	41.85	0.00	0.000000	-0.005228
2	41.85	0.00	0.005228	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	52.45	0.00	0.00	0.00
2	52.45	0.00	0.00	0.00

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.015237
2	0.015237	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	14.1	33.61	0.0	0.00
1	1.000L	14.4	33.56	0.0	0.00
1	1.000R	14.4	33.56	0.0	0.00
1	1.954	26.3	31.24	0.0	0.00
1	2.931	36.4	28.87	0.0	0.00
1	3.908	44.5	26.50	0.0	0.00
1	4.885	50.7	24.13	0.0	0.00
1	5.863	55.3	21.94	0.0	0.00
1	6.840	59.1	1.75	0.0	0.00
1	7.817	61.4	18.27	0.0	0.00
1	8.794	62.1	16.43	0.0	0.00
1	9.771L	61.3	-14.60	0.0	0.00
1	9.771R	61.3	-14.60	0.0	0.00
1	10.748	62.1	-16.43	0.0	0.00
1	11.725	61.4	-18.27	0.0	0.00
1	12.702	59.1	-20.10	0.0	0.00
1	13.679	55.3	-21.94	0.0	0.00
1	14.656	50.7	-24.13	0.0	0.00
1	15.633	44.5	-26.50	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	16.610	36.4	-28.87	0.0	0.00
1	17.588	26.3	-31.24	0.0	0.00
1	18.565	14.1	-33.61	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	35.98	0.0	0.00	0.0	0.000
1	0.977	33.61	14.1	-0.92	7.3	0.041
1	1.000L	33.56	14.4	-0.94	7.5	0.042
1	1.000R	33.56	14.4	-0.94	7.5	0.042
1	1.954	31.24	26.3	-1.84	13.9	0.082
1	2.931	28.87	36.4	-2.75	19.7	0.120
1	3.908	26.50	44.5	-3.67	24.7	0.154
1	4.885	24.13	50.7	-5.42	34.2	0.184
1	5.863	21.94	55.3	-7.26	42.7	0.209
1	6.840	20.10	59.1	-9.09	49.7	0.230
1	7.817	18.27	61.4	-10.93	55.1	0.248
1	8.794	16.43	62.1	-12.76	59.0	0.253
1	9.771L	14.60	61.3	-14.60	61.3	0.253
1	9.771R	14.60	61.3	-14.60	61.3	0.253
1	10.748	12.76	59.0	-16.43	62.1	0.253
1	11.725	10.93	55.1	-18.27	61.4	0.248
1	12.702	9.09	49.7	-20.10	59.1	0.230
1	13.679	7.26	42.7	-21.94	55.3	0.209
1	14.656	5.42	34.2	-24.13	50.7	0.184
1	15.633	3.67	24.7	-26.50	44.5	0.154
1	16.610	2.75	19.7	-28.87	36.4	0.120
1	17.588	1.84	13.9	-31.24	26.3	0.082
1	18.565	0.92	7.3	-33.61	14.1	0.041
1	19.542	0.00	0.0	-35.98	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	35.98	0.00	0.000000	-0.004106
2	35.98	0.00	0.004106	0.000000

Madawaska Severe Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	45.09	0.00	0.00	0.00
2	45.09	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011966
2	0.011966	0.000000

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	9.6	22.96	0.0	0.00
1	1.000L	9.9	22.93	0.0	0.00
1	1.000R	9.9	22.93	0.0	0.00
1	1.954	18.0	21.47	0.0	0.00
1	2.931	25.2	19.98	0.0	0.00
1	3.908	31.1	18.49	0.0	0.00
1	4.885	35.7	16.99	0.0	0.00
1	5.863	39.1	15.50	0.0	0.00
1	6.840	41.2	-5.30	0.0	0.00
1	7.817	42.1	12.52	0.0	0.00
1	8.794	41.7	11.02	0.0	0.00
1	9.771L	40.6	-9.66	0.0	0.00
1	9.771R	40.6	-9.66	0.0	0.00
1	10.748	41.7	-11.02	0.0	0.00
1	11.725	42.1	-12.52	0.0	0.00
1	12.702	41.2	-14.01	0.0	0.00
1	13.679	39.1	-15.50	0.0	0.00
1	14.656	35.7	-16.99	0.0	0.00
1	15.633	31.1	-18.49	0.0	0.00
1	16.610	25.2	-19.98	0.0	0.00
1	17.588	18.0	-21.47	0.0	0.00
1	18.565	9.6	-22.96	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

Madawaska Severe Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	24.45	0.0	0.00	0.0	0.000
1	0.977	22.96	9.6	-0.97	7.7	0.027
1	1.000L	22.93	9.9	-0.99	7.9	0.028
1	1.000R	22.93	9.9	-0.99	7.9	0.028
1	1.954	21.47	18.0	-1.93	14.6	0.053
1	2.931	19.98	25.2	-2.90	20.7	0.078
1	3.908	18.49	31.1	-3.86	26.0	0.101
1	4.885	16.99	35.7	-4.83	30.4	0.121
1	5.863	15.50	39.1	-5.79	34.1	0.138
1	6.840	14.01	41.2	-6.76	36.9	0.150
1	7.817	12.52	42.1	-7.72	38.9	0.159
1	8.794	11.02	41.7	-8.69	40.2	0.163
1	9.771L	9.66	40.6	-9.66	40.6	0.163
1	9.771R	9.66	40.6	-9.66	40.6	0.163
1	10.748	8.69	40.2	-11.02	41.7	0.163
1	11.725	7.72	38.9	-12.52	42.1	0.159
1	12.702	6.76	36.9	-14.01	41.2	0.150
1	13.679	5.79	34.1	-15.50	39.1	0.138
1	14.656	4.83	30.4	-16.99	35.7	0.121
1	15.633	3.86	26.0	-18.49	31.1	0.101
1	16.610	2.90	20.7	-19.98	25.2	0.078
1	17.588	1.93	14.6	-21.47	18.0	0.053
1	18.565	0.97	7.7	-22.96	9.6	0.027
1	19.542	0.00	0.0	-24.45	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	24.45	0.00	0.000000	-0.002695
2	24.45	0.00	0.002695	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	30.65	0.00	0.00	0.00
2	30.65	0.00	0.00	0.00

Madawaska Severe Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.007855
2	0.007855	0.000000

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.2	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-4.0	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.0	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
1	7.817	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	8.794	TOP	SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.1	0.0
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
1	13.679	TOP	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.5	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
		BOT	STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.8	0.0
		TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
1	14.656	BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
		TOP	STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0

Madawaska Severe Stringer MainedOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	BOT	STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)
1	0.000	STR-I	POS.	0.0	50.08	0.00	0.00	0.00	N/A**	N/A**
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**
1	0.977	STR-I	POS.	20.3	46.84	4.81	-6.04	0.00	N/A**	N/A**
		STR-IA	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-II	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-III	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		STR-IV	POS.	1.2	1.18	0.29	-0.36	0.00	N/A**	N/A**
		STR-V	POS.	1.0	0.98	0.24	-0.30	0.00	N/A**	N/A**
		SERV-I	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	0.977	SERV-IIA	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.19	-0.24	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	20.7	46.77	4.92	-6.17	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.30	-0.37	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.25	-0.31	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.20	-0.25	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	20.7	46.77	N/A*	-4.21	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	37.8	43.61	N/A*	-7.69	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	52.7	40.38	N/A*	-10.70	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	2.931	SERV-IIB	POS.	2.2	0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	64.7	37.14	N/A*	-13.16	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	74.1	33.91	N/A*	-15.06	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	81.2	30.87	N/A*	-16.50	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	86.9	28.21	N/A*	-17.66	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.79	-0.79	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	7.817	STR-I	POS.	90.3	25.56	N/A*	-18.35	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	91.5	22.90	N/A*	-18.59	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	90.4	20.25	N/A*	-18.38	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	90.4	20.25	N/A*	-18.38	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.09	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.87	-0.87	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	91.5	-22.90	N/A*	-18.59	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	10.748	STR-II	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.29	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.07	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.86	-0.86	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	90.3	-25.56	N/A*	-18.35	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.83	-0.83	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	86.9	-28.21	N/A*	-17.66	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-0.99	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.79	-0.79	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	81.2	-30.87	N/A*	-16.50	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.09	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.91	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.73	-0.73	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	74.1	-33.91	N/A*	-15.06	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	14.656	STR-IV	POS.	4.8	-0.66	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.81	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.65	-0.65	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	64.7	-37.14	N/A*	-13.16	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.83	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.69	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.56	-0.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	52.7	-40.38	N/A*	-10.70	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.66	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.55	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.44	-0.44	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	37.8	-43.61	N/A*	-7.69	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.39	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.31	-0.31	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	20.3	-46.84	N/A*	-4.12	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. $0.6 \cdot f'_c$ (ksi)	Limits* $0.85 \cdot f'_c$ (ksi)	Code Chk**
1	18.565	SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-50.08	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.565	STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	20.7	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-V	POS.	171.5	1.0	D	
1	1.954	STR-I	POS.	171.5	37.8	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	
		STR-V	POS.	171.5	1.9	D	
1	2.931	STR-I	POS.	171.5	52.7	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	3.908	STR-I	POS.	171.5	64.7	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	4.885	STR-I	POS.	171.5	74.1	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	5.863	STR-I	POS.	171.5	81.2	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	6.840	STR-I	POS.	171.5	86.9	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-V	POS.	171.5	4.9	D	
1	7.817	STR-I	POS.	171.5	90.3	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	
		STR-V	POS.	171.5	5.1	D	
1	8.794	STR-I	POS.	171.5	91.5	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771L	STR-I	POS.	171.5	90.4	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	9.771R	STR-I	POS.	171.5	90.4	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.4	D	
		STR-V	POS.	171.5	5.3	D	
1	10.748	STR-I	POS.	171.5	91.5	D	
		STR-IA	POS.	171.5	5.3	D	
		STR-II	POS.	171.5	5.3	D	
		STR-III	POS.	171.5	5.3	D	
		STR-IV	POS.	171.5	6.3	D	
		STR-V	POS.	171.5	5.3	D	
1	11.725	STR-I	POS.	171.5	90.3	D	
		STR-IA	POS.	171.5	5.1	D	
		STR-II	POS.	171.5	5.1	D	
		STR-III	POS.	171.5	5.1	D	
		STR-IV	POS.	171.5	6.2	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-V	POS.	171.5	5.1	D	
1	12.702	STR-I	POS.	171.5	86.9	D	
		STR-IA	POS.	171.5	4.9	D	
		STR-II	POS.	171.5	4.9	D	
		STR-III	POS.	171.5	4.9	D	
		STR-IV	POS.	171.5	5.8	D	
		STR-V	POS.	171.5	4.9	D	
1	13.679	STR-I	POS.	171.5	81.2	D	
		STR-IA	POS.	171.5	4.5	D	
		STR-II	POS.	171.5	4.5	D	
		STR-III	POS.	171.5	4.5	D	
		STR-IV	POS.	171.5	5.4	D	
		STR-V	POS.	171.5	4.5	D	
1	14.656	STR-I	POS.	171.5	74.1	D	
		STR-IA	POS.	171.5	4.0	D	
		STR-II	POS.	171.5	4.0	D	
		STR-III	POS.	171.5	4.0	D	
		STR-IV	POS.	171.5	4.8	D	
		STR-V	POS.	171.5	4.0	D	
1	15.633	STR-I	POS.	171.5	64.7	D	
		STR-IA	POS.	171.5	3.4	D	
		STR-II	POS.	171.5	3.4	D	
		STR-III	POS.	171.5	3.4	D	
		STR-IV	POS.	171.5	4.1	D	
		STR-V	POS.	171.5	3.4	D	
1	16.610	STR-I	POS.	171.5	52.7	D	
		STR-IA	POS.	171.5	2.7	D	
		STR-II	POS.	171.5	2.7	D	
		STR-III	POS.	171.5	2.7	D	
		STR-IV	POS.	171.5	3.3	D	
		STR-V	POS.	171.5	2.7	D	
1	17.588	STR-I	POS.	171.5	37.8	D	
		STR-IA	POS.	171.5	1.9	D	
		STR-II	POS.	171.5	1.9	D	
		STR-III	POS.	171.5	1.9	D	
		STR-IV	POS.	171.5	2.3	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-V	POS.	171.5	1.9	D	
1	18.565	STR-I	POS.	171.5	20.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	100.8	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.0	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.0	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-6.0	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	0.977	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	4.8	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
		TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-6.2	D	
			STR-IA	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-II	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-III	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-IV	POS.	1.000	1.000	100.8	-30.0	-0.4	D	
1	1.000L	TOP	STR-V	POS.	1.000	1.000	100.8	-30.0	-0.3	D	
			STR-I	POS.	1.000	N/A	126.5	30.0	4.9	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
		BOT	STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-I	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IA	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-II	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-III	POS.	1.000	N/A	126.5	30.0	0.2	G	
			STR-IV	POS.	1.000	N/A	126.5	30.0	0.3	G	
			STR-V	POS.	1.000	N/A	126.5	30.0	0.2	G	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

* Legend of General Notes:

- Rh = Hybrid factor
 Rb = Load shedding factor (only applies to compression flange)
 Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 $F+ = f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
 due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
 A6.10.8.1.2-1) and/or user input lateral effects
 w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IA	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-II	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-III	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A
			STR-IV	P	0.8	1.000	1.000	7.7	2.33	8.07 1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	6.840	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	12.702	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	18.565	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.201	19.06	1.201	147.6	1.162
			STR-IA	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-II	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-III	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-IV	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162
			STR-V	P	1.4	1.000	1.000	6.9	3.64	13.68	1.300	19.06	1.300	147.6	1.162

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
				Flexural Resistance						Flexural Resistance		Flexural+Lateral		Chk		
Span			Limit		Local	*	Governing	*	Local	*	Governing	*	Stress	Moment	***	
No.	Dist.	T/B	State	Flx	Fr		Mr(e)**	Fr	Mr		Mr		F+**	M+**		
	(ft)				(ksi)		(kip-ft)	(ksi)	(kip-ft)		(kip-ft)		(ksi)	(kip-ft)		
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	0.977	TOP	STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H			
1	4.885	TOP	STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-18.6	N/A	A
			STR-IA	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-II	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-III	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
			STR-IV	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.3	N/A	
			STR-V	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural	Effects	Chk	
					Local	Governing	Local	Governing	Stress	Moment	***					
					Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)	***	
1	10.748	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	11.725	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	12.702	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	13.679	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	14.656	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	15.633	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A	
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	
1	16.610	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.	
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A	

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk		
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***		
1	16.610	TOP	STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	17.588	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	18.565	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
1	19.542	TOP	STR-I	P	-29.4	B	145.	-29.4	B	171.	E	171.	E	N/A	91.		
			STR-IA	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-II	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-III	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.3	N/A		
			STR-V	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	-1.1	N/A		

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
flexure, so the top flange capacity is based on compression. However, the total
factored stress (F+) in the top flange is tensile. The user should verify the
acceptability of the section by comparing the top flange stress (F+) to the flexural
resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.0	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	80.6	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	80.6	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIA	POS.	1.000	101.2	24.0	0.2	C	
			SERV-IIB	POS.	1.000	101.2	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	3.908	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	6.840	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	8.794	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	9.771R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	12.702	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	14.656	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.4	C	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	118.1	-24.0	-0.4	C	
			SERV-II	POS.	1.000	118.1	24.0	0.4	C	
		BOT	SERV-IIA	POS.	1.000	118.1	24.0	0.4	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.4	C	
1	17.588	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000L	TOP	SERV-II	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIA	POS.	7.73	1.000	100.8	-30.0	-0.2	
		TOP	SERV-IIB	POS.	7.73	1.000	100.8	-30.0	-0.2	
1	1.000R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	3.908	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	6.840	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	12.702	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	14.656	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.4	
1	17.588	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.3	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	54.06	50.08	U	
		STR-IA	54.06	1.09	U	
		STR-II	54.06	1.09	U	
		STR-III	54.06	1.09	U	
		STR-IV	54.06	1.31	U	
		STR-V	54.06	1.09	U	
1	0.977	STR-I	54.06	46.84	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	
		STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000L	STR-I	54.06	46.77	U	
		STR-IA	54.06	0.98	U	
		STR-II	54.06	0.98	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	1.000L	STR-III	54.06	0.98	U	
		STR-IV	54.06	1.18	U	
		STR-V	54.06	0.98	U	
1	1.000R	STR-I	98.14	46.77	U	
		STR-IA	98.14	0.98	U	
		STR-II	98.14	0.98	U	
		STR-III	98.14	0.98	U	
		STR-IV	98.14	1.18	U	
		STR-V	98.14	0.98	U	
1	1.954	STR-I	98.14	43.61	U	
		STR-IA	98.14	0.87	U	
		STR-II	98.14	0.87	U	
		STR-III	98.14	0.87	U	
		STR-IV	98.14	1.05	U	
		STR-V	98.14	0.87	U	
1	2.931	STR-I	98.14	40.38	U	
		STR-IA	98.14	0.77	U	
		STR-II	98.14	0.77	U	
		STR-III	98.14	0.77	U	
		STR-IV	98.14	0.92	U	
		STR-V	98.14	0.77	U	
1	3.908	STR-I	98.14	37.14	U	
		STR-IA	98.14	0.66	U	
		STR-II	98.14	0.66	U	
		STR-III	98.14	0.66	U	
		STR-IV	98.14	0.79	U	
		STR-V	98.14	0.66	U	
1	4.885	STR-I	98.14	33.91	U	
		STR-IA	98.14	0.55	U	
		STR-II	98.14	0.55	U	
		STR-III	98.14	0.55	U	
		STR-IV	98.14	0.66	U	
		STR-V	98.14	0.55	U	
1	5.863	STR-I	98.14	30.87	U	
		STR-IA	98.14	0.44	U	
		STR-II	98.14	0.44	U	
		STR-III	98.14	0.44	U	
		STR-IV	98.14	0.52	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	5.863	STR-V	98.14	0.44	U	
1	6.840	STR-I	98.14	28.21	U	
		STR-IA	98.14	0.33	U	
		STR-II	98.14	0.33	U	
		STR-III	98.14	0.33	U	
		STR-IV	98.14	0.39	U	
		STR-V	98.14	0.33	U	
1	7.817	STR-I	98.14	25.56	U	
		STR-IA	98.14	0.22	U	
		STR-II	98.14	0.22	U	
		STR-III	98.14	0.22	U	
		STR-IV	98.14	0.26	U	
		STR-V	98.14	0.22	U	
1	8.794	STR-I	98.14	22.90	U	
		STR-IA	98.14	0.11	U	
		STR-II	98.14	0.11	U	
		STR-III	98.14	0.11	U	
		STR-IV	98.14	0.13	U	
		STR-V	98.14	0.11	U	
1	9.771L	STR-I	98.14	20.25	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	9.771R	STR-I	98.14	20.25	U	
		STR-IA	98.14	0.00	U	
		STR-II	98.14	0.00	U	
		STR-III	98.14	0.00	U	
		STR-IV	98.14	0.00	U	
		STR-V	98.14	0.00	U	
1	10.748	STR-I	98.14	-22.90	U	
		STR-IA	98.14	-0.11	U	
		STR-II	98.14	-0.11	U	
		STR-III	98.14	-0.11	U	
		STR-IV	98.14	-0.13	U	
		STR-V	98.14	-0.11	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	11.725	STR-I	98.14	-25.56	U	
		STR-IA	98.14	-0.22	U	
		STR-II	98.14	-0.22	U	
		STR-III	98.14	-0.22	U	
		STR-IV	98.14	-0.26	U	
		STR-V	98.14	-0.22	U	
1	12.702	STR-I	98.14	-28.21	U	
		STR-IA	98.14	-0.33	U	
		STR-II	98.14	-0.33	U	
		STR-III	98.14	-0.33	U	
		STR-IV	98.14	-0.39	U	
		STR-V	98.14	-0.33	U	
1	13.679	STR-I	98.14	-30.87	U	
		STR-IA	98.14	-0.44	U	
		STR-II	98.14	-0.44	U	
		STR-III	98.14	-0.44	U	
		STR-IV	98.14	-0.52	U	
		STR-V	98.14	-0.44	U	
1	14.656	STR-I	98.14	-33.91	U	
		STR-IA	98.14	-0.55	U	
		STR-II	98.14	-0.55	U	
		STR-III	98.14	-0.55	U	
		STR-IV	98.14	-0.66	U	
		STR-V	98.14	-0.55	U	
1	15.633	STR-I	98.14	-37.14	U	
		STR-IA	98.14	-0.66	U	
		STR-II	98.14	-0.66	U	
		STR-III	98.14	-0.66	U	
		STR-IV	98.14	-0.79	U	
		STR-V	98.14	-0.66	U	
1	16.610	STR-I	98.14	-40.38	U	
		STR-IA	98.14	-0.77	U	
		STR-II	98.14	-0.77	U	
		STR-III	98.14	-0.77	U	
		STR-IV	98.14	-0.92	U	
		STR-V	98.14	-0.77	U	
1	17.588	STR-I	98.14	-43.61	U	
		STR-IA	98.14	-0.87	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8SPECIAL #1 - SPECIFICATION CHECKING (cont.)
-----SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	17.588	STR-II	98.14	-0.87	U	
		STR-III	98.14	-0.87	U	
		STR-IV	98.14	-1.05	U	
		STR-V	98.14	-0.87	U	
1	18.565	STR-I	98.14	-46.84	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-50.08	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.756	33.2	1	0.000	STR-I
	Shear		1.081	47.6	1	0.000	STR-I
	Controlling		0.756	33.2	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	86.	1.928*	
1	10.748	STR-I	POS.	171.	5.	86.	1.928	
1	11.725	STR-I	POS.	171.	5.	86.	1.928*	
1	12.702	STR-I	POS.	171.	5.	86.	1.928*	
1	13.679	STR-I	POS.	171.	5.	86.	1.928*	
1	14.656	STR-I	POS.	171.	5.	86.	1.928*	
1	15.633	STR-I	POS.	171.	5.	86.	1.928*	
1	16.610	STR-I	POS.	171.	5.	86.	1.928*	
1	17.588	STR-I	POS.	171.	5.	86.	1.928*	
1	18.565	STR-I	POS.	171.	5.	86.	1.928*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
		BOT	STR-I	POS.	30.0	0.2	4.6	6.512	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
		BOT	STR-I	POS.	30.0	0.2	4.7	6.372	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-17.5	0.756*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	48.98	1.081	
1	0.977	STR-I	POS.	54.06	0.98	45.86	1.157	
1	1.000L	STR-I	POS.	54.06	0.98	45.79	1.159	
1	1.000R	STR-I	POS.	98.14	0.98	45.79	2.122	
1	1.954	STR-I	POS.	98.14	0.87	42.73	2.276	
1	2.931	STR-I	POS.	98.14	0.77	39.61	2.458	
1	3.908	STR-I	POS.	98.14	0.66	36.49	2.672	
1	4.885	STR-I	POS.	98.14	0.55	33.36	2.925	
1	5.863	STR-I	POS.	98.14	0.44	30.43	3.211	
1	6.840	STR-I	POS.	98.14	0.33	27.88	3.508	
1	7.817	STR-I	POS.	98.14	0.22	25.34	3.865	
1	8.794	STR-I	POS.	98.14	0.11	22.79	4.301	
1	9.771L	STR-I	POS.	98.14	0.00	20.25	4.847	
1	9.771R	STR-I	POS.	98.14	0.00	20.25	4.847	
1	10.748	STR-I	NEG.	98.14	-0.11	-22.79	4.301	
1	11.725	STR-I	NEG.	98.14	-0.22	-25.34	3.865	
1	12.702	STR-I	NEG.	98.14	-0.33	-27.88	3.508	
1	13.679	STR-I	NEG.	98.14	-0.44	-30.43	3.211	
1	14.656	STR-I	NEG.	98.14	-0.55	-33.36	2.925	
1	15.633	STR-I	NEG.	98.14	-0.66	-36.49	2.672	
1	16.610	STR-I	NEG.	98.14	-0.77	-39.61	2.458	
1	17.588	STR-I	NEG.	98.14	-0.87	-42.73	2.276	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-45.86	2.118	
1	19.542	STR-I	NEG.	98.14	-1.09	-48.98	1.981	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.1	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.4	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.0	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	13.9	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.0	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.6	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.6	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total DC1 Inst* Deck Pour* (ksi) (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	15.0	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	-13.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	13.9	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	-13.0	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	13.0	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	11.9	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	10.4	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	-8.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	8.4	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	-6.1	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	6.1	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	3.3	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	61.78	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.7	57.28	5.85	-7.34	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.2	57.17	5.98	-7.50	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.2	57.17	N/A*	-5.12	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.5	52.78	N/A*	-9.26	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.0	48.55	N/A*	-12.80	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	77.5	44.74	N/A*	-15.75	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	88.8	40.93	N/A*	-18.06	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	97.0	37.12	N/A*	-19.71	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	104.0	33.31	N/A*	-21.15	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	29.49	N/A*	-22.78	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	116.9	25.68	N/A*	-23.76	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	118.5	21.87	N/A*	-24.09	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	118.5	21.87	N/A*	-24.09	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	116.9	-25.68	N/A*	-23.76	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-29.49	N/A*	-22.78	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	104.0	-33.31	N/A*	-21.15	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	97.0	-37.12	N/A*	-19.71	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	88.8	-40.93	N/A*	-18.06	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	77.5	-44.74	N/A*	-15.75	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.0	-48.55	N/A*	-12.80	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.5	-52.78	N/A*	-9.26	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.7	-57.28	N/A*	-5.01	0.00	N/A**	N/A**	

Madawaska Severe Stringer MaineDOT Trucks 5-8SPECIAL #2 - ANALYSIS (cont.)
-----FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R		0.6*f'c	0.85*f'c	Chk**
						(ksi)	(ksi)	(ksi)		(ksi)	(ksi)	
1	19.542	STR-I	POS.	0.0	-61.78	N/A*	0.00	0.00		N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	25.2	D	
1	1.954	STR-I	POS.	171.5	45.5	D	
1	2.931	STR-I	POS.	171.5	63.0	D	
1	3.908	STR-I	POS.	171.5	77.5	D	
1	4.885	STR-I	POS.	171.5	88.8	D	
1	5.863	STR-I	POS.	171.5	97.0	D	
1	6.840	STR-I	POS.	171.5	104.0	D	
1	7.817	STR-I	POS.	171.5	112.1	D	
1	8.794	STR-I	POS.	171.5	116.9	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	171.5	118.5	D	
1	9.771R	STR-I	POS.	171.5	118.5	D	
1	10.748	STR-I	POS.	171.5	116.9	D	
1	11.725	STR-I	POS.	171.5	112.1	D	
1	12.702	STR-I	POS.	171.5	104.0	D	
1	13.679	STR-I	POS.	171.5	97.0	D	
1	14.656	STR-I	POS.	171.5	88.8	D	
1	15.633	STR-I	POS.	171.5	77.5	D	
1	16.610	STR-I	POS.	171.5	63.0	D	
1	17.588	STR-I	POS.	171.5	45.5	D	
1	18.565	STR-I	POS.	171.5	24.7	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for $M+$ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-7.3	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	5.9	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-7.5	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	6.0	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.301	19.06	1.301	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	0.977	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	1.000L	TOP	STR-I	P	-14.3 C	48.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	1.000R	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	1.954	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	2.931	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	3.908	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	4.885	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	5.863	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	6.840	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A
1	7.817	TOP	STR-I	P	-24.5 B	70.	-14.3 C	N/A	H	N/A	-24.1	N/A	A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	Fr (ksi)	* B	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)				* H
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.1	N/A	A
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-24.1	N/A	A
1	9.771R	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	10.748	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	11.725	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	12.702	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	13.679	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	14.656	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	15.633	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	16.610	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	17.588	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	18.565	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	
1	19.542	TOP	STR-I	P	-30.0	B	148.	-30.0	B	171.	E	171.	E	N/A	119.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1
 If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
 flexure, so the top flange capacity is based on compression. However, the total
 factored stress (F+) in the top flange is tensile. The user should verify the
 acceptability of the section by comparing the top flange stress (F+) to the flexural
 resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
 transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	54.06	61.78	U	A
1	0.977	STR-I	54.06	57.28	U	A
1	1.000L	STR-I	54.06	57.17	U	A
1	1.000R	STR-I	98.14	57.17	U	
1	1.954	STR-I	98.14	52.78	U	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/Unstiffened	Code Check*
1	2.931	STR-I	98.14	48.55	U	
1	3.908	STR-I	98.14	44.74	U	
1	4.885	STR-I	98.14	40.93	U	
1	5.863	STR-I	98.14	37.12	U	
1	6.840	STR-I	98.14	33.31	U	
1	7.817	STR-I	98.14	29.49	U	
1	8.794	STR-I	98.14	25.68	U	
1	9.771L	STR-I	98.14	21.87	U	
1	9.771R	STR-I	98.14	21.87	U	
1	10.748	STR-I	98.14	-25.68	U	
1	11.725	STR-I	98.14	-29.49	U	
1	12.702	STR-I	98.14	-33.31	U	
1	13.679	STR-I	98.14	-37.12	U	
1	14.656	STR-I	98.14	-40.93	U	
1	15.633	STR-I	98.14	-44.74	U	
1	16.610	STR-I	98.14	-48.55	U	
1	17.588	STR-I	98.14	-52.78	U	
1	18.565	STR-I	98.14	-57.28	U	
1	19.542	STR-I	98.14	-61.78	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.575	21.8	1	0.000	STR-I
	Shear		0.873	33.1	1	0.000	STR-I
	Controlling		0.575	21.8	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	113.	1.468	
1	10.748	STR-I	POS.	171.	5.	113.	1.468*	
1	11.725	STR-I	POS.	171.	5.	113.	1.468*	
1	12.702	STR-I	POS.	171.	5.	113.	1.468*	
1	13.679	STR-I	POS.	171.	5.	113.	1.468*	
1	14.656	STR-I	POS.	171.	5.	113.	1.468*	
1	15.633	STR-I	POS.	171.	5.	113.	1.468*	
1	16.610	STR-I	POS.	171.	5.	113.	1.468*	
1	17.588	STR-I	POS.	171.	5.	113.	1.468*	
1	18.565	STR-I	POS.	171.	5.	113.	1.468*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
		BOT	STR-I	POS.	30.0	0.2	5.6	5.305	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
		BOT	STR-I	POS.	30.0	0.2	5.7	5.192	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-23.0	0.575*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	60.69	0.873	C
1	0.977	STR-I	POS.	54.06	0.98	56.30	0.943	C
1	1.000L	STR-I	POS.	54.06	0.98	56.19	0.945	C
1	1.000R	STR-I	POS.	98.14	0.98	56.19	1.729	
1	1.954	STR-I	POS.	98.14	0.87	51.90	1.874	
1	2.931	STR-I	POS.	98.14	0.77	47.79	2.038	
1	3.908	STR-I	POS.	98.14	0.66	44.09	2.211	
1	4.885	STR-I	POS.	98.14	0.55	40.38	2.417	
1	5.863	STR-I	POS.	98.14	0.44	36.68	2.664	
1	6.840	STR-I	POS.	98.14	0.33	32.98	2.966	
1	7.817	STR-I	POS.	98.14	0.22	29.27	3.345	
1	8.794	STR-I	POS.	98.14	0.11	25.57	3.833	
1	9.771L	STR-I	POS.	98.14	0.00	21.87	4.487	
1	9.771R	STR-I	POS.	98.14	0.00	21.87	4.487	
1	10.748	STR-I	NEG.	98.14	-0.11	-25.57	3.833	
1	11.725	STR-I	NEG.	98.14	-0.22	-29.27	3.345	
1	12.702	STR-I	NEG.	98.14	-0.33	-32.98	2.966	
1	13.679	STR-I	NEG.	98.14	-0.44	-36.68	2.664	
1	14.656	STR-I	NEG.	98.14	-0.55	-40.38	2.417	
1	15.633	STR-I	NEG.	98.14	-0.66	-44.09	2.211	
1	16.610	STR-I	NEG.	98.14	-0.77	-47.79	2.038	
1	17.588	STR-I	NEG.	98.14	-0.87	-51.90	1.874	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-56.30	1.726	
1	19.542	STR-I	NEG.	98.14	-1.09	-60.69	1.599	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.4	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	11.2	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.0	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.0	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	11.2	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.4	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f' _c (ksi)	0.85*f' _c (ksi)
1	0.000	STR-I	POS.	0.0	53.27	0.00	0.00	0.00	N/A**	N/A**
1	0.977	STR-I	POS.	21.5	49.72	5.10	-6.40	0.00	N/A**	N/A**
1	1.000L	STR-I	POS.	22.0	49.64	5.21	-6.54	0.00	N/A**	N/A**
1	1.000R	STR-I	POS.	22.0	49.64	N/A*	-4.46	0.00	N/A**	N/A**
1	1.954	STR-I	POS.	40.0	46.18	N/A*	-8.13	0.00	N/A**	N/A**
1	2.931	STR-I	POS.	55.5	42.63	N/A*	-11.28	0.00	N/A**	N/A**
1	3.908	STR-I	POS.	68.0	39.09	N/A*	-13.82	0.00	N/A**	N/A**
1	4.885	STR-I	POS.	77.5	35.54	N/A*	-15.76	0.00	N/A**	N/A**
1	5.863	STR-I	POS.	84.7	32.25	N/A*	-17.21	0.00	N/A**	N/A**
1	6.840	STR-I	POS.	90.6	29.48	N/A*	-18.41	0.00	N/A**	N/A**
1	7.817	STR-I	POS.	94.2	26.71	N/A*	-19.14	0.00	N/A**	N/A**
1	8.794	STR-I	POS.	95.4	23.94	N/A*	-19.39	0.00	N/A**	N/A**
1	9.771L	STR-I	POS.	94.3	21.17	N/A*	-19.16	0.00	N/A**	N/A**
1	9.771R	STR-I	POS.	94.3	21.17	N/A*	-19.16	0.00	N/A**	N/A**
1	10.748	STR-I	POS.	95.4	-23.94	N/A*	-19.39	0.00	N/A**	N/A**
1	11.725	STR-I	POS.	94.2	-26.71	N/A*	-19.14	0.00	N/A**	N/A**
1	12.702	STR-I	POS.	90.6	-29.48	N/A*	-18.41	0.00	N/A**	N/A**
1	13.679	STR-I	POS.	84.7	-32.25	N/A*	-17.21	0.00	N/A**	N/A**
1	14.656	STR-I	POS.	77.5	-35.54	N/A*	-15.76	0.00	N/A**	N/A**
1	15.633	STR-I	POS.	68.0	-39.09	N/A*	-13.82	0.00	N/A**	N/A**
1	16.610	STR-I	POS.	55.5	-42.63	N/A*	-11.28	0.00	N/A**	N/A**
1	17.588	STR-I	POS.	40.0	-46.18	N/A*	-8.13	0.00	N/A**	N/A**
1	18.565	STR-I	POS.	21.5	-49.72	N/A*	-4.37	0.00	N/A**	N/A**

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. (ksi)	Limits* (ksi)	Code Chk**
1	19.542	STR-I	POS.	0.0	-53.27	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	22.0	D	
1	1.954	STR-I	POS.	171.5	40.0	D	
1	2.931	STR-I	POS.	171.5	55.5	D	
1	3.908	STR-I	POS.	171.5	68.0	D	
1	4.885	STR-I	POS.	171.5	77.5	D	
1	5.863	STR-I	POS.	171.5	84.7	D	
1	6.840	STR-I	POS.	171.5	90.6	D	
1	7.817	STR-I	POS.	171.5	94.2	D	
1	8.794	STR-I	POS.	171.5	95.4	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	171.5	94.3	D	
1	9.771R	STR-I	POS.	171.5	94.3	D	
1	10.748	STR-I	POS.	171.5	95.4	D	
1	11.725	STR-I	POS.	171.5	94.2	D	
1	12.702	STR-I	POS.	171.5	90.6	D	
1	13.679	STR-I	POS.	171.5	84.7	D	
1	14.656	STR-I	POS.	171.5	77.5	D	
1	15.633	STR-I	POS.	171.5	68.0	D	
1	16.610	STR-I	POS.	171.5	55.5	D	
1	17.588	STR-I	POS.	171.5	40.0	D	
1	18.565	STR-I	POS.	171.5	21.5	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-6.4	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	5.1	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-6.5	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	5.2	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.198	19.06	1.198	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Governing					Appendix A Flexural Resistance Governing				Factored Stress F+*** (ksi)	Effects Flexural+Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* C	Mr(e)** (kip-ft)	* Fr (ksi)	* C	Local Mr (kip-ft)	* H	Mr (kip-ft)	* H			
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H				
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-19.4	N/A	A
1	9.771R	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	10.748	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	11.725	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	12.702	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	13.679	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	14.656	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	15.633	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	16.610	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	17.588	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	18.565	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	
1	19.542	TOP	STR-I	P	-29.4	B	144.	-29.4	B	171.	E	171.	E	N/A	95.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
- F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
- M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
- w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
- B. Based on the total stress in the bottom flange, this section is analyzed for positive
flexure, so the top flange capacity is based on compression. However, the total
factored stress (F+) in the top flange is tensile. The user should verify the
acceptability of the section by comparing the top flange stress (F+) to the flexural
resistance (Fr) of the top flange in negative flexure.
- C. The unbraced range containing this analysis point varies in depth and has a flange
transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	54.06	53.27	U	
1	0.977	STR-I	54.06	49.72	U	
1	1.000L	STR-I	54.06	49.64	U	
1	1.000R	STR-I	98.14	49.64	U	
1	1.954	STR-I	98.14	46.18	U	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	2.931	STR-I	98.14	42.63	U	
1	3.908	STR-I	98.14	39.09	U	
1	4.885	STR-I	98.14	35.54	U	
1	5.863	STR-I	98.14	32.25	U	
1	6.840	STR-I	98.14	29.48	U	
1	7.817	STR-I	98.14	26.71	U	
1	8.794	STR-I	98.14	23.94	U	
1	9.771L	STR-I	98.14	21.17	U	
1	9.771R	STR-I	98.14	21.17	U	
1	10.748	STR-I	98.14	-23.94	U	
1	11.725	STR-I	98.14	-26.71	U	
1	12.702	STR-I	98.14	-29.48	U	
1	13.679	STR-I	98.14	-32.25	U	
1	14.656	STR-I	98.14	-35.54	U	
1	15.633	STR-I	98.14	-39.09	U	
1	16.610	STR-I	98.14	-42.63	U	
1	17.588	STR-I	98.14	-46.18	U	
1	18.565	STR-I	98.14	-49.72	U	
1	19.542	STR-I	98.14	-53.27	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.723	21.5	1	0.000	STR-I
	Shear		1.015	30.1	1	0.000	STR-I
	Controlling		0.723	21.5	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	171.	5.	90.	1.844*	
1	10.748	STR-I	POS.	171.	5.	90.	1.844	
1	11.725	STR-I	POS.	171.	5.	90.	1.844*	
1	12.702	STR-I	POS.	171.	5.	90.	1.844*	
1	13.679	STR-I	POS.	171.	5.	90.	1.844*	
1	14.656	STR-I	POS.	171.	5.	90.	1.844*	
1	15.633	STR-I	POS.	171.	5.	90.	1.844*	
1	16.610	STR-I	POS.	171.	5.	90.	1.844*	
1	17.588	STR-I	POS.	171.	5.	90.	1.844*	
1	18.565	STR-I	POS.	171.	5.	90.	1.844*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
		BOT	STR-I	POS.	30.0	0.2	4.9	6.127	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
		BOT	STR-I	POS.	30.0	0.2	5.0	5.996	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	1.954	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	2.931	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	3.908	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	4.885	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	5.863	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	6.840	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	7.817	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	8.794	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D
1	9.771L	TOP	STR-I	POS.	-14.3	-1.1	-18.3	0.723*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	52.18	1.015	
1	0.977	STR-I	POS.	54.06	0.98	48.74	1.089	
1	1.000L	STR-I	POS.	54.06	0.98	48.66	1.091	
1	1.000R	STR-I	POS.	98.14	0.98	48.66	1.997	
1	1.954	STR-I	POS.	98.14	0.87	45.30	2.147	
1	2.931	STR-I	POS.	98.14	0.77	41.87	2.326	
1	3.908	STR-I	POS.	98.14	0.66	38.43	2.537	
1	4.885	STR-I	POS.	98.14	0.55	34.99	2.789	
1	5.863	STR-I	POS.	98.14	0.44	31.81	3.071	
1	6.840	STR-I	POS.	98.14	0.33	29.15	3.355	
1	7.817	STR-I	POS.	98.14	0.22	26.49	3.697	
1	8.794	STR-I	POS.	98.14	0.11	23.83	4.114	
1	9.771L	STR-I	POS.	98.14	0.00	21.17	4.636	
1	9.771R	STR-I	POS.	98.14	0.00	21.17	4.636	
1	10.748	STR-I	NEG.	98.14	-0.11	-23.83	4.114	
1	11.725	STR-I	NEG.	98.14	-0.22	-26.49	3.697	
1	12.702	STR-I	NEG.	98.14	-0.33	-29.15	3.355	
1	13.679	STR-I	NEG.	98.14	-0.44	-31.81	3.071	
1	14.656	STR-I	NEG.	98.14	-0.55	-34.99	2.789	
1	15.633	STR-I	NEG.	98.14	-0.66	-38.43	2.537	
1	16.610	STR-I	NEG.	98.14	-0.77	-41.87	2.326	
1	17.588	STR-I	NEG.	98.14	-0.87	-45.30	2.147	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.565	STR-I	NEG.	98.14	-0.98	-48.74	1.993	
1	19.542	STR-I	NEG.	98.14	-1.09	-52.18	1.860	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.3	0.0
1	1.000L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.3	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	2.931	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.1	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.1	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.3	0.0
1	5.863	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.9	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.4	0.0
1	7.817	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.5	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.5	0.0

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.4	0.0
1	13.679	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.9	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.3	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	16.610	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.1	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.1	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8

SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	36.55	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	15.0	34.28	3.56	-4.47	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	15.3	34.23	3.64	-4.56	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	15.3	34.23	N/A*	-3.12	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	28.1	32.01	N/A*	-5.71	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	39.2	29.73	N/A*	-7.98	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	48.5	27.46	N/A*	-9.85	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	55.8	25.19	N/A*	-11.34	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	61.1	22.91	N/A*	-12.43	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	64.6	20.64	N/A*	-13.13	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	66.1	18.37	N/A*	-13.44	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	65.7	16.09	N/A*	-13.36	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	64.2	14.00	N/A*	-13.04	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	64.2	14.00	N/A*	-13.04	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	65.7	-16.09	N/A*	-13.36	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	66.1	-18.37	N/A*	-13.44	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	64.6	-20.64	N/A*	-13.13	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	61.1	-22.91	N/A*	-12.43	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	55.8	-25.19	N/A*	-11.34	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	48.5	-27.46	N/A*	-9.85	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	39.2	-29.73	N/A*	-7.98	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	28.1	-32.01	N/A*	-5.71	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	15.0	-34.28	N/A*	-3.05	0.00	N/A**	N/A**	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. (ksi)	Limits* (ksi)	Code Chk**
1	19.542	STR-I	POS.	0.0	-36.55	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	171.5	15.3	D	
1	1.954	STR-I	POS.	171.5	28.1	D	
1	2.931	STR-I	POS.	171.5	39.2	D	
1	3.908	STR-I	POS.	171.5	48.5	D	
1	4.885	STR-I	POS.	171.5	55.8	D	
1	5.863	STR-I	POS.	171.5	61.1	D	
1	6.840	STR-I	POS.	171.5	64.6	D	
1	7.817	STR-I	POS.	171.5	66.1	D	
1	8.794	STR-I	POS.	171.5	65.7	D	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	171.5	64.2	D	
1	9.771R	STR-I	POS.	171.5	64.2	D	
1	10.748	STR-I	POS.	171.5	65.7	D	
1	11.725	STR-I	POS.	171.5	66.1	D	
1	12.702	STR-I	POS.	171.5	64.6	D	
1	13.679	STR-I	POS.	171.5	61.1	D	
1	14.656	STR-I	POS.	171.5	55.8	D	
1	15.633	STR-I	POS.	171.5	48.5	D	
1	16.610	STR-I	POS.	171.5	39.2	D	
1	17.588	STR-I	POS.	171.5	28.1	D	
1	18.565	STR-I	POS.	171.5	15.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1
w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	0.000	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-4.5	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	3.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	100.8	-30.0	-4.6	D	
		BOT	STR-I	POS.	1.000	N/A	126.5	30.0	3.6	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	0.8	1.000	1.000	7.7	2.33	8.07	1.000	N/A	N/A	N/A	N/A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.64	13.68	1.138	19.06	1.138	147.6	1.162

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Fr (ksi)			
1	0.000	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	-13.4	N/A
1	0.977	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	-13.4	N/A
1	1.000L	TOP	STR-I	P	-14.3	C	48.	-14.3	C	N/A	H	-13.4	N/A
1	1.000R	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	1.954	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	2.931	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	3.908	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	4.885	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	5.863	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	6.840	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A
1	7.817	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	-13.4	N/A

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* C	Local Mr (kip-ft)	* H	Governing Mr (kip-ft)	* H				
1	8.794	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-13.4	N/A	
1	9.771L	TOP	STR-I	P	-24.5	B	70.	-14.3	C	N/A	H	N/A	H	-13.4	N/A	
1	9.771R	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	10.748	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	11.725	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	12.702	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	13.679	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	14.656	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	15.633	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	16.610	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	17.588	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	18.565	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	
1	19.542	TOP	STR-I	P	-27.9	B	137.	-27.9	B	164.	E	164.	E	N/A	66.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	54.06	36.55	U	
1	0.977	STR-I	54.06	34.28	U	
1	1.000L	STR-I	54.06	34.23	U	
1	1.000R	STR-I	98.14	34.23	U	
1	1.954	STR-I	98.14	32.01	U	
1	2.931	STR-I	98.14	29.73	U	
1	3.908	STR-I	98.14	27.46	U	
1	4.885	STR-I	98.14	25.19	U	
1	5.863	STR-I	98.14	22.91	U	
1	6.840	STR-I	98.14	20.64	U	

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	7.817	STR-I	98.14	18.37	U	
1	8.794	STR-I	98.14	16.09	U	
1	9.771L	STR-I	98.14	14.00	U	
1	9.771R	STR-I	98.14	14.00	U	
1	10.748	STR-I	98.14	-16.09	U	
1	11.725	STR-I	98.14	-18.37	U	
1	12.702	STR-I	98.14	-20.64	U	
1	13.679	STR-I	98.14	-22.91	U	
1	14.656	STR-I	98.14	-25.19	U	
1	15.633	STR-I	98.14	-27.46	U	
1	16.610	STR-I	98.14	-29.73	U	
1	17.588	STR-I	98.14	-32.01	U	
1	18.565	STR-I	98.14	-34.28	U	
1	19.542	STR-I	98.14	-36.55	U	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.070	20.0	1	0.000	STR-I
	Shear		1.494	27.9	1	0.000	STR-I
	Controlling		1.070	20.0	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	164.	5.	61.	2.610*	
1	10.748	STR-I	POS.	164.	5.	61.	2.610*	
1	11.725	STR-I	POS.	164.	5.	61.	2.610*	
1	12.702	STR-I	POS.	164.	5.	61.	2.610*	
1	13.679	STR-I	POS.	164.	5.	61.	2.610*	
1	14.656	STR-I	POS.	164.	5.	61.	2.610*	
1	15.633	STR-I	POS.	164.	5.	61.	2.610*	
1	16.610	STR-I	POS.	164.	5.	61.	2.610*	
1	17.588	STR-I	POS.	164.	5.	61.	2.610*	
1	18.565	STR-I	POS.	164.	5.	61.	2.610*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
		BOT	STR-I	POS.	30.0	0.2	3.3	8.969	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	1.000L	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
		BOT	STR-I	POS.	30.0	0.2	3.4	8.775	
1	1.000R	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	1.954	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	2.931	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	3.908	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	4.885	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	5.863	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	6.840	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	7.817	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	8.794	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	
1	9.771L	TOP	STR-I	POS.	-14.3	-1.0	-12.4	1.070*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	54.06	1.09	35.46	1.494	
1	0.977	STR-I	POS.	54.06	0.98	33.30	1.594	
1	1.000L	STR-I	POS.	54.06	0.98	33.25	1.597	
1	1.000R	STR-I	POS.	98.14	0.98	33.25	2.922	
1	1.954	STR-I	POS.	98.14	0.87	31.13	3.124	
1	2.931	STR-I	POS.	98.14	0.77	28.97	3.361	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	3.908	STR-I	POS.	98.14	0.66	26.80	3.637	
1	4.885	STR-I	POS.	98.14	0.55	24.64	3.960	
1	5.863	STR-I	POS.	98.14	0.44	22.48	4.347	
1	6.840	STR-I	POS.	98.14	0.33	20.31	4.815	
1	7.817	STR-I	POS.	98.14	0.22	18.15	5.395	
1	8.794	STR-I	POS.	98.14	0.11	15.99	6.132	
1	9.771L	STR-I	POS.	98.14	0.00	14.00	7.009	
1	9.771R	STR-I	POS.	98.14	0.00	14.00	7.009	
1	10.748	STR-I	NEG.	98.14	-0.11	-15.99	6.132	
1	11.725	STR-I	NEG.	98.14	-0.22	-18.15	5.395	
1	12.702	STR-I	NEG.	98.14	-0.33	-20.31	4.815	
1	13.679	STR-I	NEG.	98.14	-0.44	-22.48	4.347	
1	14.656	STR-I	NEG.	98.14	-0.55	-24.64	3.960	
1	15.633	STR-I	NEG.	98.14	-0.66	-26.80	3.637	
1	16.610	STR-I	NEG.	98.14	-0.77	-28.97	3.361	
1	17.588	STR-I	NEG.	98.14	-0.87	-31.13	3.124	
1	18.565	STR-I	NEG.	98.14	-0.98	-33.30	2.918	
1	19.542	STR-I	NEG.	98.14	-1.09	-35.46	2.737	

Madawaska Severe Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Severe Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	33.78	-0.003865
	LL (SPECIAL #2)	0.00	41.85	-0.005228
	LL (SPECIAL #3)	0.00	35.98	-0.004106
	LL (SPECIAL #4)	0.00	24.45	-0.002695
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	33.78	0.003865
	LL (SPECIAL #2)	0.00	41.85	0.005228
	LL (SPECIAL #3)	0.00	35.98	0.004106
	LL (SPECIAL #4)	0.00	24.45	0.002695

Note: Rotation is about an axis normal to the centerline of the beam.

Madawaska Severe Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65
2	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Severe Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction		Maximum Reaction	
		Vehicle LC	Lane LC	Vehicle LC	Lane LC
		(kips)	(kips)	(kips)	(kips)
1	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	
2	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	

Note: Impact must be added for pier cap design

Madawaska Severe Stringer MaineDOT Trucks 5-8
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.756	33.2	1	0.000	STR-I
Operating	Not Applicable						
SPECIAL #2							
Inventory	Flexure	T	0.575	21.8	1	0.000	STR-I
Operating	Not Applicable						
SPECIAL #3							
Inventory	Flexure	T	0.723	21.5	1	0.000	STR-I
Operating	Not Applicable						
SPECIAL #4							
Inventory	Flexure	T	1.070	20.0	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY	Dist. Fact.	0.258	0.258	0.258	0.258
RATING	Loc. (ft)	0.000	0.000	0.000	0.000
(IR)	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	0.76M	0.57M	0.72M	1.07M
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING	Dist. Fact.	---	---	---	---
RATING	Loc. (ft)	---	---	---	---
(OR)	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					171.46
Location (ft)					1.00R
Maximum Factored Shear Resistance (kips)					98.14
Location (ft)					1.00R
					Span Length(ft) = 19.54

Madawaska Severe Stringer MaineDOT Trucks 5-8
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS

S - SHEAR RATING FACTOR CONTROLS

Madawaska Severe Stringer MaineDOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Severe Stringer MaineDOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

SPECIAL #2

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #3

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

SPECIAL #4

BEARING STIFFENER CHECK

 Madawaska Severe Stringer MaineDOT Trucks 5-8

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Severe MaineDOT Trucks 5-8.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	14
LOAD FACTORS.....	14
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	15
SPECIAL AXLE LOAD.....	15
BRACE POINTS.....	15
SYSTEM SETTINGS.....	15
SECTION PROPERTIES.....	16
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	17
ANALYSIS.....	18
LOAD FACTORS AND COMBINATIONS.....	18
LIVE LOADING SUMMARY.....	18
LOAD MODIFIER.....	18
RESISTANCE FACTORS.....	19
DEAD LOADS.....	19
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	19
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	19

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	20
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	20
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
BEAM WEIGHT ANALYSIS - REACTIONS.....	21
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	21
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	22
TOTAL DC1 ANALYSIS - REACTIONS.....	22
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	24
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	25
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	26
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	26
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	27
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	28
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	29
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	29
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	29
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #1 - ANALYSIS.....	31
UNFACTORED FLEXURAL STRESSES.....	31
USER INPUT LATERAL STRESSES.....	41
FACTORED ANALYSIS RESULTS.....	41
FACTORED LATERAL STRESSES.....	47
SPECIAL #1 - SPECIFICATION CHECKING.....	48
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	48
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	51
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	56
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	57
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	61
FLANGE LATERAL CAPACITY.....	66
NET SECTION FRACTURE CHECK.....	66
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	66

SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	71
SHEAR CAPACITY.....	73
SPECIAL #1 - RATINGS W/O FWS.....	78
RATING FACTORS - SUMMARY.....	78
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	78
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	78
RATING FACTORS - SHEAR CAPACITY.....	80
SPECIAL #2 - ANALYSIS.....	82
UNFACTORED FLEXURAL STRESSES.....	82
USER INPUT LATERAL STRESSES.....	83
FACTORED ANALYSIS RESULTS.....	84
FACTORED LATERAL STRESSES.....	85
SPECIAL #2 - SPECIFICATION CHECKING.....	86
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	86
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	87
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	89
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	89
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	91
FLANGE LATERAL CAPACITY.....	93
NET SECTION FRACTURE CHECK.....	93
SHEAR CAPACITY.....	93
SPECIAL #2 - RATINGS W/O FWS.....	95
RATING FACTORS - SUMMARY.....	95
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	95
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	95
RATING FACTORS - SHEAR CAPACITY.....	97
SPECIAL #3 - ANALYSIS.....	99
UNFACTORED FLEXURAL STRESSES.....	99
USER INPUT LATERAL STRESSES.....	100
FACTORED ANALYSIS RESULTS.....	101
FACTORED LATERAL STRESSES.....	102
SPECIAL #3 - SPECIFICATION CHECKING.....	103
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	103
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	104
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	106
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	106
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	108
FLANGE LATERAL CAPACITY.....	110
NET SECTION FRACTURE CHECK.....	110
SHEAR CAPACITY.....	110
SPECIAL #3 - RATINGS W/O FWS.....	112

RATING FACTORS - SUMMARY.....	112
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	112
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	112
RATING FACTORS - SHEAR CAPACITY.....	114
SPECIAL #4 - ANALYSIS.....	116
UNFACTORED FLEXURAL STRESSES.....	116
USER INPUT LATERAL STRESSES.....	117
FACTORED ANALYSIS RESULTS.....	118
FACTORED LATERAL STRESSES.....	119
SPECIAL #4 - SPECIFICATION CHECKING.....	120
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	120
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	121
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	123
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	123
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	125
FLANGE LATERAL CAPACITY.....	127
NET SECTION FRACTURE CHECK.....	127
SHEAR CAPACITY.....	127
SPECIAL #4 - RATINGS W/O FWS.....	129
RATING FACTORS - SUMMARY.....	129
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	129
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	129
RATING FACTORS - SHEAR CAPACITY.....	130
SUMMARY - OVERALL REACTIONS.....	132
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	132
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	133
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	134
DL REACTIONS (UNFACTORED) PER GIRDER.....	134
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	134
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	135
DL REACTIONS (UNFACTORED) PER GIRDER.....	135
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	135
OVERALL RATING SUMMARY W/O FWS.....	136
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	136
BRIDGE LOAD RATINGS W/O FWS.....	136
SUMMARY - SPECIFICATION CHECKS.....	138
SPECIFICATION CHECK WARNINGS.....	138
SPECIFICATION CHECK FAILURES.....	139

MODERATE SECTION LOSS LOAD RATINGS

MODERATE SECTION LOSS HL-93 (TANDEM) INVENTORY RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Moderate Stringer HL-93 Inv
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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```

Madawaska Moderate Stringer HL-93 Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Moderate Stringer HL-93 Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer HL-93 Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.95,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.64,0
SAL 1,25,4,25,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

 Madawaska Moderate Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.95
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.64 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	25 kip
AXLE SPACING	4 ft
AXLE LOAD	25 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1

 Madawaska Moderate Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: OAN (cont.)
    FACTORED REACTIONS           0
    SUMMARY-OVERALL REACTIONS    1

COMMAND: OSC
    DUCTILITY AND PROPORTIONS    0
    WIND EFFECTS                 0
    FLEXURAL CAPACITY            1
    SHEAR CAPACITY               1
    WEB CHECKS                   0
    STIFFENER CHECKS             0
    FATIGUE CHECKS               0
    FATIGUE LIFE ESTIMATION      0
    DEFLECTION CHECKS            0
    SHEAR CONNECTOR CHECKS      0
    STAGING / UNCURED CHECKS    0
    WELD CAPACITY                0
    ECONOMIC FEASIBILITY         0
    NEG MOM SERVICEABILITY       0
    SPLRFD INFORMATION           0

COMMAND: ORF
    VEHICLE RATING SUMMARY       1
    DETAILED RATING FACTORS      1
    OVERALL RATING SUMMARY       1
    RATINGS W/O FWS              1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT      490. lbf/ft^3  (default)
CONSTRUCT. MODULAR RATIO *      (computed, if necessary)
INC. FLG. IN HAUNCH WGT.   Y      (default)
AASHTO/PENNDOT SPECS      P      (default)
PRINT DIMENSION FILE      N      (default)
    
```

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

 Madawaska Moderate Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00	DC1S Percentage 0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms NO	Number of Design Lanes 2	Deflection Distribution Factor

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.258	DF2 0.258	DF1 0.600	DF2 0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.000	DF2 0.000	DF1 0.000	DF2 0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

Madawaska Moderate Stringer HL-93 Inv
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Flange Fu (ksi)	Plate Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1	L	L	L	13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Moderate Stringer HL-93 InvINPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor								
Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V	
SLL	1.950	0.000	0.000	0.000	0.000	0.000	0.000	
Load Factor								
Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

 Madawaska Moderate Stringer HL-93 Inv
 INPUT (cont.)

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer HL-93 Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer HL-93 Inv

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	153.4	6.171	N/A	1.24
1	0.977	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000L	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000R	N/A	N/A	152.4	5.772	N/A	1.46
1	1.954	N/A	N/A	152.4	5.772	N/A	1.46
1	2.931	N/A	N/A	152.4	5.772	N/A	1.46
1	3.908	N/A	N/A	152.4	5.772	N/A	1.46
1	4.885	N/A	N/A	152.4	5.772	N/A	1.46
1	5.863	N/A	N/A	152.4	5.772	N/A	1.46
1	6.840	N/A	N/A	152.4	5.772	N/A	1.46
1	7.817	N/A	N/A	152.4	5.772	N/A	1.46
1	8.794	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771L	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771R	N/A	N/A	152.4	5.772	N/A	1.46
1	10.748	N/A	N/A	152.4	5.772	N/A	1.46
1	11.725	N/A	N/A	152.4	5.772	N/A	1.46
1	12.702	N/A	N/A	152.4	5.772	N/A	1.46
1	13.679	N/A	N/A	152.4	5.772	N/A	1.46
1	14.656	N/A	N/A	152.4	5.772	N/A	1.46
1	15.633	N/A	N/A	152.4	5.772	N/A	1.46
1	16.610	N/A	N/A	152.4	5.772	N/A	1.46
1	17.588	N/A	N/A	152.4	5.772	N/A	1.46

Madawaska Moderate Stringer HL-93 Inv

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Moderate Stringer HL-93 Inv
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.95	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Moderate Stringer HL-93 Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer HL-93 Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer HL-93 Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer HL-93 Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.000L	16.1	37.14	0.0	0.00
1	1.000R	16.1	37.14	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00

Madawaska Moderate Stringer HL-93 Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00
1	17.588	29.6	-34.83	0.0	0.00
1	18.542L	16.1	-37.14	0.0	0.00
1	18.542R	16.1	-37.14	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.000L	37.15	16.0	-1.03	8.2	0.052
1	1.000R	37.15	16.0	-1.03	8.2	0.052
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291

Madawaska Moderate Stringer HL-93 Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.542L	1.03	8.2	-37.15	16.0	0.052
1	18.542R	1.03	8.2	-37.15	16.0	0.052
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
1	7.817	TOP	SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	8.794	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	78.25	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	31.6	73.54	9.21	-11.68	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	32.3	73.43	9.42	-11.93	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	32.3	73.43	N/A*	-7.95	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	59.6	68.86	N/A*	-14.64	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	83.9	64.22	N/A*	-20.61	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	104.5	59.62	N/A*	-25.67	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	4.885	STR-I	POS.	121.4	55.05	N/A*	-29.82	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	134.6	50.52	N/A*	-33.07	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	144.2	46.03	N/A*	-35.42	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	150.0	41.57	N/A*	-36.86	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	152.2	37.15	N/A*	-37.39	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	150.7	32.77	N/A*	-37.02	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	150.7	32.77	N/A*	-37.02	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	152.2	-37.15	N/A*	-37.39	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	150.0	-41.57	N/A*	-36.86	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	144.2	-46.03	N/A*	-35.42	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	134.6	-50.52	N/A*	-33.07	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	121.4	-55.05	N/A*	-29.82	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	104.5	-59.62	N/A*	-25.67	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	83.9	-64.22	N/A*	-20.61	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	59.6	-68.86	N/A*	-14.64	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	32.3	-73.43	N/A*	-7.95	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	32.3	-73.43	N/A*	-6.57	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	31.6	-73.54	N/A*	-6.43	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-78.25	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	32.3	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	59.6	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	83.9	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	104.5	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	121.4	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	134.6	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	144.2	D	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	150.0	D	
		STR-IA	POS.	152.4	5.1	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
1	8.794	STR-I	POS.	152.4	152.2	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
1	9.771L	STR-I	POS.	152.4	150.7	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
1	9.771R	STR-I	POS.	152.4	150.7	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
1	10.748	STR-I	POS.	152.4	152.2	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
1	11.725	STR-I	POS.	152.4	150.0	D	
		STR-IA	POS.	152.4	5.1	D	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	144.2	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	134.6	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	121.4	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	104.5	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	83.9	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	59.6	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	32.3	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	32.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	31.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_{+}^{*} (ksi)	Resistance Calculation **	Code Check ***
					R_h^{*}	R_b^{*}	$M_r(e)^{*}$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-11.7	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	9.2	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-11.9	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
1	1.000L	TOP	STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	9.4	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.220	16.92	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.220	16.92	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.220	16.95	1.220	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-37.4	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-37.4	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-37.4	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	-37.4	N/A	A

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Fr (ksi)			
1	1.000R	TOP	STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-37.4	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local	*	Governing	*	Local	*	Governing	*	Stress	Moment		
					(ksi)		(kip-ft)	(ksi)	(kip-ft)	(ksi)	(kip-ft)	(ksi)	(kip-ft)			
1	18.542L	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	18.542R	TOP	STR-I	P	-29.5	B	120.	-29.5	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	18.565	TOP	STR-I	P	-29.5	B	120.	-29.5	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	152.	A
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-II	POS.	1.000	95.0	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive

flexure in which the web satisfies the requirement of LRFD

Specifications Article 6.10.2.1.1

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY			Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	
1	0.000	STR-I	60.74	78.25	U	A
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	73.54	U	A
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	73.43	U	A
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	73.43	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	68.86	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	64.22	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	59.62	U	
		STR-IA	88.35	0.66	U	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	55.05	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	
		STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	50.52	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	46.03	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	41.57	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	37.15	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	32.77	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771L	STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	32.77	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-37.15	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-41.57	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-46.03	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-50.52	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-55.05	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	14.656	STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-59.62	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	
1	16.610	STR-I	88.35	-64.22	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-68.86	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-73.43	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-73.43	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-73.54	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	

 Madawaska Moderate Stringer HL-93 Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-I	98.14	-78.25	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Moderate Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.612	15.3	1	0.000	STR-I
	Shear		0.773	19.3	1	0.000	STR-I
	Controlling		0.612	15.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	148.	5.	147.	0.971*	D
1	10.748	STR-I	POS.	148.	5.	147.	0.971*	D
1	11.725	STR-I	POS.	148.	5.	147.	0.971*	D
1	12.702	STR-I	POS.	148.	5.	147.	0.971*	D
1	13.679	STR-I	POS.	148.	5.	147.	0.971*	D
1	14.656	STR-I	POS.	148.	5.	147.	0.971*	D
1	15.633	STR-I	POS.	148.	5.	147.	0.971*	D
1	16.610	STR-I	POS.	148.	5.	147.	0.971*	D
1	17.588	STR-I	POS.	148.	5.	147.	0.971*	D
1	18.542L	STR-I	POS.	148.	5.	147.	0.971*	D
1	18.542R	STR-I	POS.	148.	5.	147.	0.971*	D
1	18.565	STR-I	POS.	148.	5.	147.	0.971*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-36.1 8.9	0.612* 3.330	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-36.1 9.1	0.612* 3.258	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-36.1	0.612*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	77.16	0.773	C
1	0.977	STR-I	POS.	60.74	0.98	72.55	0.824	C
1	1.000L	STR-I	POS.	60.74	0.98	72.45	0.825	C
1	1.000R	STR-I	POS.	88.35	0.98	72.45	1.206	
1	1.954	STR-I	POS.	88.35	0.87	67.99	1.287	
1	2.931	STR-I	POS.	88.35	0.77	63.46	1.380	
1	3.908	STR-I	POS.	88.35	0.66	58.96	1.487	
1	4.885	STR-I	POS.	88.35	0.55	54.51	1.611	
1	5.863	STR-I	POS.	88.35	0.44	50.09	1.755	
1	6.840	STR-I	POS.	88.35	0.33	45.70	1.926	
1	7.817	STR-I	POS.	88.35	0.22	41.35	2.131	
1	8.794	STR-I	POS.	88.35	0.11	37.04	2.382	
1	9.771L	STR-I	POS.	88.35	0.00	32.77	2.696	
1	9.771R	STR-I	POS.	88.35	0.00	32.77	2.696	
1	10.748	STR-I	NEG.	88.35	-0.11	-37.04	2.382	
1	11.725	STR-I	NEG.	88.35	-0.22	-41.35	2.131	
1	12.702	STR-I	NEG.	88.35	-0.33	-45.70	1.926	
1	13.679	STR-I	NEG.	88.35	-0.44	-50.09	1.755	
1	14.656	STR-I	NEG.	88.35	-0.55	-54.51	1.611	
1	15.633	STR-I	NEG.	88.35	-0.66	-58.96	1.487	
1	16.610	STR-I	NEG.	88.35	-0.77	-63.46	1.380	
1	17.588	STR-I	NEG.	88.35	-0.87	-67.99	1.287	

Madawaska Moderate Stringer HL-93 Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-72.45	1.206	
1	18.542R	STR-I	NEG.	98.14	-0.98	-72.45	1.341	
1	18.565	STR-I	NEG.	98.14	-0.98	-72.55	1.339	
1	19.542	STR-I	NEG.	98.14	-1.09	-77.16	1.258	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Moderate Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Moderate Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		44.88	
2	SPECIAL #1	0.00		44.88	

Note: Impact must be added for pier cap design

 Madawaska Moderate Stringer HL-93 Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----							
Inventory	Flexure	T	0.612	15.3	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span	1		Beam Type and Size: STEEL PLATE GIRDER 14. inches
		SPECIAL #1	
INVENTORY	Dist. Fact.	0.258	
RATING	Loc. (ft)	0.000	
(IR)	Limit State	STR-I	
	RF	0.61M	

Span	1		Beam Type and Size: STEEL PLATE GIRDER 14. inches
		SPECIAL #1	
OPERATING	Dist. Fact.	---	
RATING	Loc. (ft)	---	
(OR)	Limit State	---	
	RF	---	

Maximum Factored Flexural Resistance (kip-ft)	171.46	Span Length(ft) = 19.54
Location (ft)	18.54R	

Maximum Factored Shear Resistance (kips)	98.14
Location (ft)	18.54R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Moderate Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - MOMENT FLEXURAL CAPACITY
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

 Madawaska Moderate Stringer HL-93 Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate HL-93 Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	18
LOAD FACTORS AND COMBINATIONS.....	18
LIVE LOADING SUMMARY.....	18
LOAD MODIFIER.....	18
RESISTANCE FACTORS.....	19
DEAD LOADS.....	19
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	19
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	19

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	20
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	20
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
BEAM WEIGHT ANALYSIS - REACTIONS.....	21
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	21
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	22
TOTAL DC1 ANALYSIS - REACTIONS.....	22
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #1 - ANALYSIS.....	25
UNFACTORED FLEXURAL STRESSES.....	25
USER INPUT LATERAL STRESSES.....	36
FACTORED ANALYSIS RESULTS.....	36
FACTORED LATERAL STRESSES.....	43
SPECIAL #1 - SPECIFICATION CHECKING.....	44
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	44
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	48
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	53
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	58
FLANGE LATERAL CAPACITY.....	63
NET SECTION FRACTURE CHECK.....	63
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	63
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	68
SHEAR CAPACITY.....	71
SPECIAL #1 - RATINGS W/O FWS.....	76
RATING FACTORS - SUMMARY.....	76
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	76
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	77
RATING FACTORS - SHEAR CAPACITY.....	78
SUMMARY - OVERALL REACTIONS.....	80
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	80
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	81
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	82
DL REACTIONS (UNFACTORED) PER GIRDER.....	82
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	82
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	83
DL REACTIONS (UNFACTORED) PER GIRDER.....	83

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	83
OVERALL RATING SUMMARY W/O FWS.....	84
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	84
BRIDGE LOAD RATINGS W/O FWS.....	84
SUMMARY - SPECIFICATION CHECKS.....	85
SPECIFICATION CHECK WARNINGS.....	85
SPECIFICATION CHECK FAILURES.....	86

MODERATE SECTION LOSS
HL-93 (TANDEM)
OPERATING RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Moderate Stringer HL-93 Oper
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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*****

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Madawaska Moderate Stringer HL-93 Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Moderate Stringer HL-93 Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer HL-93 Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.50,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.64,0
SAL 1,25,4,25,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Moderate Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

 Madawaska Moderate Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Moderate Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

Madawaska Moderate Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

 Madawaska Moderate Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH          4 ksi
CONC. DENSITY FOR LOADS    0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.50
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

Madawaska Moderate Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.64 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	25 kip
AXLE SPACING	4 ft
AXLE LOAD	25 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1

 Madawaska Moderate Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: OAN (cont.)
    FACTORED REACTIONS              0
    SUMMARY-OVERALL REACTIONS       1

COMMAND: OSC
    DUCTILITY AND PROPORTIONS       0
    WIND EFFECTS                    0
    FLEXURAL CAPACITY               1
    SHEAR CAPACITY                  1
    WEB CHECKS                      0
    STIFFENER CHECKS                0
    FATIGUE CHECKS                  0
    FATIGUE LIFE ESTIMATION         0
    DEFLECTION CHECKS               0
    SHEAR CONNECTOR CHECKS         0
    STAGING / UNCURED CHECKS       0
    WELD CAPACITY                   0
    ECONOMIC FEASIBILITY            0
    NEG MOM SERVICEABILITY          0
    SPLRFD INFORMATION              0

COMMAND: ORF
    VEHICLE RATING SUMMARY          1
    DETAILED RATING FACTORS         1
    OVERALL RATING SUMMARY          1
    RATINGS W/O FWS                 1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT      490. lbf/ft^3   (default)
CONSTRUCT. MODULAR RATIO *      (computed, if necessary)
INC. FLG. IN HAUNCH WGT.   Y      (default)
AASHTO/PENNDOT SPECS      P      (default)
PRINT DIMENSION FILE      N      (default)
    
```

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

 Madawaska Moderate Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00	DC1S Percentage 0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms NO	Number of Design Lanes 2	Deflection Distribution Factor

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.258	DF2 0.258	DF1 0.600	DF2 0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.000	DF2 0.000	DF1 0.000	DF2 0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

Madawaska Moderate Stringer HL-93 Oper
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Flange Top Fu (ksi)	Plate Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Moderate Stringer HL-93 Oper
INPUT (cont.)

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor								
Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V	
SLL	1.500	0.000	0.000	0.000	0.000	0.000	0.000	
Load Factor								
Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

 Madawaska Moderate Stringer HL-93 Oper
 INPUT (cont.)

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer HL-93 Oper

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer HL-93 Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties		Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Depth of Web, Dcp (k-ft) (in)		
1	0.000	N/A	N/A	153.4	6.171	N/A
1	0.977	N/A	N/A	153.4	6.171	N/A
1	1.000L	N/A	N/A	153.4	6.171	N/A
1	1.000R	N/A	N/A	152.4	5.772	N/A
1	1.954	N/A	N/A	152.4	5.772	N/A
1	2.931	N/A	N/A	152.4	5.772	N/A
1	3.908	N/A	N/A	152.4	5.772	N/A
1	4.885	N/A	N/A	152.4	5.772	N/A
1	5.863	N/A	N/A	152.4	5.772	N/A
1	6.840	N/A	N/A	152.4	5.772	N/A
1	7.817	N/A	N/A	152.4	5.772	N/A
1	8.794	N/A	N/A	152.4	5.772	N/A
1	9.771L	N/A	N/A	152.4	5.772	N/A
1	9.771R	N/A	N/A	152.4	5.772	N/A
1	10.748	N/A	N/A	152.4	5.772	N/A
1	11.725	N/A	N/A	152.4	5.772	N/A
1	12.702	N/A	N/A	152.4	5.772	N/A
1	13.679	N/A	N/A	152.4	5.772	N/A
1	14.656	N/A	N/A	152.4	5.772	N/A
1	15.633	N/A	N/A	152.4	5.772	N/A
1	16.610	N/A	N/A	152.4	5.772	N/A
1	17.588	N/A	N/A	152.4	5.772	N/A

 Madawaska Moderate Stringer HL-93 Oper
 SECTION PROPERTIES (cont.)

 ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Moderate Stringer HL-93 Oper
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.50	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Moderate Stringer HL-93 Oper
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer HL-93 Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

 Madawaska Moderate Stringer HL-93 Oper
 ANALYSIS (cont.)

 BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

 PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

 PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer HL-93 Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.000L	16.1	37.14	0.0	0.00
1	1.000R	16.1	37.14	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00

Madawaska Moderate Stringer HL-93 Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00
1	17.588	29.6	-34.83	0.0	0.00
1	18.542L	16.1	-37.14	0.0	0.00
1	18.542R	16.1	-37.14	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.000L	37.15	16.0	-1.03	8.2	0.052
1	1.000R	37.15	16.0	-1.03	8.2	0.052
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291

Madawaska Moderate Stringer HL-93 Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.542L	1.03	8.2	-37.15	16.0	0.052
1	18.542R	1.03	8.2	-37.15	16.0	0.052
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.6	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
1	6.840	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
1	7.817	TOP	SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	8.794	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.0	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.3	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.8	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-17.6	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.0	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.4	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.9	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.3	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.5	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
		TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer HL-93 Oper
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. Limits*		Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	0.6*f'c (ksi)	0.85*f'c (ksi)	
1	0.000	STR-I	POS.	0.0	60.45	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**			
1	0.977	STR-I	POS.	24.6	56.80	7.16	-9.07	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**			
1	1.000L	STR-I	POS.	25.1	56.71	7.31	-9.27	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. (ksi)	Bm. Top (ksi)	Top S/R (ksi)			
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.1	56.71	N/A*	-6.17	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	46.3	53.17	N/A*	-11.37	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	65.2	49.58	N/A*	-16.01	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	81.2	46.01	N/A*	-19.94	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	4.885	STR-I	POS.	94.3	42.47	N/A*	-23.17	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	104.6	38.96	N/A*	-25.69	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	112.0	35.48	N/A*	-27.52	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	116.6	32.03	N/A*	-28.64	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	118.3	28.60	N/A*	-29.06	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	117.2	25.21	N/A*	-28.78	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	117.2	25.21	N/A*	-28.78	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	118.3	-28.60	N/A*	-29.06	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	116.6	-32.03	N/A*	-28.64	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	112.0	-35.48	N/A*	-27.52	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	104.6	-38.96	N/A*	-25.69	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	94.3	-42.47	N/A*	-23.17	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	81.2	-46.01	N/A*	-19.94	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm.	Top Bm.	Top S/R			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	65.2	-49.58	N/A*	-16.01	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	46.3	-53.17	N/A*	-11.37	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	25.1	-56.71	N/A*	-6.17	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	25.1	-56.71	N/A*	-5.11	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.6	-56.80	N/A*	-5.00	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.45	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	25.1	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	46.3	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	65.2	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	81.2	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	94.3	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	104.6	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	112.0	D	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-I	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	116.6	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	8.794	STR-I	POS.	152.4	118.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771L	STR-I	POS.	152.4	117.2	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771R	STR-I	POS.	152.4	117.2	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	10.748	STR-I	POS.	152.4	118.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	11.725	STR-I	POS.	152.4	116.6	D	
		STR-II	POS.	152.4	5.1	D	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	112.0	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	104.6	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	94.3	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	81.2	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	65.2	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	46.3	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	25.1	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	25.1	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	24.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F+*	Resistance Calculation **	Code Check ***
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-9.1	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	7.2	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-9.3	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	7.3	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.221	16.92	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.221	16.92	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.221	16.95	1.221	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-29.1	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-29.1	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-29.1	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	-29.1	N/A	A

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)		Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	* Mr (kip-ft)				
1	1.000R	TOP	STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3				Appendix A				Factored Effects		Code Chk ***	
					Flexural Resistance				Flexural Resistance				Flexural	Effects		
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-29.1	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.6	B	120.	-29.6	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral		Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***	
1	18.542L	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	18.542R	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	18.565	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	19.542	TOP	STR-I	P	-29.6	B	120.	-29.6	B	148.	E	148.	E	N/A	118.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

*** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-II	POS.	1.000	95.0	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive

flexure in which the web satisfies the requirement of LRFD

Specifications Article 6.10.2.1.1

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY					
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened
Code Check*					
1	0.000	STR-I	60.74	60.45	U
		STR-IA	60.74	1.09	U
		STR-II	60.74	1.09	U
		STR-III	60.74	1.09	U
		STR-IV	60.74	1.31	U
		STR-V	60.74	1.09	U
1	0.977	STR-I	60.74	56.80	U
		STR-IA	60.74	0.98	U
		STR-II	60.74	0.98	U
		STR-III	60.74	0.98	U
		STR-IV	60.74	1.18	U
		STR-V	60.74	0.98	U
1	1.000L	STR-I	60.74	56.71	U
		STR-IA	60.74	0.98	U
		STR-II	60.74	0.98	U
		STR-III	60.74	0.98	U
		STR-IV	60.74	1.18	U
		STR-V	60.74	0.98	U
1	1.000R	STR-I	88.35	56.71	U
		STR-IA	88.35	0.98	U
		STR-II	88.35	0.98	U
		STR-III	88.35	0.98	U
		STR-IV	88.35	1.18	U
		STR-V	88.35	0.98	U
1	1.954	STR-I	88.35	53.17	U
		STR-IA	88.35	0.87	U
		STR-II	88.35	0.87	U
		STR-III	88.35	0.87	U
		STR-IV	88.35	1.05	U
		STR-V	88.35	0.87	U
1	2.931	STR-I	88.35	49.58	U
		STR-IA	88.35	0.77	U
		STR-II	88.35	0.77	U
		STR-III	88.35	0.77	U
		STR-IV	88.35	0.92	U
		STR-V	88.35	0.77	U
1	3.908	STR-I	88.35	46.01	U
		STR-IA	88.35	0.66	U

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	42.47	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	
		STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	38.96	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	35.48	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	32.03	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	28.60	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	25.21	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771L	STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	25.21	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-28.60	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-32.03	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-35.48	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-38.96	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-42.47	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	14.656	STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-46.01	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	
1	16.610	STR-I	88.35	-49.58	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-53.17	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-56.71	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-56.71	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-56.80	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	

 Madawaska Moderate Stringer HL-93 Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-I	98.14	-60.45	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

 Madawaska Moderate Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.795	19.9	1	0.000	STR-I
	Shear		1.005	25.1	1	0.000	STR-I
	Controlling		0.795	19.9	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	148.	5.	113.	1.264*	
1	10.748	STR-I	POS.	148.	5.	113.	1.264*	
1	11.725	STR-I	POS.	148.	5.	113.	1.264*	
1	12.702	STR-I	POS.	148.	5.	113.	1.264*	
1	13.679	STR-I	POS.	148.	5.	113.	1.264*	
1	14.656	STR-I	POS.	148.	5.	113.	1.264*	
1	15.633	STR-I	POS.	148.	5.	113.	1.264*	
1	16.610	STR-I	POS.	148.	5.	113.	1.264*	
1	17.588	STR-I	POS.	148.	5.	113.	1.264*	
1	18.542L	STR-I	POS.	148.	5.	113.	1.264*	
1	18.542R	STR-I	POS.	148.	5.	113.	1.263*	
1	18.565	STR-I	POS.	148.	5.	113.	1.263*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

Madawaska Moderate Stringer HL-93 Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-27.8 6.9	0.795* 4.330	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-27.8 7.0	0.795* 4.235	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.795*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	59.35	1.005	
1	0.977	STR-I	POS.	60.74	0.98	55.81	1.071	
1	1.000L	STR-I	POS.	60.74	0.98	55.73	1.072	
1	1.000R	STR-I	POS.	88.35	0.98	55.73	1.568	
1	1.954	STR-I	POS.	88.35	0.87	52.30	1.673	
1	2.931	STR-I	POS.	88.35	0.77	48.81	1.794	
1	3.908	STR-I	POS.	88.35	0.66	45.36	1.933	
1	4.885	STR-I	POS.	88.35	0.55	41.93	2.094	
1	5.863	STR-I	POS.	88.35	0.44	38.53	2.282	
1	6.840	STR-I	POS.	88.35	0.33	35.15	2.504	
1	7.817	STR-I	POS.	88.35	0.22	31.81	2.770	
1	8.794	STR-I	POS.	88.35	0.11	28.49	3.097	
1	9.771L	STR-I	POS.	88.35	0.00	25.21	3.505	
1	9.771R	STR-I	POS.	88.35	0.00	25.21	3.505	
1	10.748	STR-I	NEG.	88.35	-0.11	-28.49	3.097	
1	11.725	STR-I	NEG.	88.35	-0.22	-31.81	2.770	
1	12.702	STR-I	NEG.	88.35	-0.33	-35.15	2.504	
1	13.679	STR-I	NEG.	88.35	-0.44	-38.53	2.282	
1	14.656	STR-I	NEG.	88.35	-0.55	-41.93	2.094	
1	15.633	STR-I	NEG.	88.35	-0.66	-45.36	1.933	
1	16.610	STR-I	NEG.	88.35	-0.77	-48.81	1.794	
1	17.588	STR-I	NEG.	88.35	-0.87	-52.30	1.673	

 Madawaska Moderate Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-55.73	1.568	
1	18.542R	STR-I	NEG.	98.14	-0.98	-55.73	1.743	
1	18.565	STR-I	NEG.	98.14	-0.98	-55.81	1.741	
1	19.542	STR-I	NEG.	98.14	-1.09	-59.35	1.635	

 Madawaska Moderate Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Moderate Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	44.88
2	SPECIAL #1	0.00	44.88

Note: Impact must be added for pier cap design

 Madawaska Moderate Stringer HL-93 Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----							
Inventory	Flexure	T	0.795	19.9	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
INVENTORY	Dist. Fact. 0.258
RATING	Loc. (ft) 0.000
(IR)	Limit State STR-I
	RF 0.80M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
OPERATING	Dist. Fact. ---
RATING	Loc. (ft) ---
(OR)	Limit State ---
	RF ---

Maximum Factored Flexural Resistance (kip-ft)	171.46	Span Length(ft) = 19.54
Location (ft)	18.54R	

Maximum Factored Shear Resistance (kips)	98.14
Location (ft)	18.54R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Moderate Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY

 Madawaska Moderate Stringer HL-93 Oper

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate HL-93 Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	18
LOAD FACTORS AND COMBINATIONS.....	18
LIVE LOADING SUMMARY.....	18
LOAD MODIFIER.....	18
RESISTANCE FACTORS.....	19
DEAD LOADS.....	19
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	19
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	19

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	20
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	20
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
BEAM WEIGHT ANALYSIS - REACTIONS.....	21
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	21
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	22
TOTAL DC1 ANALYSIS - REACTIONS.....	22
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #1 - ANALYSIS.....	25
UNFACTORED FLEXURAL STRESSES.....	25
USER INPUT LATERAL STRESSES.....	36
FACTORED ANALYSIS RESULTS.....	36
FACTORED LATERAL STRESSES.....	43
SPECIAL #1 - SPECIFICATION CHECKING.....	44
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	44
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	48
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	52
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	53
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	58
FLANGE LATERAL CAPACITY.....	63
NET SECTION FRACTURE CHECK.....	63
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	63
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	68
SHEAR CAPACITY.....	71
SPECIAL #1 - RATINGS W/O FWS.....	76
RATING FACTORS - SUMMARY.....	76
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	76
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	77
RATING FACTORS - SHEAR CAPACITY.....	78
SUMMARY - OVERALL REACTIONS.....	80
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	80
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	81
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	82
DL REACTIONS (UNFACTORED) PER GIRDER.....	82
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	82
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	83
DL REACTIONS (UNFACTORED) PER GIRDER.....	83

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	83
OVERALL RATING SUMMARY W/O FWS.....	84
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	84
BRIDGE LOAD RATINGS W/O FWS.....	84
SUMMARY - SPECIFICATION CHECKS.....	85
SPECIFICATION CHECK WARNINGS.....	85
SPECIFICATION CHECK FAILURES.....	86

MODERATE SECTION LOSS CL-625-ONT TRUCK INVENTORY RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated      09/08/2016
*   Documentation      09/2016
*   License No.       332672
*
*****
*
*   Madawaska Moderate Stringer CL-625-ONT Truck Inv
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
*****
*
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Madawaska Moderate Stringer CL-625-ONT Truck Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Moderate Stringer CL-625-ONT Truck Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer CL-625-ONT Truck Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.25
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Moderate Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.25	
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Moderate Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Moderate Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

Madawaska Moderate Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

Madawaska Moderate Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.63
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE            0 ft
END SPAN NUMBER          1
END DISTANCE              19.541666666 ft
START MAGNITUDE           0.047 kip/ft
END MAGNITUDE             0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER        1
AXLE EFFECT               N
LANE LOAD                 0 kip/ft
PERCENT INCREASE         0

COMMAND: SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 11.240 kip
AXLE SPACING              11.81 ft
AXLE LOAD                 31.473 kip
AXLE SPACING              3.94 ft
AXLE LOAD                 31.473 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 39.342 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 26.977 kip
AXLE SPACING              0 ft

COMMAND: BRP
START SPAN NUMBER        1
START SPAN DISTANCE      0 ft
END SPAN NUMBER          1
END SPAN DISTANCE        19.5417 ft
BRACE SPACING            9.77 ft

COMMAND: OIN
INPUT FILE ECHO          1
INPUT COMMANDS           1
INPUT SUMMARY            1

```

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  OAN
POINTS OF CONTRAFLEXURE          0
COMPACTNESS CHK REDIST.          0
LOAD MODIFIERS                    1
DEAD LOADS                        1
DISTRIBUTION FACTORS              1
DEAD LOAD EFFECTS                 1
DEAD LOAD REACTIONS               1
STAGING ANALYSIS                  0
LIVE LOAD EFFECTS                 1
LIVE LOAD REACTIONS               1
HS20 EFFECTS & REACTIONS           0
H20 EFFECTS & REACTIONS            0
FATIGUE EFFECTS & REACT.           0
FACTORED EFFECTS                  1
FACTORED REACTIONS                0
SUMMARY-OVERALL REACTIONS         1

COMMAND:  OSC
DUCTILITY AND PROPORTIONS         0
WIND EFFECTS                      0
FLEXURAL CAPACITY                 1
SHEAR CAPACITY                    1
WEB CHECKS                        0
STIFFENER CHECKS                  0
FATIGUE CHECKS                    0
FATIGUE LIFE ESTIMATION           0
DEFLECTION CHECKS                 0
SHEAR CONNECTOR CHECKS            0
STAGING / UNCURED CHECKS          0
WELD CAPACITY                     0
ECONOMIC FEASIBILITY              0
NEG MOM SERVICEABILITY            0
SPLRFD INFORMATION                0

COMMAND:  ORF
VEHICLE RATING SUMMARY            1
DETAILED RATING FACTORS           1
OVERALL RATING SUMMARY            1
RATINGS W/O FWS                   1
    
```

The following are system settings:

```

-----
STEEL DENSITY/WEIGHT              490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO          *          (computed, if necessary)
INC. FLG. IN HAUNCH WGT.          Y          (default)
AASHTO/PENNDOT SPECS              P          (default)
PRINT DIMENSION FILE              N          (default)
    
```

Madawaska Moderate Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

Input Check Completed
- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00	DC1S Percentage 0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms NO	Number of Design Lanes 2	Deflection Distribution Factor

Madawaska Moderate Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V A R Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

Madawaska Moderate Stringer CL-625-ONT Truck Inv

INPUT (cont.)

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240	11.810	31.473	3.940	31.473	21.650	39.342	21.650
	26.977	0.000						

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

BRACE POINTS -----				
Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS -----	
Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties		Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Depth of Web, Dcp (k-ft) (in)		
1	0.000	N/A	N/A	153.4	6.171	1.24
1	0.977	N/A	N/A	153.4	6.171	1.24
1	1.000L	N/A	N/A	153.4	6.171	1.24
1	1.000R	N/A	N/A	152.4	5.772	1.46
1	1.954	N/A	N/A	152.4	5.772	1.46
1	2.931	N/A	N/A	152.4	5.772	1.46
1	3.908	N/A	N/A	152.4	5.772	1.46
1	4.885	N/A	N/A	152.4	5.772	1.46
1	5.863	N/A	N/A	152.4	5.772	1.46
1	6.840	N/A	N/A	152.4	5.772	1.46
1	7.817	N/A	N/A	152.4	5.772	1.46
1	8.794	N/A	N/A	152.4	5.772	1.46
1	9.771L	N/A	N/A	152.4	5.772	1.46
1	9.771R	N/A	N/A	152.4	5.772	1.46
1	10.748	N/A	N/A	152.4	5.772	1.46
1	11.725	N/A	N/A	152.4	5.772	1.46
1	12.702	N/A	N/A	152.4	5.772	1.46
1	13.679	N/A	N/A	152.4	5.772	1.46
1	14.656	N/A	N/A	152.4	5.772	1.46
1	15.633	N/A	N/A	152.4	5.772	1.46
1	16.610	N/A	N/A	152.4	5.772	1.46
1	17.588	N/A	N/A	152.4	5.772	1.46

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier Used	Fatigue Load Modifier Used
Ni	Nd	Nr	Ni*Nd*Nr		
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.000L	17.7	41.24	0.0	0.00
1	1.000R	17.7	41.24	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00
1	17.588	32.4	-38.52	0.0	0.00
1	18.542L	17.7	-41.24	0.0	0.00
1	18.542R	17.7	-41.24	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.000L	41.24	17.7	-1.51	12.0	0.054
1	1.000R	41.24	17.7	-1.51	12.0	0.054
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297

Madawaska Moderate Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.542L	1.51	12.0	-41.24	17.7	0.054
1	18.542R	1.51	12.0	-41.24	17.7	0.054
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.5	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
1	6.840	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
1	7.817	TOP	SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	8.794	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
		BOT	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	72.95	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	29.3	68.31	8.53	-10.81	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	29.9	68.20	8.72	-11.05	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. Top Bm. Top S/R (ksi) (ksi) (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24 -0.31	0.00	N/A**	N/A**
1	1.000R	STR-I	POS.	29.9	68.20	N/A* -7.36	0.00	N/A**	N/A**
		STR-IA	POS.	1.0	0.98	N/A* -0.25	0.00	N/A**	N/A**
		STR-II	POS.	1.0	0.98	N/A* -0.25	0.00	N/A**	N/A**
		STR-III	POS.	1.0	0.98	N/A* -0.25	0.00	N/A**	N/A**
		STR-IV	POS.	1.2	1.18	N/A* -0.31	0.00	N/A**	N/A**
		STR-V	POS.	1.0	0.98	N/A* -0.25	0.00	N/A**	N/A**
		SERV-I	POS.	0.8	0.78	0.21 -0.20	0.00	N/A**	N/A**
		SERV-II	POS.	0.8	0.78	0.21 -0.20	0.00	N/A**	N/A**
		SERV-IIA	POS.	0.8	0.78	0.21 -0.20	0.00	N/A**	N/A**
		SERV-IIB	POS.	0.8	0.78	0.21 -0.20	0.00	N/A**	N/A**
1	1.954	STR-I	POS.	54.7	63.67	N/A* -13.43	0.00	N/A**	N/A**
		STR-IA	POS.	1.9	0.87	N/A* -0.47	0.00	N/A**	N/A**
		STR-II	POS.	1.9	0.87	N/A* -0.47	0.00	N/A**	N/A**
		STR-III	POS.	1.9	0.87	N/A* -0.47	0.00	N/A**	N/A**
		STR-IV	POS.	2.3	1.05	N/A* -0.57	0.00	N/A**	N/A**
		STR-V	POS.	1.9	0.87	N/A* -0.47	0.00	N/A**	N/A**
		SERV-I	POS.	1.5	0.70	0.39 -0.38	0.00	N/A**	N/A**
		SERV-II	POS.	1.5	0.70	0.39 -0.38	0.00	N/A**	N/A**
		SERV-IIA	POS.	1.5	0.70	0.39 -0.38	0.00	N/A**	N/A**
		SERV-IIB	POS.	1.5	0.70	0.39 -0.38	0.00	N/A**	N/A**
1	2.931	STR-I	POS.	76.2	59.02	N/A* -18.71	0.00	N/A**	N/A**
		STR-IA	POS.	2.7	0.77	N/A* -0.67	0.00	N/A**	N/A**
		STR-II	POS.	2.7	0.77	N/A* -0.67	0.00	N/A**	N/A**
		STR-III	POS.	2.7	0.77	N/A* -0.67	0.00	N/A**	N/A**
		STR-IV	POS.	3.3	0.92	N/A* -0.80	0.00	N/A**	N/A**
		STR-V	POS.	2.7	0.77	N/A* -0.67	0.00	N/A**	N/A**
		SERV-I	POS.	2.2	0.61	0.55 -0.54	0.00	N/A**	N/A**
		SERV-II	POS.	2.2	0.61	0.55 -0.54	0.00	N/A**	N/A**
		SERV-IIA	POS.	2.2	0.61	0.55 -0.54	0.00	N/A**	N/A**
		SERV-IIB	POS.	2.2	0.61	0.55 -0.54	0.00	N/A**	N/A**
1	3.908	STR-I	POS.	93.8	54.46	N/A* -23.05	0.00	N/A**	N/A**
		STR-IA	POS.	3.4	0.66	N/A* -0.84	0.00	N/A**	N/A**
		STR-II	POS.	3.4	0.66	N/A* -0.84	0.00	N/A**	N/A**
		STR-III	POS.	3.4	0.66	N/A* -0.84	0.00	N/A**	N/A**
		STR-IV	POS.	4.1	0.79	N/A* -1.01	0.00	N/A**	N/A**
		STR-V	POS.	3.4	0.66	N/A* -0.84	0.00	N/A**	N/A**
		SERV-I	POS.	2.7	0.52	0.69 -0.67	0.00	N/A**	N/A**
		SERV-II	POS.	2.7	0.52	0.69 -0.67	0.00	N/A**	N/A**
		SERV-IIA	POS.	2.7	0.52	0.69 -0.67	0.00	N/A**	N/A**
		SERV-IIB	POS.	2.7	0.52	0.69 -0.67	0.00	N/A**	N/A**

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-I	POS.	108.9	50.50	N/A*	-26.77	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	120.7	46.55	N/A*	-29.66	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	129.2	42.59	N/A*	-31.73	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	134.2	38.63	N/A*	-32.98	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	136.0	34.68	N/A*	-33.41	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	134.4	30.72	N/A*	-33.02	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	134.4	30.72	N/A*	-33.02	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	136.0	-34.68	N/A*	-33.41	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	134.2	-38.63	N/A*	-32.98	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	129.2	-42.59	N/A*	-31.73	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	120.7	-46.55	N/A*	-29.66	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	108.9	-50.50	N/A*	-26.77	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	93.8	-54.46	N/A*	-23.05	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	76.2	-59.02	N/A*	-18.71	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	54.7	-63.67	N/A*	-13.43	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	29.9	-68.20	N/A*	-7.36	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	29.9	-68.20	N/A*	-6.09	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	29.3	-68.31	N/A*	-5.96	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-72.95	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	29.9	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	54.7	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	76.2	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	93.8	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	108.9	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	120.7	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	129.2	D	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-I	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	134.2	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	8.794	STR-I	POS.	152.4	136.0	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771L	STR-I	POS.	152.4	134.4	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771R	STR-I	POS.	152.4	134.4	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	10.748	STR-I	POS.	152.4	136.0	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	11.725	STR-I	POS.	152.4	134.2	D	
		STR-II	POS.	152.4	5.1	D	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	129.2	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	120.7	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	108.9	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	93.8	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	76.2	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	54.7	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	29.9	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	29.9	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	29.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_{+}^{*} (ksi)	Resistance Calculation **	Code Check ***
					R_h^{*}	R_b^{*}	$M_r(e)^{*}$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-10.8	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	8.5	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-11.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	8.7	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.213	16.92	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.213	16.92	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.213	16.95	1.213	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-33.4	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-33.4	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-33.4	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	-33.4	N/A	A

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Effects		Code Chk ***
					Local Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	F+** (ksi)	M+*** (kip-ft)		
1	1.000R	TOP	STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A					
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A					
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A					
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A					
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A					
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-33.4	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	136.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local	Governing	Local	Governing	Local	Governing	Stress	Moment			
					Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)			
1	18.542L	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.542R	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.565	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	19.542	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	136.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

- A. Insufficient flexural resistance
B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.
C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-II	POS.	1.000	95.0	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive

flexure in which the web satisfies the requirement of LRFD

Specifications Article 6.10.2.1.1

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	60.74	72.95	U	A
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	68.31	U	A
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	68.20	U	A
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	68.20	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	63.67	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	59.02	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	54.46	U	
		STR-IA	88.35	0.66	U	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	50.50	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	
		STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	46.55	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	42.59	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	38.63	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	34.68	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	30.72	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771L	STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	30.72	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-34.68	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-38.63	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-42.59	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-46.55	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-50.50	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	14.656	STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-54.46	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	
1	16.610	STR-I	88.35	-59.02	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-63.67	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-68.20	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-68.20	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-68.31	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-I	98.14	-72.95	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.688	48.3	1	0.000	STR-I
	Shear		0.830	58.3	1	0.000	STR-I
	Controlling		0.688	48.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	147.	5.	131.	1.085*	
1	10.748	STR-I	POS.	147.	5.	131.	1.085*	
1	11.725	STR-I	POS.	147.	5.	131.	1.085*	
1	12.702	STR-I	POS.	147.	5.	131.	1.085*	
1	13.679	STR-I	POS.	147.	5.	131.	1.085*	
1	14.656	STR-I	POS.	147.	5.	131.	1.085*	
1	15.633	STR-I	POS.	147.	5.	131.	1.085*	
1	16.610	STR-I	POS.	147.	5.	131.	1.085*	
1	17.588	STR-I	POS.	147.	5.	131.	1.085*	
1	18.542L	STR-I	POS.	147.	5.	131.	1.085*	
1	18.542R	STR-I	POS.	147.	5.	131.	1.085*	
1	18.565	STR-I	POS.	147.	5.	131.	1.085*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-32.1 8.2	0.688* 3.606	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-32.1 8.4	0.688* 3.528	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-32.1	0.688*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	71.86	0.830	C
1	0.977	STR-I	POS.	60.74	0.98	67.33	0.888	C
1	1.000L	STR-I	POS.	60.74	0.98	67.22	0.889	C
1	1.000R	STR-I	POS.	88.35	0.98	67.22	1.300	
1	1.954	STR-I	POS.	88.35	0.87	62.79	1.393	
1	2.931	STR-I	POS.	88.35	0.77	58.26	1.503	
1	3.908	STR-I	POS.	88.35	0.66	53.80	1.630	
1	4.885	STR-I	POS.	88.35	0.55	49.96	1.758	
1	5.863	STR-I	POS.	88.35	0.44	46.11	1.907	
1	6.840	STR-I	POS.	88.35	0.33	42.26	2.083	
1	7.817	STR-I	POS.	88.35	0.22	38.41	2.294	
1	8.794	STR-I	POS.	88.35	0.11	34.57	2.553	
1	9.771L	STR-I	POS.	88.35	0.00	30.72	2.876	
1	9.771R	STR-I	POS.	88.35	0.00	30.72	2.876	
1	10.748	STR-I	NEG.	88.35	-0.11	-34.57	2.553	
1	11.725	STR-I	NEG.	88.35	-0.22	-38.41	2.294	
1	12.702	STR-I	NEG.	88.35	-0.33	-42.26	2.083	
1	13.679	STR-I	NEG.	88.35	-0.44	-46.11	1.907	
1	14.656	STR-I	NEG.	88.35	-0.55	-49.96	1.758	
1	15.633	STR-I	NEG.	88.35	-0.66	-53.80	1.630	
1	16.610	STR-I	NEG.	88.35	-0.77	-58.26	1.503	
1	17.588	STR-I	NEG.	88.35	-0.87	-62.79	1.393	

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-67.22	1.300	
1	18.542R	STR-I	NEG.	98.14	-0.98	-67.22	1.445	
1	18.565	STR-I	NEG.	98.14	-0.98	-67.33	1.443	
1	19.542	STR-I	NEG.	98.14	-1.09	-71.86	1.350	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: Impact must be added for pier cap design

Madawaska Moderate Stringer CL-625-ONT Truck Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.688	48.3	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.258
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 0.69M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 18.54R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Moderate Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

Madawaska Moderate Stringer CL-625-ONT Truck Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate CL-625-ONT Truck Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	14
LOAD FACTORS.....	14
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	15
SYSTEM SETTINGS.....	15
SECTION PROPERTIES.....	16
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	17
ANALYSIS.....	19
LOAD FACTORS AND COMBINATIONS.....	19
LIVE LOADING SUMMARY.....	19
LOAD MODIFIER.....	19
RESISTANCE FACTORS.....	20
DEAD LOADS.....	20
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	20
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	20

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	21
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	21
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
BEAM WEIGHT ANALYSIS - REACTIONS.....	22
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	22
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	23
TOTAL DC1 ANALYSIS - REACTIONS.....	23
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 - ANALYSIS.....	26
UNFACTORED FLEXURAL STRESSES.....	26
USER INPUT LATERAL STRESSES.....	37
FACTORED ANALYSIS RESULTS.....	37
FACTORED LATERAL STRESSES.....	44
SPECIAL #1 - SPECIFICATION CHECKING.....	45
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	45
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	49
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	53
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	54
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	59
FLANGE LATERAL CAPACITY.....	64
NET SECTION FRACTURE CHECK.....	64
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	64
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	69
SHEAR CAPACITY.....	72
SPECIAL #1 - RATINGS W/O FWS.....	77
RATING FACTORS - SUMMARY.....	77
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	77
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	78
RATING FACTORS - SHEAR CAPACITY.....	79
SUMMARY - OVERALL REACTIONS.....	81
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	81
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	82
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	83
DL REACTIONS (UNFACTORED) PER GIRDER.....	83
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	83
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	84
DL REACTIONS (UNFACTORED) PER GIRDER.....	84

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	84
OVERALL RATING SUMMARY W/O FWS.....	85
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	85
BRIDGE LOAD RATINGS W/O FWS.....	85
SUMMARY - SPECIFICATION CHECKS.....	86
SPECIFICATION CHECK WARNINGS.....	86
SPECIFICATION CHECK FAILURES.....	87

MODERATE SECTION LOSS CL-625-ONT TRUCK OPERATING RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated       09/08/2016
*   Documentation       09/2016
*   License No.        332672
*
*****
*
*   Madawaska Moderate Stringer CL-625-ONT Truck Oper
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG           DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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```

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT

U:\\63738 - MaineDOT 2017 Ratings\\10 - Structures Tasks\\Madawaska Bridge\\Stringers\\5 - Analysis Run

!Madawaska Moderate Stringer CL-625-ONT Truck Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer CL-625-ONT Truck Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.25
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.25
FATIGUE DYN. LOAD ALLOW.      1.15          (default)
PA TRAFFIC FACTOR              1.20          (default)
REDISTRIBUTE NEG. MOMENTS     N            (default)
IMPORTANCE FACTOR              1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR              1.0          (default)
REDUNDANT LOAD PATH           R            (default)
OUTPUT POINTS                 2            (default)
P-82 DYN. LOAD ALLOW.         1.20          (default)
SKEW ANGLE DESIGNATION        P            (default)
CONSTANT LATERAL STRESS       0. ksi       (default)
DC1S PERCENTAGE               0.            (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft        (computed, if necessary)
STAGGERED DIAPHRAGMS          N            (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *            (computed, if necessary)
SDWK NO. OF DESIGN LANES      *            (computed, if necessary)
SDWK DEFLECTION DF            *            (computed, if necessary)

```

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.            5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.35
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	11.240 kip
AXLE SPACING	11.81 ft
AXLE LOAD	31.473 kip
AXLE SPACING	3.94 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	39.342 kip
AXLE SPACING	21.65 ft
AXLE LOAD	26.977 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO	* (computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y (default)
AASHTO/PENNDOT SPECS	P (default)
PRINT DIMENSION FILE	N (default)

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

Input Check Completed
- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT	Multiple Presence Adj. Factor	Live Load Code	Dynamic Load Allowance		Fatigue Dynamic Load Allowance	PA Traffic Factor	Redist. Neg. Moments	
168	1.000	E	1.250		1.150	1.200	NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V O A R	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

Madawaska Moderate Stringer CL-625-ONT Truck Oper
INPUT (cont.)

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240	11.810	31.473	3.940	31.473	21.650	39.342	21.650
	26.977	0.000						

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	153.4	6.171	N/A	1.24
1	0.977	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000L	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000R	N/A	N/A	152.4	5.772	N/A	1.46
1	1.954	N/A	N/A	152.4	5.772	N/A	1.46
1	2.931	N/A	N/A	152.4	5.772	N/A	1.46
1	3.908	N/A	N/A	152.4	5.772	N/A	1.46
1	4.885	N/A	N/A	152.4	5.772	N/A	1.46
1	5.863	N/A	N/A	152.4	5.772	N/A	1.46
1	6.840	N/A	N/A	152.4	5.772	N/A	1.46
1	7.817	N/A	N/A	152.4	5.772	N/A	1.46
1	8.794	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771L	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771R	N/A	N/A	152.4	5.772	N/A	1.46
1	10.748	N/A	N/A	152.4	5.772	N/A	1.46
1	11.725	N/A	N/A	152.4	5.772	N/A	1.46
1	12.702	N/A	N/A	152.4	5.772	N/A	1.46
1	13.679	N/A	N/A	152.4	5.772	N/A	1.46
1	14.656	N/A	N/A	152.4	5.772	N/A	1.46
1	15.633	N/A	N/A	152.4	5.772	N/A	1.46
1	16.610	N/A	N/A	152.4	5.772	N/A	1.46
1	17.588	N/A	N/A	152.4	5.772	N/A	1.46

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Moderate Stringer CL-625-ONT Truck Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated $N_i * N_d * N_r$	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.000L	17.7	41.24	0.0	0.00
1	1.000R	17.7	41.24	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00

Madawaska Moderate Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00
1	17.588	32.4	-38.52	0.0	0.00
1	18.542L	17.7	-41.24	0.0	0.00
1	18.542R	17.7	-41.24	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.000L	41.24	17.7	-1.51	12.0	0.054
1	1.000R	41.24	17.7	-1.51	12.0	0.054
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297

Madawaska Moderate Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.542L	1.51	12.0	-41.24	17.7	0.054
1	18.542R	1.51	12.0	-41.24	17.7	0.054
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	5.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.5	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.5	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	5.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
1	7.817	TOP	SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	8.794	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
		BOT	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.7	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	20.3	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.5	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	20.0	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	19.3	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.5	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	18.0	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	14.0	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.5	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	60.61	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.4	56.74	7.12	-9.02	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.0	56.65	7.27	-9.22	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.0	56.65	N/A*	-6.14	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.6	52.88	N/A*	-11.21	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.5	49.01	N/A*	-15.61	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	78.3	45.22	N/A*	-19.24	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	4.885	STR-I	POS.	90.9	41.92	N/A*	-22.34	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	100.8	38.63	N/A*	-24.75	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	107.8	35.33	N/A*	-26.48	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	32.03	N/A*	-27.53	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	113.5	28.74	N/A*	-27.89	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	112.2	25.44	N/A*	-27.57	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	112.2	25.44	N/A*	-27.57	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	113.5	-28.74	N/A*	-27.89	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-32.03	N/A*	-27.53	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	107.8	-35.33	N/A*	-26.48	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	100.8	-38.63	N/A*	-24.75	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	90.9	-41.92	N/A*	-22.34	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	78.3	-45.22	N/A*	-19.24	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.5	-49.01	N/A*	-15.61	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.6	-52.88	N/A*	-11.21	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	25.0	-56.65	N/A*	-6.14	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	25.0	-56.65	N/A*	-5.08	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.4	-56.74	N/A*	-4.97	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.61	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	25.0	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	45.6	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	63.5	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	78.3	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	90.9	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	100.8	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	107.8	D	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-I	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	112.1	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	8.794	STR-I	POS.	152.4	113.5	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771L	STR-I	POS.	152.4	112.2	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771R	STR-I	POS.	152.4	112.2	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	10.748	STR-I	POS.	152.4	113.5	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	11.725	STR-I	POS.	152.4	112.1	D	
		STR-II	POS.	152.4	5.1	D	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	107.8	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	100.8	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	90.9	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	78.3	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	63.5	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	45.6	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	25.0	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	25.0	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	24.4	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_{+}^{*} (ksi)	Resistance Calculation **	Code Check ***
					R_h^{*}	R_b^{*}	$M_r(e)^{*}$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-9.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	7.1	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-9.2	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	7.3	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.214	16.92	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.214	16.92	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.214	16.95	1.214	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	* Mr (kip-ft)				
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A
			STR-IA	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A
			STR-IA	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A
			STR-IA	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-23.4	B	63.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)		Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	* Mr (kip-ft)				
1	1.000R	TOP	STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.6	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H		-1.3	N/A	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e) (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-27.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.4	B	120.	-29.4	147.	E	147.	E	N/A	114.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A		Factored Effects		Code	
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***
1	18.542L	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.542R	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.565	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	19.542	TOP	STR-I	P	-29.4	B	120.	-29.4	B	147.	E	147.	E	N/A	114.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
flexure, so the top flange capacity is based on compression. However, the total
factored stress (F+) in the top flange is tensile. The user should verify the
acceptability of the section by comparing the top flange stress (F+) to the flexural
resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-II	POS.	1.000	95.0	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive

flexure in which the web satisfies the requirement of LRFD

Specifications Article 6.10.2.1.1

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	SHEAR CAPACITY		
				Maximum Factored Shear Vu (kips)	Stiffened/Unstiffened	Code Check*
1	0.000	STR-I	60.74	60.61	U	
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	56.74	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	56.65	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	56.65	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	52.88	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	49.01	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	45.22	U	
		STR-IA	88.35	0.66	U	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	41.92	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	
		STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	38.63	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	35.33	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	32.03	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	28.74	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	25.44	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771L	STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	25.44	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-28.74	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-32.03	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-35.33	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-38.63	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-41.92	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	14.656	STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-45.22	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	
1	16.610	STR-I	88.35	-49.01	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-52.88	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-56.65	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-56.65	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-56.74	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-I	98.14	-60.61	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.830	58.3	1	0.000	STR-I
	Shear		1.002	70.4	1	0.000	STR-I
	Controlling		0.830	58.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	147.	5.	108.	1.311*	
1	10.748	STR-I	POS.	147.	5.	108.	1.311*	
1	11.725	STR-I	POS.	147.	5.	108.	1.311*	
1	12.702	STR-I	POS.	147.	5.	108.	1.311*	
1	13.679	STR-I	POS.	147.	5.	108.	1.311*	
1	14.656	STR-I	POS.	147.	5.	108.	1.311*	
1	15.633	STR-I	POS.	147.	5.	108.	1.311*	
1	16.610	STR-I	POS.	147.	5.	108.	1.311*	
1	17.588	STR-I	POS.	147.	5.	108.	1.311*	
1	18.542L	STR-I	POS.	147.	5.	108.	1.311*	
1	18.542R	STR-I	POS.	147.	5.	108.	1.310*	
1	18.565	STR-I	POS.	147.	5.	108.	1.310*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-26.6 6.8	0.830* 4.354	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-26.6 7.0	0.830* 4.260	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-26.6	0.830*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	59.52	1.002	
1	0.977	STR-I	POS.	60.74	0.98	55.76	1.072	
1	1.000L	STR-I	POS.	60.74	0.98	55.67	1.073	
1	1.000R	STR-I	POS.	88.35	0.98	55.67	1.569	
1	1.954	STR-I	POS.	88.35	0.87	52.00	1.682	
1	2.931	STR-I	POS.	88.35	0.77	48.25	1.815	
1	3.908	STR-I	POS.	88.35	0.66	44.56	1.968	
1	4.885	STR-I	POS.	88.35	0.55	41.37	2.122	
1	5.863	STR-I	POS.	88.35	0.44	38.19	2.302	
1	6.840	STR-I	POS.	88.35	0.33	35.00	2.515	
1	7.817	STR-I	POS.	88.35	0.22	31.81	2.770	
1	8.794	STR-I	POS.	88.35	0.11	28.63	3.082	
1	9.771L	STR-I	POS.	88.35	0.00	25.44	3.473	
1	9.771R	STR-I	POS.	88.35	0.00	25.44	3.473	
1	10.748	STR-I	NEG.	88.35	-0.11	-28.63	3.082	
1	11.725	STR-I	NEG.	88.35	-0.22	-31.81	2.770	
1	12.702	STR-I	NEG.	88.35	-0.33	-35.00	2.515	
1	13.679	STR-I	NEG.	88.35	-0.44	-38.19	2.302	
1	14.656	STR-I	NEG.	88.35	-0.55	-41.37	2.122	
1	15.633	STR-I	NEG.	88.35	-0.66	-44.56	1.968	
1	16.610	STR-I	NEG.	88.35	-0.77	-48.25	1.815	
1	17.588	STR-I	NEG.	88.35	-0.87	-52.00	1.682	

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-55.67	1.569	
1	18.542R	STR-I	NEG.	98.14	-0.98	-55.67	1.745	
1	18.565	STR-I	NEG.	98.14	-0.98	-55.76	1.742	
1	19.542	STR-I	NEG.	98.14	-1.09	-59.52	1.631	

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		58.78	
2	SPECIAL #1	0.00		58.78	

Note: Impact must be added for pier cap design

 Madawaska Moderate Stringer CL-625-ONT Truck Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory Flexure	T	0.830	58.3	1	0.000	STR-I
Operating Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
INVENTORY Dist. Fact.	0.258
RATING Loc. (ft)	0.000
(IR) Limit State	STR-I
RF	0.83M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
OPERATING Dist. Fact.	---
RATING Loc. (ft)	---
(OR) Limit State	---
RF	---

Maximum Factored Flexural Resistance (kip-ft)	171.46	Span Length(ft) = 19.54
Location (ft)	18.54R	

Maximum Factored Shear Resistance (kips)	98.14
Location (ft)	18.54R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS
-----SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Moderate Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS (cont.)
-----SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD
RATING FACTORS - STRESS FLEXURAL CAPACITY

 Madawaska Moderate Stringer CL-625-ONT Truck Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate CL-625-ONT Truck Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	14
LOAD FACTORS.....	14
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	15
SYSTEM SETTINGS.....	15
SECTION PROPERTIES.....	16
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	17
ANALYSIS.....	19
LOAD FACTORS AND COMBINATIONS.....	19
LIVE LOADING SUMMARY.....	19
LOAD MODIFIER.....	19
RESISTANCE FACTORS.....	20
DEAD LOADS.....	20
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	20
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	20

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	21
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	21
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
BEAM WEIGHT ANALYSIS - REACTIONS.....	22
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	22
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	23
TOTAL DC1 ANALYSIS - REACTIONS.....	23
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 - ANALYSIS.....	26
UNFACTORED FLEXURAL STRESSES.....	26
USER INPUT LATERAL STRESSES.....	37
FACTORED ANALYSIS RESULTS.....	37
FACTORED LATERAL STRESSES.....	44
SPECIAL #1 - SPECIFICATION CHECKING.....	45
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	45
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	49
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	53
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	54
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	59
FLANGE LATERAL CAPACITY.....	64
NET SECTION FRACTURE CHECK.....	64
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	64
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	69
SHEAR CAPACITY.....	72
SPECIAL #1 - RATINGS W/O FWS.....	77
RATING FACTORS - SUMMARY.....	77
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	77
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	78
RATING FACTORS - SHEAR CAPACITY.....	79
SUMMARY - OVERALL REACTIONS.....	81
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	81
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	82
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	83
DL REACTIONS (UNFACTORED) PER GIRDER.....	83
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	83
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	84
DL REACTIONS (UNFACTORED) PER GIRDER.....	84

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	84
OVERALL RATING SUMMARY W/O FWS.....	85
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	85
BRIDGE LOAD RATINGS W/O FWS.....	85
SUMMARY - SPECIFICATION CHECKS.....	86
SPECIFICATION CHECK WARNINGS.....	86
SPECIFICATION CHECK FAILURES.....	87

MODERATE SECTION LOSS
CL-625-ONT LANE LOAD
INVENTORY RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated       09/08/2016
*   Documentation       09/2016
*   License No.        332672
*
*****
*
*   Madawaska Moderate Stringer CL-625-ONT Lane Inv
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG           DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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*****

```

Madawaska Moderate Stringer CL-625-ONT Lane Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Moderate Stringer CL-625-ONT Lane Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer CL-625-ONT Lane Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.0
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Moderate Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.0	
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Moderate Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.            5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.63
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE            0 ft
END SPAN NUMBER          1
END DISTANCE              19.541666666 ft
START MAGNITUDE           0.047 kip/ft
END MAGNITUDE             0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER        1
AXLE EFFECT               N
LANE LOAD                 0.617 kip/ft
PERCENT INCREASE         0

COMMAND: SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 8.992 kip
AXLE SPACING              11.81 ft
AXLE LOAD                 25.179 kip
AXLE SPACING              3.94 ft
AXLE LOAD                 25.179 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 31.473 kip
AXLE SPACING              21.65 ft
AXLE LOAD                 21.582 kip
AXLE SPACING              0 ft

COMMAND: BRP
START SPAN NUMBER        1
START SPAN DISTANCE       0 ft
END SPAN NUMBER          1
END SPAN DISTANCE        19.5417 ft
BRACE SPACING            9.77 ft

COMMAND: OIN
INPUT FILE ECHO           1
INPUT COMMANDS            1
INPUT SUMMARY             1
    
```

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO	* (computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y (default)
AASHTO/PENNDOT SPECS	P (default)
PRINT DIMENSION FILE	N (default)

Madawaska Moderate Stringer CL-625-ONT Lane Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

Input Check Completed
- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT	Multiple Presence Adj. Factor	Live Load Code	Dynamic Load Allowance		Fatigue Dynamic Load Allowance	PA Traffic Factor	Redist. Neg. Moments	
168	1.000	E	1.000		1.150	1.200	NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv

INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V O A R	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992	11.810	25.179	3.940	25.179	21.650	31.473	21.650
	21.582	0.000						

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

BRACE POINTS				

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS	

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer CL-625-ONT Lane Inv

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Top of Beam (in ³)	Section Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	153.4	6.171	N/A	1.24
1	0.977	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000L	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000R	N/A	N/A	152.4	5.772	N/A	1.46
1	1.954	N/A	N/A	152.4	5.772	N/A	1.46
1	2.931	N/A	N/A	152.4	5.772	N/A	1.46
1	3.908	N/A	N/A	152.4	5.772	N/A	1.46
1	4.885	N/A	N/A	152.4	5.772	N/A	1.46
1	5.863	N/A	N/A	152.4	5.772	N/A	1.46
1	6.840	N/A	N/A	152.4	5.772	N/A	1.46
1	7.817	N/A	N/A	152.4	5.772	N/A	1.46
1	8.794	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771L	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771R	N/A	N/A	152.4	5.772	N/A	1.46
1	10.748	N/A	N/A	152.4	5.772	N/A	1.46
1	11.725	N/A	N/A	152.4	5.772	N/A	1.46
1	12.702	N/A	N/A	152.4	5.772	N/A	1.46
1	13.679	N/A	N/A	152.4	5.772	N/A	1.46
1	14.656	N/A	N/A	152.4	5.772	N/A	1.46
1	15.633	N/A	N/A	152.4	5.772	N/A	1.46
1	16.610	N/A	N/A	152.4	5.772	N/A	1.46
1	17.588	N/A	N/A	152.4	5.772	N/A	1.46

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SECTION PROPERTIES (cont.)

 ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Moderate Stringer CL-625-ONT Lane Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.000L	12.8	29.64	0.0	0.00
1	1.000R	12.8	29.64	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00

Madawaska Moderate Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00
1	17.588	23.5	-27.55	0.0	0.00
1	18.542L	12.8	-29.64	0.0	0.00
1	18.542R	12.8	-29.64	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.000L	29.65	12.7	-0.98	7.8	0.040
1	1.000R	29.65	12.7	-0.98	7.8	0.040
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221

Madawaska Moderate Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.542L	0.98	7.8	-29.65	12.8	0.040
1	18.542R	0.98	7.8	-29.65	12.8	0.040
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	8.794	TOP	SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
		BOT	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	12.702	TOP	SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	52.98	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.39	6.25	-7.92	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	21.9	49.31	6.39	-8.10	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	21.9	49.31	N/A*	-5.39	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.2	45.84	N/A*	-9.86	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	56.0	42.31	N/A*	-13.77	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	69.2	38.86	N/A*	-17.00	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	4.885	STR-I	POS.	80.5	35.84	N/A*	-19.77	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	89.3	32.84	N/A*	-21.93	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	95.7	29.87	N/A*	-23.51	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	99.7	26.93	N/A*	-24.48	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	101.2	24.02	N/A*	-24.86	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	100.3	21.13	N/A*	-24.65	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	100.3	21.13	N/A*	-24.65	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	101.2	-24.02	N/A*	-24.86	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	99.7	-26.93	N/A*	-24.48	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	95.7	-29.87	N/A*	-23.51	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	89.3	-32.84	N/A*	-21.93	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	80.5	-35.84	N/A*	-19.77	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	69.2	-38.86	N/A*	-17.00	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	56.0	-42.31	N/A*	-13.77	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.2	-45.84	N/A*	-9.86	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	21.9	-49.31	N/A*	-5.39	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	21.9	-49.31	N/A*	-4.46	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.39	N/A*	-4.36	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-52.98	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	21.9	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	40.2	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	56.0	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	69.2	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	80.5	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	89.3	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	95.7	D	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	99.7	D	
		STR-IA	POS.	152.4	5.1	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
1	8.794	STR-I	POS.	152.4	101.2	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
1	9.771L	STR-I	POS.	152.4	100.3	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
1	9.771R	STR-I	POS.	152.4	100.3	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
1	10.748	STR-I	POS.	152.4	101.2	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
1	11.725	STR-I	POS.	152.4	99.7	D	
		STR-IA	POS.	152.4	5.1	D	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	95.7	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	89.3	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	80.5	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	69.2	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	56.0	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	40.2	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	21.9	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	21.9	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	21.5	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.9	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	6.3	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-8.1	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	6.4	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress
due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.225	16.92	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.225	16.92	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.225	16.95	1.225	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-24.9	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-24.9	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-24.9	N/A	A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	-1.3	N/A	
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	-24.9	N/A	A

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Effects		Code Chk ***
					Local Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)		
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-24.9	N/A	A
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	101.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local	*	Governing	*	Local	*	Governing	*	Stress	Moment	
					(ksi)		(kip-ft)	(ksi)	(kip-ft)	(ksi)	(kip-ft)	(ksi)	(kip-ft)		
1	18.542L	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	101.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.542R	TOP	STR-I	P	-29.7	B	121.	-29.7	B	148.	E	148.	E	N/A	101.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.565	TOP	STR-I	P	-29.7	B	121.	-29.7	B	148.	E	148.	E	N/A	101.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	19.542	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	101.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

- ** Legend of General Notes:
- Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr
 - F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity
 - M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1
If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity
 - w = Value for F+ or M+ includes lateral load effects

- *** Legend of Code Check:
- A. Insufficient flexural resistance
 - B. Based on the total stress in the bottom flange, this section is analyzed for positive
flexure, so the top flange capacity is based on compression. However, the total
factored stress (F+) in the top flange is tensile. The user should verify the
acceptability of the section by comparing the top flange stress (F+) to the flexural
resistance (Fr) of the top flange in negative flexure.
 - C. The unbraced range containing this analysis point varies in depth and has a flange
transition more than one foot away from the ends of the unbraced range.

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.977	BOT	SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	4.885	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	16.610	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-II	POS.	1.000	95.0	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive

flexure in which the web satisfies the requirement of LRFD

Specifications Article 6.10.2.1.1

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY			Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	
1	0.000	STR-I	60.74	52.98	U	
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	49.39	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	49.31	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	49.31	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	45.84	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	42.31	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	38.86	U	
		STR-IA	88.35	0.66	U	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	35.84	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	
		STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	32.84	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	29.87	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	26.93	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	24.02	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	21.13	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771L	STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	21.13	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-24.02	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-26.93	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-29.87	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-32.84	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-35.84	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	14.656	STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-38.86	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	
1	16.610	STR-I	88.35	-42.31	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-45.84	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-49.31	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-49.31	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-49.39	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-I	98.14	-52.98	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.937	52.7	1	0.000	STR-I
	Shear		1.149	64.6	1	0.000	STR-I
	Controlling		0.937	52.7	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	149.	5.	96.	1.494*	
1	10.748	STR-I	POS.	149.	5.	96.	1.494*	
1	11.725	STR-I	POS.	149.	5.	96.	1.494*	
1	12.702	STR-I	POS.	149.	5.	96.	1.494*	
1	13.679	STR-I	POS.	149.	5.	96.	1.494*	
1	14.656	STR-I	POS.	149.	5.	96.	1.494*	
1	15.633	STR-I	POS.	149.	5.	96.	1.494*	
1	16.610	STR-I	POS.	149.	5.	96.	1.494*	
1	17.588	STR-I	POS.	149.	5.	96.	1.494*	
1	18.542L	STR-I	POS.	149.	5.	96.	1.494*	
1	18.542R	STR-I	POS.	148.	5.	96.	1.493*	
1	18.565	STR-I	POS.	148.	5.	96.	1.493*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-23.6 6.0	0.937* 4.987	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-23.6 6.1	0.937* 4.879	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-23.6	0.937*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	51.89	1.149	
1	0.977	STR-I	POS.	60.74	0.98	48.41	1.234	
1	1.000L	STR-I	POS.	60.74	0.98	48.33	1.236	
1	1.000R	STR-I	POS.	88.35	0.98	48.33	1.808	
1	1.954	STR-I	POS.	88.35	0.87	44.96	1.945	
1	2.931	STR-I	POS.	88.35	0.77	41.54	2.108	
1	3.908	STR-I	POS.	88.35	0.66	38.21	2.295	
1	4.885	STR-I	POS.	88.35	0.55	35.29	2.488	
1	5.863	STR-I	POS.	88.35	0.44	32.40	2.713	
1	6.840	STR-I	POS.	88.35	0.33	29.54	2.980	
1	7.817	STR-I	POS.	88.35	0.22	26.71	3.300	
1	8.794	STR-I	POS.	88.35	0.11	23.91	3.691	
1	9.771L	STR-I	POS.	88.35	0.00	21.13	4.180	
1	9.771R	STR-I	POS.	88.35	0.00	21.13	4.180	
1	10.748	STR-I	NEG.	88.35	-0.11	-23.91	3.691	
1	11.725	STR-I	NEG.	88.35	-0.22	-26.71	3.300	
1	12.702	STR-I	NEG.	88.35	-0.33	-29.54	2.980	
1	13.679	STR-I	NEG.	88.35	-0.44	-32.40	2.713	
1	14.656	STR-I	NEG.	88.35	-0.55	-35.29	2.488	
1	15.633	STR-I	NEG.	88.35	-0.66	-38.21	2.295	
1	16.610	STR-I	NEG.	88.35	-0.77	-41.54	2.108	
1	17.588	STR-I	NEG.	88.35	-0.87	-44.96	1.945	

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-48.33	1.808	
1	18.542R	STR-I	NEG.	98.14	-0.98	-48.33	2.010	
1	18.565	STR-I	NEG.	98.14	-0.98	-48.41	2.007	
1	19.542	STR-I	NEG.	98.14	-1.09	-51.89	1.870	

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	47.03
2	SPECIAL #1	0.00	47.03

Note: Impact must be added for pier cap design

Madawaska Moderate Stringer CL-625-ONT Lane Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	0.937	52.7	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.258
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 0.94M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 18.54R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Moderate Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

 Madawaska Moderate Stringer CL-625-ONT Lane Inv

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate CL-625-ONT Lane Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	14
LOAD FACTORS.....	14
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	15
SYSTEM SETTINGS.....	15
SECTION PROPERTIES.....	16
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	17
ANALYSIS.....	19
LOAD FACTORS AND COMBINATIONS.....	19
LIVE LOADING SUMMARY.....	19
LOAD MODIFIER.....	19
RESISTANCE FACTORS.....	20
DEAD LOADS.....	20
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	20
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	20

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	21
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	21
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
BEAM WEIGHT ANALYSIS - REACTIONS.....	22
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	22
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	23
TOTAL DC1 ANALYSIS - REACTIONS.....	23
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 - ANALYSIS.....	26
UNFACTORED FLEXURAL STRESSES.....	26
USER INPUT LATERAL STRESSES.....	37
FACTORED ANALYSIS RESULTS.....	37
FACTORED LATERAL STRESSES.....	44
SPECIAL #1 - SPECIFICATION CHECKING.....	45
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	45
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	49
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	53
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	54
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	59
FLANGE LATERAL CAPACITY.....	64
NET SECTION FRACTURE CHECK.....	64
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	64
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	69
SHEAR CAPACITY.....	72
SPECIAL #1 - RATINGS W/O FWS.....	77
RATING FACTORS - SUMMARY.....	77
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	77
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	78
RATING FACTORS - SHEAR CAPACITY.....	79
SUMMARY - OVERALL REACTIONS.....	81
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	81
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	82
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	83
DL REACTIONS (UNFACTORED) PER GIRDER.....	83
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	83
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	84
DL REACTIONS (UNFACTORED) PER GIRDER.....	84

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	84
OVERALL RATING SUMMARY W/O FWS.....	85
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	85
BRIDGE LOAD RATINGS W/O FWS.....	85
SUMMARY - SPECIFICATION CHECKS.....	86
SPECIFICATION CHECK WARNINGS.....	86
SPECIFICATION CHECK FAILURES.....	87

MODERATE SECTION LOSS
CL-625-ONT LANE LOAD
OPERATING RATING

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*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Moderate Stringer CL-625-ONT Lane Oper
*
* MADE BY: SMZ          DATE: 09/22/17
*
* CHECKED BY: EMG       DATE: 09/29/17
*
* BACKCHECKED BY: SMZ   DATE: 09/29/17
*
*****
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Madawaska Moderate Stringer CL-625-ONT Lane Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Moderate Stringer CL-625-ONT Lane Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer CL-625-ONT Lane Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.00
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Moderate Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.00	
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Moderate Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Moderate Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

Madawaska Moderate Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.            5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.35
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

Madawaska Moderate Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.617 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	8.992 kip
AXLE SPACING	11.81 ft
AXLE LOAD	25.179 kip
AXLE SPACING	3.94 ft
AXLE LOAD	25.179 kip
AXLE SPACING	21.65 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	21.582 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO	* (computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y (default)
AASHTO/PENNDOT SPECS	P (default)
PRINT DIMENSION FILE	N (default)

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
 The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT	Multiple Presence Adj. Factor	Live Load Code	Dynamic Load Allowance		Fatigue Dynamic Load Allowance	PA Traffic Factor	Redist. Neg. Moments	
168	1.000	E	1.000		1.150	1.200	NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V O A R	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

Madawaska Moderate Stringer CL-625-ONT Lane Oper
INPUT (cont.)

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992	11.810	25.179	3.940	25.179	21.650	31.473	21.650
	21.582	0.000						

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

BRACE POINTS -----				
Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS -----	
Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer CL-625-ONT Lane Oper

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	153.4	6.171	N/A	1.24
1	0.977	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000L	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000R	N/A	N/A	152.4	5.772	N/A	1.46
1	1.954	N/A	N/A	152.4	5.772	N/A	1.46
1	2.931	N/A	N/A	152.4	5.772	N/A	1.46
1	3.908	N/A	N/A	152.4	5.772	N/A	1.46
1	4.885	N/A	N/A	152.4	5.772	N/A	1.46
1	5.863	N/A	N/A	152.4	5.772	N/A	1.46
1	6.840	N/A	N/A	152.4	5.772	N/A	1.46
1	7.817	N/A	N/A	152.4	5.772	N/A	1.46
1	8.794	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771L	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771R	N/A	N/A	152.4	5.772	N/A	1.46
1	10.748	N/A	N/A	152.4	5.772	N/A	1.46
1	11.725	N/A	N/A	152.4	5.772	N/A	1.46
1	12.702	N/A	N/A	152.4	5.772	N/A	1.46
1	13.679	N/A	N/A	152.4	5.772	N/A	1.46
1	14.656	N/A	N/A	152.4	5.772	N/A	1.46
1	15.633	N/A	N/A	152.4	5.772	N/A	1.46
1	16.610	N/A	N/A	152.4	5.772	N/A	1.46
1	17.588	N/A	N/A	152.4	5.772	N/A	1.46

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SECTION PROPERTIES (cont.)

 ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

Madawaska Moderate Stringer CL-625-ONT Lane Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.000L	12.8	29.64	0.0	0.00
1	1.000R	12.8	29.64	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00

Madawaska Moderate Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00
1	17.588	23.5	-27.55	0.0	0.00
1	18.542L	12.8	-29.64	0.0	0.00
1	18.542R	12.8	-29.64	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.000L	29.65	12.7	-0.98	7.8	0.040
1	1.000R	29.65	12.7	-0.98	7.8	0.040
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221

Madawaska Moderate Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.542L	0.98	7.8	-29.65	12.8	0.040
1	18.542R	0.98	7.8	-29.65	12.8	0.040
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.5	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	8.794	TOP	SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
		BOT	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.7	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.1	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.8	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.3	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.8	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
		TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	44.07	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	18.0	41.08	5.23	-6.63	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	18.4	41.01	5.34	-6.77	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	18.4	41.01	N/A*	-4.51	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	33.6	38.11	N/A*	-8.25	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	46.9	35.17	N/A*	-11.52	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	57.9	32.30	N/A*	-14.23	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-I	POS.	67.3	29.77	N/A*	-16.54	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	74.7	27.27	N/A*	-18.36	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	80.1	24.79	N/A*	-19.67	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	83.4	22.34	N/A*	-20.49	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	84.7	19.91	N/A*	-20.82	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	84.0	17.50	N/A*	-20.64	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	84.0	17.50	N/A*	-20.64	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	84.7	-19.91	N/A*	-20.82	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	83.4	-22.34	N/A*	-20.49	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	80.1	-24.79	N/A*	-19.67	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	74.7	-27.27	N/A*	-18.36	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	67.3	-29.77	N/A*	-16.54	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	57.9	-32.30	N/A*	-14.23	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	46.9	-35.17	N/A*	-11.52	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	33.6	-38.11	N/A*	-8.25	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	18.4	-41.01	N/A*	-4.51	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	18.4	-41.01	N/A*	-3.73	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00		N/A**	N/A**	
1	18.565	STR-I	POS.	18.0	-41.08	N/A*	-3.65	0.00		N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00		N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-44.07	N/A*	0.00	0.00		N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00		N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)

Dt = Total depth of the composite section (A6.10.7.1.2)

Rh = Hybrid factor (A6.10.1.10.1)

Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)

Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)

Dc = Total depth of the web in compression, per Appendix D6.3.1

Myt = Yield moment to the top flange, per Appendix D6.2

Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1

B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A A6.1.2)

G. Continuously braced compression flange governs (App A A6.1.3)

H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	18.4	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	33.6	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	46.9	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	57.9	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	67.3	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	74.7	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	80.1	D	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-I	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	83.4	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	8.794	STR-I	POS.	152.4	84.7	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771L	STR-I	POS.	152.4	84.0	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771R	STR-I	POS.	152.4	84.0	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	10.748	STR-I	POS.	152.4	84.7	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	11.725	STR-I	POS.	152.4	83.4	D	
		STR-II	POS.	152.4	5.1	D	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	80.1	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	74.7	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	67.3	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	57.9	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	46.9	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	33.6	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	18.4	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	18.4	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	18.0	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_{+}^{*} (ksi)	Resistance Calculation **	Code Check ***
					R_h^{*}	R_b^{*}	$M_r(e)^{*}$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-6.6	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	5.2	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-6.8	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.3	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stressdue to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or
A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.226	16.92	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.226	16.92	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.226	16.95	1.226	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-20.8	N/A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.6	N/A
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-20.8	N/A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.6	N/A
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-20.8	N/A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.6	N/A
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	H	-20.8	N/A

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Fr (ksi)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-20.8	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.7	B	121.	-29.7	149.	E	149.	E	N/A	85.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Effects		Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	Governing Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	Governing Mr (kip-ft)	Flexural Stress F+ (ksi)	Lateral Moment M+ (kip-ft)	
1	18.542L	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
1	18.542R	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
1	18.565	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
1	19.542	TOP	STR-I	P	-29.7	B	121.	-29.7	B	149.	E	85.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	-1.3	N/A

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	6.840	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	11.725	BOT	SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	17.588	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	60.74	44.07	U	
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	41.08	U	
		STR-IA	60.74	0.98	U	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.977	STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	41.01	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	41.01	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	38.11	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	35.17	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	32.30	U	
		STR-IA	88.35	0.66	U	
		STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	29.77	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	4.885	STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	27.27	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	24.79	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	22.34	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	19.91	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	17.50	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	17.50	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771R	STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-19.91	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-22.34	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-24.79	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-27.27	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-29.77	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	
		STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-32.30	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	88.35	-35.17	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-38.11	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-41.01	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-41.01	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-41.08	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-44.07	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.132	63.6	1	0.000	STR-I
	Shear		1.388	78.0	1	0.000	STR-I
	Controlling		1.132	63.6	1	0.000	STR-I

Operating Not Applicable

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	149.	5.	79.	1.805*	
1	10.748	STR-I	POS.	149.	5.	79.	1.805*	
1	11.725	STR-I	POS.	149.	5.	79.	1.805*	
1	12.702	STR-I	POS.	149.	5.	79.	1.805*	
1	13.679	STR-I	POS.	149.	5.	79.	1.805*	
1	14.656	STR-I	POS.	149.	5.	79.	1.805*	
1	15.633	STR-I	POS.	149.	5.	79.	1.805*	
1	16.610	STR-I	POS.	149.	5.	79.	1.805*	
1	17.588	STR-I	POS.	149.	5.	79.	1.805*	
1	18.542L	STR-I	POS.	149.	5.	79.	1.805*	
1	18.542R	STR-I	POS.	149.	5.	79.	1.804*	
1	18.565	STR-I	POS.	149.	5.	79.	1.804*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
		BOT	STR-I	POS.	30.0	0.3	4.9	6.021	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
		BOT	STR-I	POS.	30.0	0.3	5.0	5.891	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-19.5	1.132*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	42.97	1.388	
1	0.977	STR-I	POS.	60.74	0.98	40.09	1.490	
1	1.000L	STR-I	POS.	60.74	0.98	40.03	1.493	
1	1.000R	STR-I	POS.	88.35	0.98	40.03	2.183	
1	1.954	STR-I	POS.	88.35	0.87	37.24	2.349	
1	2.931	STR-I	POS.	88.35	0.77	34.41	2.545	
1	3.908	STR-I	POS.	88.35	0.66	31.65	2.771	
1	4.885	STR-I	POS.	88.35	0.55	29.23	3.004	
1	5.863	STR-I	POS.	88.35	0.44	26.83	3.276	
1	6.840	STR-I	POS.	88.35	0.33	24.46	3.598	
1	7.817	STR-I	POS.	88.35	0.22	22.12	3.984	
1	8.794	STR-I	POS.	88.35	0.11	19.80	4.457	
1	9.771L	STR-I	POS.	88.35	0.00	17.50	5.047	
1	9.771R	STR-I	POS.	88.35	0.00	17.50	5.047	
1	10.748	STR-I	NEG.	88.35	-0.11	-19.80	4.457	
1	11.725	STR-I	NEG.	88.35	-0.22	-22.12	3.984	
1	12.702	STR-I	NEG.	88.35	-0.33	-24.46	3.598	
1	13.679	STR-I	NEG.	88.35	-0.44	-26.83	3.276	
1	14.656	STR-I	NEG.	88.35	-0.55	-29.23	3.004	
1	15.633	STR-I	NEG.	88.35	-0.66	-31.65	2.771	
1	16.610	STR-I	NEG.	88.35	-0.77	-34.41	2.545	
1	17.588	STR-I	NEG.	88.35	-0.87	-37.24	2.349	

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-40.03	2.183	
1	18.542R	STR-I	NEG.	98.14	-0.98	-40.03	2.427	
1	18.565	STR-I	NEG.	98.14	-0.98	-40.09	2.423	
1	19.542	STR-I	NEG.	98.14	-1.09	-42.97	2.258	

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		47.03	
2	SPECIAL #1	0.00		47.03	

Note: Impact must be added for pier cap design

Madawaska Moderate Stringer CL-625-ONT Lane Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	1.132	63.6	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches					
	SPECIAL #1					
INVENTORY	Dist. Fact.	0.258				
RATING	Loc. (ft)	0.000				
(IR)	Limit State	STR-I				
	RF	1.13M				
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches					
	SPECIAL #1					
OPERATING	Dist. Fact.	---				
RATING	Loc. (ft)	---				
(OR)	Limit State	---				
	RF	---				

Maximum Factored Flexural Resistance (kip-ft) 171.46 Span Length(ft) = 19.54
 Location (ft) 18.54R

Maximum Factored Shear Resistance (kips) 98.14
 Location (ft) 18.54R

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

ECONOMIC FEASIBILITY CHECKS

Madawaska Moderate Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

 Madawaska Moderate Stringer CL-625-ONT Lane Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate CL-625-ONT Lane Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	12
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	13
PLATE GIRDER PROPERTIES, PART 2 of 2.....	13
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	14
SLAB PROPERTIES, PART 2 OF 2.....	14
LOAD FACTORS.....	14
DISTRIBUTED LOADS (DC1).....	14
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	15
SYSTEM SETTINGS.....	15
SECTION PROPERTIES.....	16
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	16
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	17
ANALYSIS.....	19
LOAD FACTORS AND COMBINATIONS.....	19
LIVE LOADING SUMMARY.....	19
LOAD MODIFIER.....	19
RESISTANCE FACTORS.....	20
DEAD LOADS.....	20
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	20
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	20

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	21
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	21
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	21
BEAM WEIGHT ANALYSIS - REACTIONS.....	22
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	22
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	23
TOTAL DC1 ANALYSIS - REACTIONS.....	23
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	23
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	24
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #1 - ANALYSIS.....	26
UNFACTORED FLEXURAL STRESSES.....	26
USER INPUT LATERAL STRESSES.....	37
FACTORED ANALYSIS RESULTS.....	37
FACTORED LATERAL STRESSES.....	44
SPECIAL #1 - SPECIFICATION CHECKING.....	45
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	45
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	49
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	53
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	54
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	59
FLANGE LATERAL CAPACITY.....	64
NET SECTION FRACTURE CHECK.....	64
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	64
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	69
SHEAR CAPACITY.....	71
SPECIAL #1 - RATINGS W/O FWS.....	76
RATING FACTORS - SUMMARY.....	76
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	76
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	77
RATING FACTORS - SHEAR CAPACITY.....	78
SUMMARY - OVERALL REACTIONS.....	80
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	80
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	81
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	82
DL REACTIONS (UNFACTORED) PER GIRDER.....	82
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	82
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	83
DL REACTIONS (UNFACTORED) PER GIRDER.....	83

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	83
OVERALL RATING SUMMARY W/O FWS.....	84
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	84
BRIDGE LOAD RATINGS W/O FWS.....	84
SUMMARY - SPECIFICATION CHECKS.....	85
SPECIFICATION CHECK WARNINGS.....	85
SPECIFICATION CHECK FAILURES.....	86

MODERATE SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 1-4

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Moderate Stringer MainedOT Trucks 1-4
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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```

Madawaska Moderate Stringer MaineDOT Trucks 1-4
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Moderate Stringer MaineDOT Trucks 1-4
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer MaineDOT Trucks 1-4
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,20,4,20,20,16.7,4,16.7,4,16.6,0
SLL 2,N,0,0
SAL 2,10,10,16.6,4,16.7,4,16.7,10,17,20.333,17,0
SLL 3,N,0,0
SAL 3,10,10,16.6,4,16.7,4,16.7,12,14,4,14,0
SLL 4,N,0,0
SAL 4,10,10,16.1,10,24.2,10,18.9,4,18.8,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0        (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.33      (default)
FATIGUE DYN. LOAD ALLOW.       1.15      (default)
PA TRAFFIC FACTOR              1.20      (default)
REDISTRIBUTE NEG. MOMENTS      N         (default)
IMPORTANCE FACTOR              1.0        (default)
DUCTILITY FACTOR               1.0        (default)
REDUNDANCY FACTOR              1.0        (default)
REDUNDANT LOAD PATH            R         (default)
OUTPUT POINTS                  2         (default)
P-82 DYN. LOAD ALLOW.          1.20      (default)
SKEW ANGLE DESIGNATION        P         (default)
CONSTANT LATERAL STRESS        0. ksi   (default)
DC1S PERCENTAGE                0.        (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
    %WARNING - <GEO>:
        Real value out of range
        The value entered for BEAM/STRINGER SPACING is
        less than the lower range limit.
        Value Entered: 2.583
        Valid values are between 3. and 18.
DECK OVERHANG                  * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS          N         (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *         (computed, if necessary)
SDWK NO. OF DESIGN LANES      *         (computed, if necessary)
SDWK DEFLECTION DF            *         (computed, if necessary)
    
```

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Moderate Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.           5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.45
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE           0 ft
END SPAN NUMBER          1
END DISTANCE             19.541666666 ft
START MAGNITUDE          0.047 kip/ft
END MAGNITUDE            0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER        1
AXLE EFFECT              N
LANE LOAD                 0 kip/ft
PERCENT INCREASE         0

COMMAND: SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 10 kip
AXLE SPACING              10 ft
AXLE LOAD                 20 kip
AXLE SPACING              4 ft
AXLE LOAD                 20 kip
AXLE SPACING              20 ft
AXLE LOAD                 16.7 kip
AXLE SPACING              4 ft
AXLE LOAD                 16.7 kip
AXLE SPACING              4 ft
AXLE LOAD                 16.6 kip
AXLE SPACING              0 ft

COMMAND: SLL
SPECIAL LL NUMBER        2
AXLE EFFECT              N
LANE LOAD                 0 kip/ft
PERCENT INCREASE         0
    
```

Madawaska Moderate Stringer MaineDOT Trucks 1-4
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SAL

SPECIAL LL NUMBER	2
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	16.6 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	10 ft
AXLE LOAD	17 kip
AXLE SPACING	20.333 ft
AXLE LOAD	17 kip
AXLE SPACING	0 ft

COMMAND: SLL

SPECIAL LL NUMBER	3
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	3
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	16.6 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	12 ft
AXLE LOAD	14 kip
AXLE SPACING	4 ft
AXLE LOAD	14 kip
AXLE SPACING	0 ft

Madawaska Moderate Stringer MaineDOT Trucks 1-4
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLL
SPECIAL LL NUMBER 4
AXLE EFFECT N
LANE LOAD 0 kip/ft
PERCENT INCREASE 0

COMMAND: SAL
SPECIAL LL NUMBER 4
AXLE LOAD 10 kip
AXLE SPACING 10 ft
AXLE LOAD 16.1 kip
AXLE SPACING 10 ft
AXLE LOAD 24.2 kip
AXLE SPACING 10 ft
AXLE LOAD 18.9 kip
AXLE SPACING 4 ft
AXLE LOAD 18.8 kip
AXLE SPACING 0 ft

COMMAND: BRP
START SPAN NUMBER 1
START SPAN DISTANCE 0 ft
END SPAN NUMBER 1
END SPAN DISTANCE 19.5417 ft
BRACE SPACING 9.77 ft

COMMAND: OIN
INPUT FILE ECHO 1
INPUT COMMANDS 1
INPUT SUMMARY 1

COMMAND: OAN
POINTS OF CONTRAFLEXURE 0
COMPACTNESS CHK REDIST. 0
LOAD MODIFIERS 1
DEAD LOADS 1
DISTRIBUTION FACTORS 1
DEAD LOAD EFFECTS 1
DEAD LOAD REACTIONS 1
STAGING ANALYSIS 0
LIVE LOAD EFFECTS 1
LIVE LOAD REACTIONS 1
HS20 EFFECTS & REACTIONS 0
H20 EFFECTS & REACTIONS 0
FATIGUE EFFECTS & REACT. 0
FACTORED EFFECTS 1
FACTORED REACTIONS 0
SUMMARY-OVERALL REACTIONS 1

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*	(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y	(default)
AASHTO/PENNDOT SPECS	P	(default)
PRINT DIMENSION FILE	N	(default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

Madawaska Moderate Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V O A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Moderate Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor								
Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V	
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000	
Load Factor								
Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Madawaska Moderate Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	20.000	4.000	20.000	20.000	16.700	4.000
	16.700	4.000	16.600	0.000				
2	10.000	10.000	16.600	4.000	16.700	4.000	16.700	10.000
	17.000	20.333	17.000	0.000				
3	10.000	10.000	16.600	4.000	16.700	4.000	16.700	12.000
	14.000	4.000	14.000	0.000				
4	10.000	10.000	16.100	10.000	24.200	10.000	18.900	4.000
	18.800	0.000						

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lb/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Top of Beam (in ³)	Section Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer MainedOT Trucks 1-4

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	153.4	6.171	N/A	1.24
1	0.977	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000L	N/A	N/A	153.4	6.171	N/A	1.24
1	1.000R	N/A	N/A	152.4	5.772	N/A	1.46
1	1.954	N/A	N/A	152.4	5.772	N/A	1.46
1	2.931	N/A	N/A	152.4	5.772	N/A	1.46
1	3.908	N/A	N/A	152.4	5.772	N/A	1.46
1	4.885	N/A	N/A	152.4	5.772	N/A	1.46
1	5.863	N/A	N/A	152.4	5.772	N/A	1.46
1	6.840	N/A	N/A	152.4	5.772	N/A	1.46
1	7.817	N/A	N/A	152.4	5.772	N/A	1.46
1	8.794	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771L	N/A	N/A	152.4	5.772	N/A	1.46
1	9.771R	N/A	N/A	152.4	5.772	N/A	1.46
1	10.748	N/A	N/A	152.4	5.772	N/A	1.46
1	11.725	N/A	N/A	152.4	5.772	N/A	1.46
1	12.702	N/A	N/A	152.4	5.772	N/A	1.46
1	13.679	N/A	N/A	152.4	5.772	N/A	1.46
1	14.656	N/A	N/A	152.4	5.772	N/A	1.46
1	15.633	N/A	N/A	152.4	5.772	N/A	1.46
1	16.610	N/A	N/A	152.4	5.772	N/A	1.46
1	17.588	N/A	N/A	152.4	5.772	N/A	1.46

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 SECTION PROPERTIES (cont.)

 ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in^3)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10^4 in^4)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Moderate Stringer MaineDOT Trucks 1-4ANALYSIS (cont.)
-----RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer MainedOT Trucks 1-4
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.5	29.75	0.0	0.00
1	1.000L	12.8	29.71	0.0	0.00
1	1.000R	12.8	29.71	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00

Madawaska Moderate Stringer MainedOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	6.69	0.0	0.00
1	9.771R	61.0	6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.542L	12.8	-29.71	0.0	0.00
1	18.542R	12.8	-29.71	0.0	0.00
1	18.565	12.5	-29.75	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.75	0.0	0.00	0.0	0.000
1	0.977	29.75	12.5	-0.80	6.4	0.041
1	1.000L	29.71	12.8	-0.82	6.5	0.042
1	1.000R	29.71	12.8	-0.82	6.5	0.042
1	1.954	27.76	23.3	-1.60	12.1	0.082
1	2.931	25.76	32.5	-2.39	17.1	0.121
1	3.908	23.77	39.9	-3.19	21.5	0.156
1	4.885	21.77	45.7	-4.71	29.7	0.187
1	5.863	19.78	49.9	-6.31	37.1	0.214
1	6.840	17.78	52.3	-7.91	43.2	0.235
1	7.817	15.89	53.4	-9.50	47.9	0.250
1	8.794	14.29	54.0	-11.10	51.3	0.261
1	9.771L	12.69	53.3	-12.69	53.3	0.264
1	9.771R	12.69	53.3	-12.69	53.3	0.264
1	10.748	11.10	51.3	-14.29	54.0	0.261
1	11.725	9.50	47.9	-15.89	53.4	0.250
1	12.702	7.91	43.2	-17.78	52.3	0.235

Madawaska Moderate Stringer MainedOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	6.31	37.1	-19.78	49.9	0.214
1	14.656	4.71	29.7	-21.77	45.7	0.187
1	15.633	3.19	21.5	-23.77	39.9	0.156
1	16.610	2.39	17.1	-25.76	32.5	0.121
1	17.588	1.60	12.1	-27.76	23.3	0.082
1	18.542L	0.82	6.5	-29.71	12.8	0.042
1	18.542R	0.82	6.5	-29.71	12.8	0.042
1	18.565	0.80	6.4	-29.75	12.5	0.041
1	19.542	0.00	0.0	-31.75	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.75	0.00	0.000000	-0.004085
2	31.75	0.00	0.004085	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	39.79	0.00	0.00	0.00
2	39.79	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.7	30.11	0.0	0.00
1	1.000L	12.9	30.05	0.0	0.00
1	1.000R	12.9	30.05	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00

Madawaska Moderate Stringer MainedOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.542L	12.9	-30.05	0.0	0.00
1	18.542R	12.9	-30.05	0.0	0.00
1	18.565	12.7	-30.11	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.79	0.0	0.00	0.0	0.000
1	0.977	30.11	12.7	-0.68	5.4	0.041
1	1.000L	30.05	12.9	-0.69	5.5	0.042
1	1.000R	30.05	12.9	-0.69	5.5	0.042
1	1.954	27.76	23.3	-1.36	10.3	0.082
1	2.931	25.76	32.5	-2.03	14.5	0.121
1	3.908	23.77	39.9	-2.71	18.2	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235

Madawaska Moderate Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.71	18.2	-23.77	39.9	0.156
1	16.610	2.03	14.5	-25.76	32.5	0.121
1	17.588	1.36	10.3	-27.76	23.3	0.082
1	18.542L	0.69	5.5	-30.05	12.9	0.042
1	18.542R	0.69	5.5	-30.05	12.9	0.042
1	18.565	0.68	5.4	-30.11	12.7	0.041
1	19.542	0.00	0.0	-32.79	0.0	0.000

SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.79	0.00	0.000000	-0.004085
2	32.79	0.00	0.004085	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	41.09	0.00	0.00	0.00
2	41.09	0.00	0.00	0.00

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.98	0.0	0.00
1	1.000L	12.9	29.93	0.0	0.00
1	1.000R	12.9	29.93	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00

Madawaska Moderate Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	-0.65	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.542L	12.9	-29.93	0.0	0.00
1	18.542R	12.9	-29.93	0.0	0.00
1	18.565	12.6	-29.98	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.38	0.0	0.00	0.0	0.000
1	0.977	29.98	12.6	-0.67	5.3	0.041
1	1.000L	29.93	12.9	-0.68	5.4	0.042
1	1.000R	29.93	12.9	-0.68	5.4	0.042
1	1.954	27.76	23.3	-1.33	10.1	0.082
1	2.931	25.76	32.5	-2.00	14.3	0.121
1	3.908	23.77	39.9	-2.67	17.9	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235

Madawaska Moderate Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.67	17.9	-23.77	39.9	0.156
1	16.610	2.00	14.3	-25.76	32.5	0.121
1	17.588	1.33	10.1	-27.76	23.3	0.082
1	18.542L	0.68	5.4	-29.93	12.9	0.042
1	18.542R	0.68	5.4	-29.93	12.9	0.042
1	18.565	0.67	5.3	-29.98	12.6	0.041
1	19.542	0.00	0.0	-32.38	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.38	0.00	0.000000	-0.004085
2	32.38	0.00	0.004085	0.000000

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	40.57	0.00	0.00	0.00
2	40.57	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	30.00	0.0	0.00
1	1.000L	12.9	29.95	0.0	0.00
1	1.000R	12.9	29.95	0.0	0.00
1	1.954	23.1	27.53	0.0	0.00

Madawaska Moderate Stringer MainedOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	31.6	25.06	0.0	0.00
1	3.908	38.0	22.59	0.0	0.00
1	4.885	42.3	5.12	0.0	0.00
1	5.863	45.3	17.99	0.0	0.00
1	6.840	48.6	10.29	0.0	0.00
1	7.817	50.9	7.82	0.0	0.00
1	8.794	51.2	-9.73	0.0	0.00
1	9.771L	50.3	-11.97	0.0	0.00
1	9.771R	50.3	-11.97	0.0	0.00
1	10.748	51.2	9.73	0.0	0.00
1	11.725	50.9	-7.82	0.0	0.00
1	12.702	48.6	-10.29	0.0	0.00
1	13.679	45.3	-17.99	0.0	0.00
1	14.656	42.3	-20.12	0.0	0.00
1	15.633	38.0	-22.59	0.0	0.00
1	16.610	31.6	-25.06	0.0	0.00
1	17.588	23.1	-27.53	0.0	0.00
1	18.542L	12.9	-29.95	0.0	0.00
1	18.542R	12.9	-29.95	0.0	0.00
1	18.565	12.6	-30.00	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.47	0.0	0.00	0.0	0.000
1	0.977	30.00	12.6	-0.97	7.7	0.036
1	1.000L	29.95	12.9	-0.99	7.9	0.037
1	1.000R	29.95	12.9	-0.99	7.9	0.037
1	1.954	27.53	23.1	-1.93	14.6	0.069
1	2.931	25.06	31.6	-2.90	20.7	0.102
1	3.908	22.59	38.0	-3.86	26.0	0.131
1	4.885	20.12	42.3	-4.83	30.4	0.157
1	5.863	17.99	45.3	-5.95	35.0	0.178
1	6.840	16.48	48.5	-7.46	40.7	0.194
1	7.817	14.98	50.4	-8.96	45.2	0.205
1	8.794	13.48	51.0	-10.47	48.4	0.207
1	9.771L	11.97	50.3	-11.97	50.3	0.208
1	9.771R	11.97	50.3	-11.97	50.3	0.208
1	10.748	10.47	48.4	-13.48	51.0	0.207
1	11.725	8.96	45.2	-14.98	50.4	0.205
1	12.702	7.46	40.7	-16.48	48.5	0.194

Madawaska Moderate Stringer MainedOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	5.95	35.0	-17.99	45.3	0.178
1	14.656	4.83	30.4	-20.12	42.3	0.157
1	15.633	3.86	26.0	-22.59	38.0	0.131
1	16.610	2.90	20.7	-25.06	31.6	0.102
1	17.588	1.93	14.6	-27.53	23.1	0.069
1	18.542L	0.99	7.9	-29.95	12.9	0.037
1	18.542R	0.99	7.9	-29.95	12.9	0.037
1	18.565	0.97	7.7	-30.00	12.6	0.036
1	19.542	0.00	0.0	-32.47	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.47	0.00	0.000000	-0.003600
2	32.47	0.00	0.003600	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	40.69	0.00	0.00	0.00
2	40.69	0.00	0.00	0.00

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.010491
2	0.010491	0.000000

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.6	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-4.7	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	6.840	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
1	7.817	TOP	SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	8.794	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0

Madawaska Moderate Stringer MainedOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
1	14.656	TOP	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
		BOT	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.2	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	47.13	0.00	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	0.00	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	0.00	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.1	44.13	5.57	-7.06	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.35	-0.45	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.37	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24	-0.30	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.6	44.06	5.70	-7.22	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	0.36	-0.46	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	0.30	-0.38	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.6	44.06	N/A*	-4.81	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-8.78	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-12.24	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-15.07	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-17.28	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-18.86	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-20.23	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.25	N/A*	-21.79	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.83	N/A*	-22.72	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	18.41	N/A*	-23.03	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	18.41	N/A*	-23.03	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.83	N/A*	-22.72	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.25	N/A*	-21.79	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-20.23	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-18.86	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-17.28	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-15.07	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-12.24	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-8.78	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.6	-44.06	N/A*	-4.81	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.6	-44.06	N/A*	-3.98	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00		N/A**	N/A**	
1	18.565	STR-I	POS.	19.1	-44.13	N/A*	-3.89	0.00		N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00		N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-47.13	N/A*	0.00	0.00		N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00		N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer MainedOT Trucks 1-4
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	19.6	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	35.7	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	49.8	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	61.3	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	70.3	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	76.8	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	82.4	D	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	88.7	D	
		STR-IA	POS.	152.4	5.1	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
1	8.794	STR-I	POS.	152.4	92.5	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
1	9.771L	STR-I	POS.	152.4	93.7	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
1	9.771R	STR-I	POS.	152.4	93.7	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
1	10.748	STR-I	POS.	152.4	92.5	D	
		STR-IA	POS.	152.4	5.3	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
1	11.725	STR-I	POS.	152.4	88.7	D	
		STR-IA	POS.	152.4	5.1	D	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	82.4	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	76.8	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	70.3	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	61.3	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	49.8	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	35.7	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	19.6	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	19.6	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	19.1	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MainedOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					Rh*	Rb*	Mr(e)* (kip-ft)	Fr (ksi)	F+* (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.1	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	5.6	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-7.2	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer MainedOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000	L TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.7	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MainedOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
 (Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
 under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
 flange under uniform bending with consideration of compression-flange residual
 stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier
 (Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
 (Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Stress F+**	Effects Moment M+**	Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-23.0	N/A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.6	N/A
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-23.0	N/A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.6	N/A
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-23.0	N/A
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.6	N/A
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	-1.3	N/A
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	H	-23.0	N/A

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Effects		Code Chk ***
					Local Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	F+** (ksi)	M+** (kip-ft)		
1	1.000R	TOP	STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A		
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A		
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A		
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A		
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A		
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A		
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A		
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A		

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)		Moment M+** (kip-ft)
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-23.0	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
1	10.748	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
1	11.725	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local	*	Governing	*	Local	*	Governing	*	Flexural+Lateral	Moment		
					Fr (ksi)	B	Mr(e)** (kip-ft)	Fr (ksi)	B	Mr (kip-ft)	E	Mr (kip-ft)	E	F+** (ksi)		M+** (kip-ft)
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local	Governing			Local	Governing			Stress	Moment	
					Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Mr (kip-ft)	*	Mr (kip-ft)	*	F+** (ksi)	
1	18.542L	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.542R	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.565	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	19.542	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	6.840	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	11.725	BOT	SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	17.588	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	60.74	47.13	U	
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	44.13	U	
		STR-IA	60.74	0.98	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.977	STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	44.06	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	44.06	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	41.13	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	38.12	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	35.12	U	
		STR-IA	88.35	0.66	U	
		STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	32.12	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	4.885	STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	29.12	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	26.12	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	23.25	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	20.83	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	18.41	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	18.41	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771R	STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-20.83	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-23.25	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-26.12	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-29.12	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-32.12	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	
		STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-35.12	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	88.35	-38.12	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-41.13	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-44.06	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-44.06	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-44.13	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-47.13	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.016	50.8	1	0.000	STR-I
	Shear		1.296	64.8	1	0.000	STR-I
	Controlling		1.016	50.8	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	152.	5.	88.	1.663	
1	10.748	STR-I	POS.	152.	5.	88.	1.663*	
1	11.725	STR-I	POS.	152.	5.	88.	1.663*	
1	12.702	STR-I	POS.	152.	5.	88.	1.663*	
1	13.679	STR-I	POS.	152.	5.	88.	1.663*	
1	14.656	STR-I	POS.	152.	5.	88.	1.663*	
1	15.633	STR-I	POS.	152.	5.	88.	1.663*	
1	16.610	STR-I	POS.	152.	5.	88.	1.663*	
1	17.588	STR-I	POS.	152.	5.	88.	1.663*	
1	18.542L	STR-I	POS.	152.	5.	88.	1.663*	
1	18.542R	STR-I	POS.	152.	5.	88.	1.663*	
1	18.565	STR-I	POS.	152.	5.	88.	1.663*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
		BOT	STR-I	POS.	30.0	0.3	5.3	5.628	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
		BOT	STR-I	POS.	30.0	0.3	5.4	5.506	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	46.04	1.296	
1	0.977	STR-I	POS.	60.74	0.98	43.14	1.385	
1	1.000L	STR-I	POS.	60.74	0.98	43.08	1.387	
1	1.000R	STR-I	POS.	88.35	0.98	43.08	2.028	
1	1.954	STR-I	POS.	88.35	0.87	40.25	2.173	
1	2.931	STR-I	POS.	88.35	0.77	37.36	2.344	
1	3.908	STR-I	POS.	88.35	0.66	34.47	2.544	
1	4.885	STR-I	POS.	88.35	0.55	31.57	2.781	
1	5.863	STR-I	POS.	88.35	0.44	28.68	3.065	
1	6.840	STR-I	POS.	88.35	0.33	25.79	3.413	
1	7.817	STR-I	POS.	88.35	0.22	23.03	3.826	
1	8.794	STR-I	POS.	88.35	0.11	20.72	4.259	
1	9.771L	STR-I	POS.	88.35	0.00	18.41	4.800	
1	9.771R	STR-I	POS.	88.35	0.00	18.41	4.800	
1	10.748	STR-I	NEG.	88.35	-0.11	-20.72	4.259	
1	11.725	STR-I	NEG.	88.35	-0.22	-23.03	3.826	
1	12.702	STR-I	NEG.	88.35	-0.33	-25.79	3.413	
1	13.679	STR-I	NEG.	88.35	-0.44	-28.68	3.065	
1	14.656	STR-I	NEG.	88.35	-0.55	-31.57	2.781	
1	15.633	STR-I	NEG.	88.35	-0.66	-34.47	2.544	
1	16.610	STR-I	NEG.	88.35	-0.77	-37.36	2.344	
1	17.588	STR-I	NEG.	88.35	-0.87	-40.25	2.173	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-43.08	2.028	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.08	2.255	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.14	2.252	
1	19.542	STR-I	NEG.	98.14	-1.09	-46.04	2.108	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.8	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	8.794	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - ANALYSIS (cont.)

 USER INPUT LATERAL STRESSES

This output report is not applicable because no user
 input lateral loads have been entered.

 FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.63	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.4	44.65	5.64	-7.14	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.8	44.55	5.76	-7.30	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.8	44.55	N/A*	-4.86	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-8.78	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-12.24	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-15.07	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-17.28	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-18.86	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-20.23	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	N/A*	-21.79	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	N/A*	-22.72	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	N/A*	-23.03	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	17.11	N/A*	-23.03	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	N/A*	-22.72	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	N/A*	-21.79	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-20.23	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-18.86	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-17.28	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-15.07	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. $0.6 \cdot f'_c$ (ksi)	Limits* $0.85 \cdot f'_c$ (ksi)	Code Chk**
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-12.24	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-8.78	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.8	-44.55	N/A*	-4.86	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.8	-44.55	N/A*	-4.02	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.4	-44.65	N/A*	-3.94	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.63	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MainedOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	19.8	D	
1	1.954	STR-I	POS.	152.4	35.7	D	
1	2.931	STR-I	POS.	152.4	49.8	D	
1	3.908	STR-I	POS.	152.4	61.3	D	
1	4.885	STR-I	POS.	152.4	70.3	D	
1	5.863	STR-I	POS.	152.4	76.8	D	
1	6.840	STR-I	POS.	152.4	82.4	D	
1	7.817	STR-I	POS.	152.4	88.7	D	
1	8.794	STR-I	POS.	152.4	92.5	D	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	152.4	93.7	D	
1	9.771R	STR-I	POS.	152.4	93.7	D	
1	10.748	STR-I	POS.	152.4	92.5	D	
1	11.725	STR-I	POS.	152.4	88.7	D	
1	12.702	STR-I	POS.	152.4	82.4	D	
1	13.679	STR-I	POS.	152.4	76.8	D	
1	14.656	STR-I	POS.	152.4	70.3	D	
1	15.633	STR-I	POS.	152.4	61.3	D	
1	16.610	STR-I	POS.	152.4	49.8	D	
1	17.588	STR-I	POS.	152.4	35.7	D	
1	18.542L	STR-I	POS.	152.4	19.8	D	
1	18.542R	STR-I	POS.	171.5	19.8	D	
1	18.565	STR-I	POS.	171.5	19.4	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_+	Resistance Calculation **	Code Check ***
					R_h^*	R_b^*	$M_r(e)^*$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.1	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.3	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.8	G	

* Legend of General Notes:

- R_h = Hybrid factor
- R_b = Load shedding factor (only applies to compression flange)
- $M_r(e)$ = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, F_r
- F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F_+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
										Lr*	Cb*				
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit T/B	State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	10.748	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	11.725	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	12.702	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	13.679	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	14.656	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	15.633	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	16.610	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	17.588	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3														Appendix A		Factored Effects	Code
Span		T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Chk			
No.	Dist.				Local	Governing	Local	Governing	Stress	Moment	***						
	(ft)				Fr	*	Mr(e)**	Fr	*	Mr	*	Mr	*	F+**	M+**		
					(ksi)		(kip-ft)	(ksi)		(kip-ft)		(kip-ft)		(ksi)	(kip-ft)		
1	18.542L	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.		
1	18.542R	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.		
1	18.565	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.		
1	19.542	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.		

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_{fl}$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $\mu + (1/3) \cdot f_{fl} \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	60.74	48.63	U	
1	0.977	STR-I	60.74	44.65	U	
1	1.000L	STR-I	60.74	44.55	U	
1	1.000R	STR-I	88.35	44.55	U	
1	1.954	STR-I	88.35	41.13	U	
1	2.931	STR-I	88.35	38.12	U	
1	3.908	STR-I	88.35	35.12	U	
1	4.885	STR-I	88.35	32.12	U	
1	5.863	STR-I	88.35	29.12	U	
1	6.840	STR-I	88.35	26.12	U	
1	7.817	STR-I	88.35	23.11	U	
1	8.794	STR-I	88.35	20.11	U	
1	9.771L	STR-I	88.35	17.11	U	
1	9.771R	STR-I	88.35	17.11	U	
1	10.748	STR-I	88.35	-20.11	U	
1	11.725	STR-I	88.35	-23.11	U	
1	12.702	STR-I	88.35	-26.12	U	
1	13.679	STR-I	88.35	-29.12	U	
1	14.656	STR-I	88.35	-32.12	U	
1	15.633	STR-I	88.35	-35.12	U	
1	16.610	STR-I	88.35	-38.12	U	
1	17.588	STR-I	88.35	-41.13	U	

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.542L	STR-I	88.35	-44.55	U	
1	18.542R	STR-I	98.14	-44.55	U	
1	18.565	STR-I	98.14	-44.65	U	
1	19.542	STR-I	98.14	-48.63	U	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.016	47.8	1	0.000	STR-I
	Shear		1.255	59.0	1	0.000	STR-I
	Controlling		1.016	47.8	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	152.	5.	88.	1.663	
1	10.748	STR-I	POS.	152.	5.	88.	1.663*	
1	11.725	STR-I	POS.	152.	5.	88.	1.663*	
1	12.702	STR-I	POS.	152.	5.	88.	1.663*	
1	13.679	STR-I	POS.	152.	5.	88.	1.663*	
1	14.656	STR-I	POS.	152.	5.	88.	1.663*	
1	15.633	STR-I	POS.	152.	5.	88.	1.663*	
1	16.610	STR-I	POS.	152.	5.	88.	1.663*	
1	17.588	STR-I	POS.	152.	5.	88.	1.663*	
1	18.542L	STR-I	POS.	152.	5.	88.	1.663*	
1	18.542R	STR-I	POS.	152.	5.	88.	1.663*	
1	18.565	STR-I	POS.	152.	5.	88.	1.663*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
		BOT	STR-I	POS.	30.0	0.3	5.3	5.561	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
		BOT	STR-I	POS.	30.0	0.3	5.5	5.443	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	47.54	1.255	
1	0.977	STR-I	POS.	60.74	0.98	43.66	1.368	
1	1.000L	STR-I	POS.	60.74	0.98	43.57	1.371	
1	1.000R	STR-I	POS.	88.35	0.98	43.57	2.005	
1	1.954	STR-I	POS.	88.35	0.87	40.25	2.173	
1	2.931	STR-I	POS.	88.35	0.77	37.36	2.344	
1	3.908	STR-I	POS.	88.35	0.66	34.47	2.544	
1	4.885	STR-I	POS.	88.35	0.55	31.57	2.781	
1	5.863	STR-I	POS.	88.35	0.44	28.68	3.065	
1	6.840	STR-I	POS.	88.35	0.33	25.79	3.413	
1	7.817	STR-I	POS.	88.35	0.22	22.89	3.849	
1	8.794	STR-I	POS.	88.35	0.11	20.00	4.412	
1	9.771L	STR-I	POS.	88.35	0.00	17.11	5.164	
1	9.771R	STR-I	POS.	88.35	0.00	17.11	5.164	
1	10.748	STR-I	NEG.	88.35	-0.11	-20.00	4.412	
1	11.725	STR-I	NEG.	88.35	-0.22	-22.89	3.849	
1	12.702	STR-I	NEG.	88.35	-0.33	-25.79	3.413	
1	13.679	STR-I	NEG.	88.35	-0.44	-28.68	3.065	
1	14.656	STR-I	NEG.	88.35	-0.55	-31.57	2.781	
1	15.633	STR-I	NEG.	88.35	-0.66	-34.47	2.544	
1	16.610	STR-I	NEG.	88.35	-0.77	-37.36	2.344	
1	17.588	STR-I	NEG.	88.35	-0.87	-40.25	2.173	

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-43.57	2.005	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.57	2.230	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.66	2.225	
1	19.542	STR-I	NEG.	98.14	-1.09	-47.54	2.041	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	8.794	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.4	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.8	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.2	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.2	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	13.5	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.2	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.6	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.0	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.2	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.9	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	0.000	STR-I	POS.	0.0	48.04	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.46	5.61	-7.11	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.7	44.38	5.74	-7.27	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.7	44.38	N/A*	-4.84	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-8.78	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-12.24	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-15.07	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-17.28	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-18.86	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-20.23	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	N/A*	-21.79	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	N/A*	-22.72	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	N/A*	-23.03	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	17.11	N/A*	-23.03	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	N/A*	-22.72	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	N/A*	-21.79	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-20.23	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-18.86	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-17.28	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-15.07	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 1-4

SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. $0.6 \cdot f'_c$ (ksi)	Limits* $0.85 \cdot f'_c$ (ksi)	Code Chk**
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-12.24	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-8.78	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.7	-44.38	N/A*	-4.84	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.7	-44.38	N/A*	-4.00	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.46	N/A*	-3.92	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.04	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MainedOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	19.7	D	
1	1.954	STR-I	POS.	152.4	35.7	D	
1	2.931	STR-I	POS.	152.4	49.8	D	
1	3.908	STR-I	POS.	152.4	61.3	D	
1	4.885	STR-I	POS.	152.4	70.3	D	
1	5.863	STR-I	POS.	152.4	76.8	D	
1	6.840	STR-I	POS.	152.4	82.4	D	
1	7.817	STR-I	POS.	152.4	88.7	D	
1	8.794	STR-I	POS.	152.4	92.5	D	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	152.4	93.7	D	
1	9.771R	STR-I	POS.	152.4	93.7	D	
1	10.748	STR-I	POS.	152.4	92.5	D	
1	11.725	STR-I	POS.	152.4	88.7	D	
1	12.702	STR-I	POS.	152.4	82.4	D	
1	13.679	STR-I	POS.	152.4	76.8	D	
1	14.656	STR-I	POS.	152.4	70.3	D	
1	15.633	STR-I	POS.	152.4	61.3	D	
1	16.610	STR-I	POS.	152.4	49.8	D	
1	17.588	STR-I	POS.	152.4	35.7	D	
1	18.542L	STR-I	POS.	152.4	19.7	D	
1	18.542R	STR-I	POS.	171.5	19.7	D	
1	18.565	STR-I	POS.	171.5	19.3	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_+	Resistance Calculation **	Code Check ***
					R_h^*	R_b^*	$M_r(e)^*$ (kip-ft)	F_r (ksi)	F_+ (ksi)		
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.1	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.3	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.7	G	

* Legend of General Notes:

- R_h = Hybrid factor
- R_b = Load shedding factor (only applies to compression flange)
- $M_r(e)$ = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, F_r
- F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F_+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
										Lr*	Cb*				
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.0	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	10.748	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	11.725	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	12.702	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	13.679	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	14.656	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	15.633	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	16.610	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	
1	17.588	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	94.	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3															Appendix A				Factored Effects		Code Chk ***
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance					Flexural Resistance					Flexural+Lateral						
					Local	*	Governing	*	Local	*	Governing	*	Stress	Moment							
					Fr (ksi)	Mr(e)** (kip-ft)	Fr (ksi)	Mr (kip-ft)	Fr (ksi)	Mr (kip-ft)	Fr (ksi)	Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)							
1	18.542L	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.						
1	18.542R	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.						
1	18.565	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.						
1	19.542	TOP	STR-I	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	N/A	94.						

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $\mu + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	60.74	48.04	U	
1	0.977	STR-I	60.74	44.46	U	
1	1.000L	STR-I	60.74	44.38	U	
1	1.000R	STR-I	88.35	44.38	U	
1	1.954	STR-I	88.35	41.13	U	
1	2.931	STR-I	88.35	38.12	U	
1	3.908	STR-I	88.35	35.12	U	
1	4.885	STR-I	88.35	32.12	U	
1	5.863	STR-I	88.35	29.12	U	
1	6.840	STR-I	88.35	26.12	U	
1	7.817	STR-I	88.35	23.11	U	
1	8.794	STR-I	88.35	20.11	U	
1	9.771L	STR-I	88.35	17.11	U	
1	9.771R	STR-I	88.35	17.11	U	
1	10.748	STR-I	88.35	-20.11	U	
1	11.725	STR-I	88.35	-23.11	U	
1	12.702	STR-I	88.35	-26.12	U	
1	13.679	STR-I	88.35	-29.12	U	
1	14.656	STR-I	88.35	-32.12	U	
1	15.633	STR-I	88.35	-35.12	U	
1	16.610	STR-I	88.35	-38.12	U	
1	17.588	STR-I	88.35	-41.13	U	

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.542L	STR-I	88.35	-44.38	U	
1	18.542R	STR-I	98.14	-44.38	U	
1	18.565	STR-I	98.14	-44.46	U	
1	19.542	STR-I	98.14	-48.04	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.016	44.7	1	0.000	STR-I
	Shear		1.270	55.9	1	0.000	STR-I
	Controlling		1.016	44.7	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	152.	5.	88.	1.663	
1	10.748	STR-I	POS.	152.	5.	88.	1.663*	
1	11.725	STR-I	POS.	152.	5.	88.	1.663*	
1	12.702	STR-I	POS.	152.	5.	88.	1.663*	
1	13.679	STR-I	POS.	152.	5.	88.	1.663*	
1	14.656	STR-I	POS.	152.	5.	88.	1.663*	
1	15.633	STR-I	POS.	152.	5.	88.	1.663*	
1	16.610	STR-I	POS.	152.	5.	88.	1.663*	
1	17.588	STR-I	POS.	152.	5.	88.	1.663*	
1	18.542L	STR-I	POS.	152.	5.	88.	1.663*	
1	18.542R	STR-I	POS.	152.	5.	88.	1.663*	
1	18.565	STR-I	POS.	152.	5.	88.	1.663*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
		BOT	STR-I	POS.	30.0	0.3	5.3	5.584	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
		BOT	STR-I	POS.	30.0	0.3	5.4	5.465	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-21.7	1.016*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	46.95	1.270	
1	0.977	STR-I	POS.	60.74	0.98	43.48	1.374	
1	1.000L	STR-I	POS.	60.74	0.98	43.40	1.377	
1	1.000R	STR-I	POS.	88.35	0.98	43.40	2.013	
1	1.954	STR-I	POS.	88.35	0.87	40.25	2.173	
1	2.931	STR-I	POS.	88.35	0.77	37.36	2.344	
1	3.908	STR-I	POS.	88.35	0.66	34.47	2.544	
1	4.885	STR-I	POS.	88.35	0.55	31.57	2.781	
1	5.863	STR-I	POS.	88.35	0.44	28.68	3.065	
1	6.840	STR-I	POS.	88.35	0.33	25.79	3.413	
1	7.817	STR-I	POS.	88.35	0.22	22.89	3.849	
1	8.794	STR-I	POS.	88.35	0.11	20.00	4.412	
1	9.771L	STR-I	POS.	88.35	0.00	17.11	5.164	
1	9.771R	STR-I	POS.	88.35	0.00	17.11	5.164	
1	10.748	STR-I	NEG.	88.35	-0.11	-20.00	4.412	
1	11.725	STR-I	NEG.	88.35	-0.22	-22.89	3.849	
1	12.702	STR-I	NEG.	88.35	-0.33	-25.79	3.413	
1	13.679	STR-I	NEG.	88.35	-0.44	-28.68	3.065	
1	14.656	STR-I	NEG.	88.35	-0.55	-31.57	2.781	
1	15.633	STR-I	NEG.	88.35	-0.66	-34.47	2.544	
1	16.610	STR-I	NEG.	88.35	-0.77	-37.36	2.344	
1	17.588	STR-I	NEG.	88.35	-0.87	-40.25	2.173	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-43.40	2.013	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.40	2.239	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.48	2.235	
1	19.542	STR-I	NEG.	98.14	-1.09	-46.95	2.067	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.8	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.0	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.5	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	8.794	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	12.7	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	12.7	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	12.9	0.0

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.5	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.0	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-5.7	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	5.8	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.6	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.18	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.49	5.62	-7.12	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	19.7	44.40	5.74	-7.27	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	19.7	44.40	N/A*	-4.84	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.5	40.80	N/A*	-8.71	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	48.5	37.11	N/A*	-11.92	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	58.5	33.42	N/A*	-14.37	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	65.3	29.73	N/A*	-16.04	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	70.2	26.52	N/A*	-17.26	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	75.3	24.23	N/A*	-18.50	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	79.0	21.94	N/A*	-19.40	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	79.5	19.65	N/A*	-19.53	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	78.3	17.36	N/A*	-19.23	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	78.3	17.36	N/A*	-19.23	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	79.5	-19.65	N/A*	-19.53	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	79.0	-21.94	N/A*	-19.40	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	75.3	-24.23	N/A*	-18.50	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	70.2	-26.52	N/A*	-17.26	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	65.3	-29.73	N/A*	-16.04	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	58.5	-33.42	N/A*	-14.37	0.00	N/A**	N/A**	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	16.610	STR-I	POS.	48.5	-37.11	N/A*	-11.92	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.5	-40.80	N/A*	-8.71	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	19.7	-44.40	N/A*	-4.84	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	19.7	-44.40	N/A*	-4.01	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.49	N/A*	-3.92	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.18	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	19.7	D	
1	1.954	STR-I	POS.	152.4	35.5	D	
1	2.931	STR-I	POS.	152.4	48.5	D	
1	3.908	STR-I	POS.	152.4	58.5	D	
1	4.885	STR-I	POS.	152.4	65.3	D	
1	5.863	STR-I	POS.	152.4	70.2	D	
1	6.840	STR-I	POS.	152.4	75.3	D	
1	7.817	STR-I	POS.	152.4	79.0	D	
1	8.794	STR-I	POS.	152.4	79.5	D	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	152.4	78.3	D	
1	9.771R	STR-I	POS.	152.4	78.3	D	
1	10.748	STR-I	POS.	152.4	79.5	D	
1	11.725	STR-I	POS.	152.4	79.0	D	
1	12.702	STR-I	POS.	152.4	75.3	D	
1	13.679	STR-I	POS.	152.4	70.2	D	
1	14.656	STR-I	POS.	152.4	65.3	D	
1	15.633	STR-I	POS.	152.4	58.5	D	
1	16.610	STR-I	POS.	152.4	48.5	D	
1	17.588	STR-I	POS.	152.4	35.5	D	
1	18.542L	STR-I	POS.	152.4	19.7	D	
1	18.542R	STR-I	POS.	171.5	19.7	D	
1	18.565	STR-I	POS.	171.5	19.3	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_+	Resistance Calculation **	Code Check ***
					R_h^*	R_b^*	$M_r(e)^*$ (kip-ft)	F_r (ksi)	F_+ (ksi)		
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.1	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.6	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.3	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	5.7	G	

* Legend of General Notes:

- R_h = Hybrid factor
- R_b = Load shedding factor (only applies to compression flange)
- $M_r(e)$ = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, F_r
- F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F_+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
										Lr*	Cb*				
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit T/B	State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.182	16.92	1.182	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.182	16.92	1.182	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.182	16.95	1.182	122.1	1.248

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-19.5	N/A	
1	9.771R	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	10.748	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	11.725	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	12.702	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	13.679	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	14.656	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	15.633	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	16.610	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	
1	17.588	TOP	STR-I	P	-28.6	B	117.	-28.6	143.	E	143.	E	N/A	79.	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Effects	Chk	
					Local Fr (ksi)	* Mr(e) (kip-ft)	* Fr (ksi)	* Mr (kip-ft)	Local Mr (ksi)	* Mr (kip-ft)	* Mr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)	***	
1	18.542L	TOP	STR-I	P	-28.6	B	117.	-28.6	B	143.	E	143.	E	N/A	79.	
1	18.542R	TOP	STR-I	P	-28.6	B	116.	-28.6	B	143.	E	143.	E	N/A	79.	
1	18.565	TOP	STR-I	P	-28.6	B	116.	-28.6	B	143.	E	143.	E	N/A	79.	
1	19.542	TOP	STR-I	P	-28.6	B	117.	-28.6	B	143.	E	143.	E	N/A	79.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_{fl}$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_{fl} \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	60.74	48.18	U	
1	0.977	STR-I	60.74	44.49	U	
1	1.000L	STR-I	60.74	44.40	U	
1	1.000R	STR-I	88.35	44.40	U	
1	1.954	STR-I	88.35	40.80	U	
1	2.931	STR-I	88.35	37.11	U	
1	3.908	STR-I	88.35	33.42	U	
1	4.885	STR-I	88.35	29.73	U	
1	5.863	STR-I	88.35	26.52	U	
1	6.840	STR-I	88.35	24.23	U	
1	7.817	STR-I	88.35	21.94	U	
1	8.794	STR-I	88.35	19.65	U	
1	9.771L	STR-I	88.35	17.36	U	
1	9.771R	STR-I	88.35	17.36	U	
1	10.748	STR-I	88.35	-19.65	U	
1	11.725	STR-I	88.35	-21.94	U	
1	12.702	STR-I	88.35	-24.23	U	
1	13.679	STR-I	88.35	-26.52	U	
1	14.656	STR-I	88.35	-29.73	U	
1	15.633	STR-I	88.35	-33.42	U	
1	16.610	STR-I	88.35	-37.11	U	
1	17.588	STR-I	88.35	-40.80	U	

 Madawaska Moderate Stringer MainedOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.542L	STR-I	88.35	-44.40	U	
1	18.542R	STR-I	98.14	-44.40	U	
1	18.565	STR-I	98.14	-44.49	U	
1	19.542	STR-I	98.14	-48.18	U	

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.211	53.3	1	0.000	STR-I
	Shear		1.267	55.7	1	0.000	STR-I
	Controlling		1.211	53.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	143.	5.	74.	1.861*	
1	10.748	STR-I	POS.	143.	5.	74.	1.861*	
1	11.725	STR-I	POS.	143.	5.	74.	1.861*	
1	12.702	STR-I	POS.	143.	5.	74.	1.861*	
1	13.679	STR-I	POS.	143.	5.	74.	1.861*	
1	14.656	STR-I	POS.	143.	5.	74.	1.861*	
1	15.633	STR-I	POS.	143.	5.	74.	1.861*	
1	16.610	STR-I	POS.	143.	5.	74.	1.861*	
1	17.588	STR-I	POS.	143.	5.	74.	1.861*	
1	18.542L	STR-I	POS.	143.	5.	74.	1.861*	
1	18.542R	STR-I	POS.	143.	5.	74.	1.859*	
1	18.565	STR-I	POS.	143.	5.	74.	1.859*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
		BOT	STR-I	POS.	30.0	0.3	5.3	5.581	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
		BOT	STR-I	POS.	30.0	0.3	5.4	5.462	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-18.2	1.211*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	47.09	1.267	
1	0.977	STR-I	POS.	60.74	0.98	43.51	1.373	
1	1.000L	STR-I	POS.	60.74	0.98	43.42	1.376	
1	1.000R	STR-I	POS.	88.35	0.98	43.42	2.012	
1	1.954	STR-I	POS.	88.35	0.87	39.92	2.191	
1	2.931	STR-I	POS.	88.35	0.77	36.34	2.410	
1	3.908	STR-I	POS.	88.35	0.66	32.76	2.677	
1	4.885	STR-I	POS.	88.35	0.55	29.18	3.009	
1	5.863	STR-I	POS.	88.35	0.44	26.08	3.370	
1	6.840	STR-I	POS.	88.35	0.33	23.90	3.683	
1	7.817	STR-I	POS.	88.35	0.22	21.72	4.057	
1	8.794	STR-I	POS.	88.35	0.11	19.54	4.516	
1	9.771L	STR-I	POS.	88.35	0.00	17.36	5.090	
1	9.771R	STR-I	POS.	88.35	0.00	17.36	5.090	
1	10.748	STR-I	NEG.	88.35	-0.11	-19.54	4.516	
1	11.725	STR-I	NEG.	88.35	-0.22	-21.72	4.057	
1	12.702	STR-I	NEG.	88.35	-0.33	-23.90	3.683	
1	13.679	STR-I	NEG.	88.35	-0.44	-26.08	3.370	
1	14.656	STR-I	NEG.	88.35	-0.55	-29.18	3.009	
1	15.633	STR-I	NEG.	88.35	-0.66	-32.76	2.677	
1	16.610	STR-I	NEG.	88.35	-0.77	-36.34	2.410	
1	17.588	STR-I	NEG.	88.35	-0.87	-39.92	2.191	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-43.42	2.012	
1	18.542R	STR-I	NEG.	98.14	-0.98	-43.42	2.237	
1	18.565	STR-I	NEG.	98.14	-0.98	-43.51	2.233	
1	19.542	STR-I	NEG.	98.14	-1.09	-47.09	2.061	

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Moderate Stringer MaineDOT Trucks 1-4
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.75	-0.004085
	LL (SPECIAL #2)	0.00	32.79	-0.004085
	LL (SPECIAL #3)	0.00	32.38	-0.004085
	LL (SPECIAL #4)	0.00	32.47	-0.003600
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.75	0.004085
	LL (SPECIAL #2)	0.00	32.79	0.004085
	LL (SPECIAL #3)	0.00	32.38	0.004085
	LL (SPECIAL #4)	0.00	32.47	0.003600

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69
2	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Lane LC (kips)
1	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	
2	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	

Note: Impact must be added for pier cap design

Madawaska Moderate Stringer MaineDOT Trucks 1-4
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory Operating	Flexure Not Applicable	T	1.016	50.8	1	0.000	STR-I
SPECIAL #2							
Inventory Operating	Flexure Not Applicable	T	1.016	47.8	1	0.000	STR-I
SPECIAL #3							
Inventory Operating	Flexure Not Applicable	T	1.016	44.7	1	0.000	STR-I
SPECIAL #4							
Inventory Operating	Flexure Not Applicable	T	1.211	53.3	1	0.000	STR-I

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY RATING (IR)	Dist. Fact.	0.258	0.258	0.258	0.258
	Loc. (ft)	0.000	0.000	0.000	0.000
	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	1.02M	1.02M	1.02M	1.21M
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING RATING (OR)	Dist. Fact.	---	---	---	---
	Loc. (ft)	---	---	---	---
	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					171.46
Location (ft)					18.54R
Maximum Factored Shear Resistance (kips)					98.14
Location (ft)					18.54R
					Span Length(ft) = 19.54

Madawaska Moderate Stringer MaineDOT Trucks 1-4
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS

S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer MainedOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Moderate Stringer MainedOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

SPECIAL #2

BEARING STIFFENER CHECK

SPECIAL #3

BEARING STIFFENER CHECK

SPECIAL #4

BEARING STIFFENER CHECK

 Madawaska Moderate Stringer MainedOT Trucks 1-4

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate MainedOT Trucks 1-4.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	13
BEAM GEOMETRY.....	13
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	14
SKEW ANGLES.....	14
SPAN LENGTHS.....	14
MATERIAL PROPERTIES.....	14
PLATE GIRDER PROPERTIES, PART 1 of 2.....	14
PLATE GIRDER PROPERTIES, PART 2 of 2.....	14
SECTION LOSSES.....	15
SLAB PROPERTIES, PART 1 OF 2.....	15
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	16
SPECIAL LIVE LOADING.....	16
SPECIAL AXLE LOAD.....	16
BRACE POINTS.....	16
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	21

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	23
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	24
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	24
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	26
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	28
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	28
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	29
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	30
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	30
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	31
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	32
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	32
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	32
SPECIAL #1 - ANALYSIS.....	33
UNFACTORED FLEXURAL STRESSES.....	33
USER INPUT LATERAL STRESSES.....	44
FACTORED ANALYSIS RESULTS.....	44
FACTORED LATERAL STRESSES.....	51
SPECIAL #1 - SPECIFICATION CHECKING.....	52
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	52
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	56
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	60
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	61
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	66
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71

SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	78
SPECIAL #1 - RATINGS W/O FWS.....	83
RATING FACTORS - SUMMARY.....	83
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	83
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	84
RATING FACTORS - SHEAR CAPACITY.....	85
SPECIAL #2 - ANALYSIS.....	87
UNFACTORED FLEXURAL STRESSES.....	87
USER INPUT LATERAL STRESSES.....	89
FACTORED ANALYSIS RESULTS.....	89
FACTORED LATERAL STRESSES.....	90
SPECIAL #2 - SPECIFICATION CHECKING.....	91
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	91
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	92
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	94
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	95
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	97
FLANGE LATERAL CAPACITY.....	98
NET SECTION FRACTURE CHECK.....	98
SHEAR CAPACITY.....	99
SPECIAL #2 - RATINGS W/O FWS.....	101
RATING FACTORS - SUMMARY.....	101
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	101
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	102
RATING FACTORS - SHEAR CAPACITY.....	103
SPECIAL #3 - ANALYSIS.....	105
UNFACTORED FLEXURAL STRESSES.....	105
USER INPUT LATERAL STRESSES.....	107
FACTORED ANALYSIS RESULTS.....	107
FACTORED LATERAL STRESSES.....	108
SPECIAL #3 - SPECIFICATION CHECKING.....	109
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	109
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	110
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	112
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	113
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	115
FLANGE LATERAL CAPACITY.....	116
NET SECTION FRACTURE CHECK.....	116
SHEAR CAPACITY.....	117
SPECIAL #3 - RATINGS W/O FWS.....	119

RATING FACTORS - SUMMARY.....	119
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	119
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	120
RATING FACTORS - SHEAR CAPACITY.....	121
SPECIAL #4 - ANALYSIS.....	123
UNFACTORED FLEXURAL STRESSES.....	123
USER INPUT LATERAL STRESSES.....	125
FACTORED ANALYSIS RESULTS.....	125
FACTORED LATERAL STRESSES.....	126
SPECIAL #4 - SPECIFICATION CHECKING.....	127
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	127
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	128
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	130
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	131
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	133
FLANGE LATERAL CAPACITY.....	134
NET SECTION FRACTURE CHECK.....	134
SHEAR CAPACITY.....	135
SPECIAL #4 - RATINGS W/O FWS.....	137
RATING FACTORS - SUMMARY.....	137
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	137
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	138
RATING FACTORS - SHEAR CAPACITY.....	139
SUMMARY - OVERALL REACTIONS.....	141
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	141
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	142
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	143
DL REACTIONS (UNFACTORED) PER GIRDER.....	143
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	143
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	144
DL REACTIONS (UNFACTORED) PER GIRDER.....	144
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	144
OVERALL RATING SUMMARY W/O FWS.....	145
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	145
BRIDGE LOAD RATINGS W/O FWS.....	145
SUMMARY - SPECIFICATION CHECKS.....	147
SPECIFICATION CHECK WARNINGS.....	147
SPECIFICATION CHECK FAILURES.....	148

MODERATE SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 5-8

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Moderate Stringer MaineDOT Trucks 5-8
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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```

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

```
!Madawaska Moderate Stringer MaineDOT Trucks 5-8
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Moderate Stringer MaineDOT Trucks 5-8
TTL
TTL MADE BY: SMZ                      DATE: 09/22/17
TTL
TTL CHECKED BY: EMG                   DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ               DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,1,1,18.5416,TP,B,-1.4775,2.545,0.15325,TP,B,1.4775,2.545,0.15325,BP,T,-1.4775,2.545,0.0595
SLS 1,1,1,18.5416,BP,T,1.4775,2.545,0.1845
SLS 1,1,1,18.5416,W,L,1,2,0.0625,W,R,1,2,0.125,W,R,6.878,6,0.03125
SLS 1,0,1,1,TP,B,-1.4775,2.545,0.622,TP,B,2.625,0.25,0.622,BP,T,-2.125,1.25,0.622
SLS 1,0,1,1,W,L,6.878,13.756,0.125,W,R,6.878,13.756,0.03125
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,22,4,22,16,17,4,17,0
SLL 2,N,0,0
SAL 2,11.9,9,21.3,4,21.4,4,21.3,0
SLL 3,N,0,0
SAL 3,13.4,10,23,4,23,0
SLL 4,N,0,0
SAL 4,13.2,10,24.2,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1
```

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.33        (default)
FATIGUE DYN. LOAD ALLOW.      1.15        (default)
PA TRAFFIC FACTOR              1.20        (default)
REDISTRIBUTE NEG. MOMENTS     N          (default)
IMPORTANCE FACTOR              1.0          (default)
DUCTILITY FACTOR               1.0          (default)
REDUNDANCY FACTOR              1.0          (default)
REDUNDANT LOAD PATH           R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.         1.20        (default)
SKEW ANGLE DESIGNATION        P          (default)
CONSTANT LATERAL STRESS       0. ksi      (default)
DC1S PERCENTAGE               0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
    %WARNING - <GEO>:
        Real value out of range
        The value entered for BEAM/STRINGER SPACING is
        less than the lower range limit.
        Value Entered: 2.583
        Valid values are between 3. and 18.
DECK OVERHANG                   * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS           N          (default)
NO. OF DESIGN LANES             2
DEFLECTION DF                   *          (computed, if necessary)
SDWK NO. OF DESIGN LANES        *          (computed, if necessary)
SDWK DEFLECTION DF              *          (computed, if necessary)
    
```

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Moderate Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Moderate Stringer MaineDOT Trucks 5-8
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.15325 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.0595 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	1.4775 in
WIDTH	2.545 in
THICKNESS	0.1845 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	1 ft
END SPAN NUMBER	1
END LOSS DISTANCE	18.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.0625 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	1 in
WIDTH	2 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS (cont.)

DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	-1.4775 in
WIDTH	2.545 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	TP
LOCATION	B
DISTANCE	2.625 in
WIDTH	0.25 in
THICKNESS	0.622 in
SECTION LOSS ELEMENT	BP
LOCATION	T
DISTANCE	-2.125 in
WIDTH	1.25 in
THICKNESS	0.622 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	1 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	13.756 in
THICKNESS	0.03125 in

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  SLB
ACTUAL SLAB THICK.          5 in
EFF. SLAB THICK.            5 in
CONCRETE STRENGTH           4 ksi
CONC. DENSITY FOR LOADS     0 lbf/ft^3
    %WARNING - <SLB>:
        Real value out of range
        The value entered for CONC. DENSITY FOR LOADS is
        less than the lower range limit.
        Value Entered: 0.
        Valid values are between 100. and 180.
CONC. DENSITY FOR EC        145. lbf/ft^3 (default)
DECK REINF. STRENGTH        60. ksi (default)
STEEL MOD. OF ELASTICITY    29000. ksi (default)
SLAB TRANSVERSE BAR SIZE    * (computed, if necessary)
DEV. LENGTH FACTOR SLAB     1.0 (default)

COMMAND:  LDF
LOAD FACTOR TYPE            SLL
LOAD FACTOR STRENGTH I      1.45
LOAD FACTOR STRENGTH IP     0
LOAD FACTOR STRENGTH IA     0
LOAD FACTOR STRENGTH II     0
LOAD FACTOR STRENGTH III    0
LOAD FACTOR STRENGTH IV     0
LOAD FACTOR STRENGTH V      0
LOAD FACTOR SERVICE II      0
LOAD FACTOR SERVICE IIA     0
LOAD FACTOR SERVICE IIB     0
LOAD FACTOR FATIGUE I       0
LOAD FACTOR DEFLECTION      0
LOAD FACTOR CONSTRUCTION    0
LOAD FACTOR SERVICE I       0
LOAD FACTOR FATIGUE II      0
    
```

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND: DLD
LOAD TYPE                DC1
START SPAN NUMBER        1
START DISTANCE            0 ft
END SPAN NUMBER          1
END DISTANCE              19.541666666 ft
START MAGNITUDE           0.047 kip/ft
END MAGNITUDE             0.047 kip/ft

COMMAND: SLL
SPECIAL LL NUMBER        1
AXLE EFFECT               N
LANE LOAD                 0 kip/ft
PERCENT INCREASE         0

COMMAND: SAL
SPECIAL LL NUMBER        1
AXLE LOAD                 10 kip
AXLE SPACING              10 ft
AXLE LOAD                 22 kip
AXLE SPACING              4 ft
AXLE LOAD                 22 kip
AXLE SPACING              16 ft
AXLE LOAD                 17 kip
AXLE SPACING              4 ft
AXLE LOAD                 17 kip
AXLE SPACING              0 ft

COMMAND: SLL
SPECIAL LL NUMBER        2
AXLE EFFECT               N
LANE LOAD                 0 kip/ft
PERCENT INCREASE         0

COMMAND: SAL
SPECIAL LL NUMBER        2
AXLE LOAD                 11.9 kip
AXLE SPACING              9 ft
AXLE LOAD                 21.3 kip
AXLE SPACING              4 ft
AXLE LOAD                 21.4 kip
AXLE SPACING              4 ft
AXLE LOAD                 21.3 kip
AXLE SPACING              0 ft
    
```

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLL	
SPECIAL LL NUMBER	3
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0
COMMAND: SAL	
SPECIAL LL NUMBER	3
AXLE LOAD	13.4 kip
AXLE SPACING	10 ft
AXLE LOAD	23 kip
AXLE SPACING	4 ft
AXLE LOAD	23 kip
AXLE SPACING	0 ft
COMMAND: SLL	
SPECIAL LL NUMBER	4
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0
COMMAND: SAL	
SPECIAL LL NUMBER	4
AXLE LOAD	13.2 kip
AXLE SPACING	10 ft
AXLE LOAD	24.2 kip
AXLE SPACING	0 ft
COMMAND: BRP	
START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft
COMMAND: OIN	
INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OAN	
POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1
COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490.	lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*		(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y		(default)
AASHTO/PENNDOT SPECS	P		(default)
PRINT DIMENSION FILE	N		(default)

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

%WARNING - <Input Post Processor>:
 The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
		NO	2	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

INPUT (cont.)

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L Y	V O A R	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	1.000	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	18.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220
1	19.542	1				13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	1.000	0.000	0.000	0.000
1	18.542	0.000	0.000	0.000
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	1.000	Top Plate	Bottom	-1.477	2.545	0.6220
				Top Plate	Bottom	2.625	0.250	0.6220
				Bottom Plate	Top	-2.125	1.250	0.6220
				Web	Left	6.878	13.756	0.1250
				Web	Right	6.878	13.756	0.0312
1	1.000	1	18.542	Top Plate	Bottom	-1.477	2.545	0.1532
				Top Plate	Bottom	1.477	2.545	0.1532
				Bottom Plate	Top	-1.477	2.545	0.0595
				Bottom Plate	Top	1.477	2.545	0.1845
				Web	Left	1.000	2.000	0.0625
				Web	Right	1.000	2.000	0.1250
				Web	Right	6.878	6.000	0.0312

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	22.000	4.000	22.000	16.000	17.000	4.000
	17.000	0.000						
2	11.900	9.000	21.300	4.000	21.400	4.000	21.300	0.000
3	13.400	10.000	23.000	4.000	23.000	0.000		
4	13.200	10.000	24.200	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	0.977	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000L	273.	6.616	8.384	N/A	N/A	41.	33.	N/A	N/A
1	1.000R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	1.954	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	2.931	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	3.908	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	4.885	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	5.863	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	6.840	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	7.817	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	8.794	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	9.771R	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	10.748	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	11.725	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	12.702	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	13.679	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	14.656	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	15.633	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	16.610	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	17.588	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542L	361.	7.604	7.396	N/A	N/A	48.	49.	N/A	N/A
1	18.542R	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	18.565	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A
1	19.542	443.	7.500	7.500	N/A	N/A	59.	59.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	7.82	0.000	1.	4.	6.	0.911	0.781
1	0.977	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000L	7.82	0.000	1.	4.	6.	0.911	0.781
1	1.000R	10.52	0.000	6.	7.	13.	1.132	1.569
1	1.954	10.52	0.000	6.	7.	13.	1.132	1.569
1	2.931	10.52	0.000	6.	7.	13.	1.132	1.569
1	3.908	10.52	0.000	6.	7.	13.	1.132	1.569
1	4.885	10.52	0.000	6.	7.	13.	1.132	1.569
1	5.863	10.52	0.000	6.	7.	13.	1.132	1.569
1	6.840	10.52	0.000	6.	7.	13.	1.132	1.569
1	7.817	10.52	0.000	6.	7.	13.	1.132	1.569

Madawaska Moderate Stringer MainedOT Trucks 5-8
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	8.794	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771L	10.52	0.000	6.	7.	13.	1.132	1.569
1	9.771R	10.52	0.000	6.	7.	13.	1.132	1.569
1	10.748	10.52	0.000	6.	7.	13.	1.132	1.569
1	11.725	10.52	0.000	6.	7.	13.	1.132	1.569
1	12.702	10.52	0.000	6.	7.	13.	1.132	1.569
1	13.679	10.52	0.000	6.	7.	13.	1.132	1.569
1	14.656	10.52	0.000	6.	7.	13.	1.132	1.569
1	15.633	10.52	0.000	6.	7.	13.	1.132	1.569
1	16.610	10.52	0.000	6.	7.	13.	1.132	1.569
1	17.588	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542L	10.52	0.000	6.	7.	13.	1.132	1.569
1	18.542R	12.48	0.000	9.	9.	17.	1.178	1.588
1	18.565	12.48	0.000	9.	9.	17.	1.178	1.588
1	19.542	12.48	0.000	9.	9.	17.	1.178	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties		Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Depth of Web, Dcp (k-ft) (in)		
1	0.000	N/A	N/A	153.4	6.171	1.24
1	0.977	N/A	N/A	153.4	6.171	1.24
1	1.000L	N/A	N/A	153.4	6.171	1.24
1	1.000R	N/A	N/A	152.4	5.772	1.46
1	1.954	N/A	N/A	152.4	5.772	1.46
1	2.931	N/A	N/A	152.4	5.772	1.46
1	3.908	N/A	N/A	152.4	5.772	1.46
1	4.885	N/A	N/A	152.4	5.772	1.46
1	5.863	N/A	N/A	152.4	5.772	1.46
1	6.840	N/A	N/A	152.4	5.772	1.46
1	7.817	N/A	N/A	152.4	5.772	1.46
1	8.794	N/A	N/A	152.4	5.772	1.46
1	9.771L	N/A	N/A	152.4	5.772	1.46
1	9.771R	N/A	N/A	152.4	5.772	1.46
1	10.748	N/A	N/A	152.4	5.772	1.46
1	11.725	N/A	N/A	152.4	5.772	1.46
1	12.702	N/A	N/A	152.4	5.772	1.46
1	13.679	N/A	N/A	152.4	5.772	1.46
1	14.656	N/A	N/A	152.4	5.772	1.46
1	15.633	N/A	N/A	152.4	5.772	1.46
1	16.610	N/A	N/A	152.4	5.772	1.46
1	17.588	N/A	N/A	152.4	5.772	1.46

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SECTION PROPERTIES (cont.)

 ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2) (cont.)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	18.542L	N/A	N/A	152.4	5.772	N/A	1.46
1	18.542R	N/A	N/A	171.5	6.878	N/A	1.76
1	18.565	N/A	N/A	171.5	6.878	N/A	1.76
1	19.542	N/A	N/A	171.5	6.878	N/A	1.76

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial	Bearing	Shear	Shear	Web
1.00	1.00	Compression	on Pins	Connector	on Fillet	Crippling
		0.90	1.00	0.85	Weld Throat	0.80
					0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.000	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.542	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.000L	0.4	0.37	0.002
1	1.000R	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.542L	0.4	-0.37	0.002
1	18.542R	0.4	-0.37	0.002
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

Madawaska Moderate Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.000L	0.4	0.41	0.002
1	1.000R	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.542L	0.4	-0.41	0.002
1	18.542R	0.4	-0.41	0.002
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

Madawaska Moderate Stringer MainedOT Trucks 5-8
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.000L	0.8	0.78	0.004
1	1.000R	0.8	0.78	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.542L	0.8	-0.78	0.004
1	18.542R	0.8	-0.78	0.004
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	13.3	31.63	0.0	0.00
1	1.000L	13.6	31.58	0.0	0.00
1	1.000R	13.6	31.58	0.0	0.00
1	1.954	24.8	29.47	0.0	0.00

Madawaska Moderate Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	34.4	27.32	0.0	0.00
1	3.908	42.3	25.16	0.0	0.00
1	4.885	48.3	23.01	0.0	0.00
1	5.863	52.9	20.98	0.0	0.00
1	6.840	56.6	1.67	0.0	0.00
1	7.817	58.7	17.47	0.0	0.00
1	8.794	59.4	15.72	0.0	0.00
1	9.771L	58.7	-13.96	0.0	0.00
1	9.771R	58.7	-13.96	0.0	0.00
1	10.748	59.4	-15.72	0.0	0.00
1	11.725	58.7	-17.47	0.0	0.00
1	12.702	56.6	-19.23	0.0	0.00
1	13.679	52.9	-20.98	0.0	0.00
1	14.656	48.3	-23.01	0.0	0.00
1	15.633	42.3	-25.16	0.0	0.00
1	16.610	34.4	-27.32	0.0	0.00
1	17.588	24.8	-29.47	0.0	0.00
1	18.542L	13.6	-31.58	0.0	0.00
1	18.542R	13.6	-31.58	0.0	0.00
1	18.565	13.3	-31.63	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	33.78	0.0	0.00	0.0	0.000
1	0.977	31.63	13.3	-0.88	7.0	0.039
1	1.000L	31.58	13.6	-0.90	7.2	0.040
1	1.000R	31.58	13.6	-0.90	7.2	0.040
1	1.954	29.47	24.8	-1.76	13.3	0.078
1	2.931	27.32	34.4	-2.63	18.8	0.114
1	3.908	25.16	42.3	-3.51	23.6	0.146
1	4.885	23.01	48.3	-5.18	32.7	0.175
1	5.863	20.98	52.9	-6.94	40.8	0.198
1	6.840	19.23	56.6	-8.70	47.5	0.220
1	7.817	17.47	58.7	-10.45	52.7	0.237
1	8.794	15.72	59.4	-12.21	56.4	0.242
1	9.771L	13.96	58.7	-13.96	58.7	0.242
1	9.771R	13.96	58.7	-13.96	58.7	0.242
1	10.748	12.21	56.4	-15.72	59.4	0.242
1	11.725	10.45	52.7	-17.47	58.7	0.237
1	12.702	8.70	47.5	-19.23	56.6	0.220

Madawaska Moderate Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	6.94	40.8	-20.98	52.9	0.198
1	14.656	5.18	32.7	-23.01	48.3	0.175
1	15.633	3.51	23.6	-25.16	42.3	0.146
1	16.610	2.63	18.8	-27.32	34.4	0.114
1	17.588	1.76	13.3	-29.47	24.8	0.078
1	18.542L	0.90	7.2	-31.58	13.6	0.040
1	18.542R	0.90	7.2	-31.58	13.6	0.040
1	18.565	0.88	7.0	-31.63	13.3	0.039
1	19.542	0.00	0.0	-33.78	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	33.78	0.00	0.000000	-0.003865
2	33.78	0.00	0.003865	0.000000

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	42.33	0.00	0.00	0.00
2	42.33	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011264
2	0.011264	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	16.3	38.82	0.0	0.00
1	1.000L	16.7	38.75	0.0	0.00
1	1.000R	16.7	38.75	0.0	0.00
1	1.954	30.1	35.80	0.0	0.00

Madawaska Moderate Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	41.5	32.96	0.0	0.00
1	3.908	51.1	30.40	0.0	0.00
1	4.885	58.5	27.85	0.0	0.00
1	5.863	63.8	25.30	0.0	0.00
1	6.840	68.4	-0.88	0.0	0.00
1	7.817	73.8	13.65	0.0	0.00
1	8.794	77.0	11.09	0.0	0.00
1	9.771L	78.1	-8.54	0.0	0.00
1	9.771R	78.1	-8.54	0.0	0.00
1	10.748	77.0	-11.09	0.0	0.00
1	11.725	73.8	-13.65	0.0	0.00
1	12.702	68.4	-16.20	0.0	0.00
1	13.679	63.8	-25.30	0.0	0.00
1	14.656	58.5	-27.85	0.0	0.00
1	15.633	51.1	-30.40	0.0	0.00
1	16.610	41.5	-32.96	0.0	0.00
1	17.588	30.1	-35.80	0.0	0.00
1	18.542L	16.7	-38.75	0.0	0.00
1	18.542R	16.7	-38.75	0.0	0.00
1	18.565	16.3	-38.82	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	41.85	0.0	0.00	0.0	0.000
1	0.977	38.82	16.3	-0.85	6.8	0.053
1	1.000L	38.75	16.7	-0.87	7.0	0.054
1	1.000R	38.75	16.7	-0.87	7.0	0.054
1	1.954	35.80	30.1	-1.71	12.9	0.105
1	2.931	32.96	41.5	-2.56	18.3	0.154
1	3.908	30.40	51.1	-3.42	23.0	0.200
1	4.885	27.85	58.5	-5.04	31.8	0.240
1	5.863	25.30	63.8	-6.74	39.7	0.274
1	6.840	22.74	66.9	-8.45	46.1	0.300
1	7.817	20.19	67.9	-10.15	51.2	0.320
1	8.794	17.64	66.7	-12.53	57.9	0.334
1	9.771L	15.08	63.4	-15.08	63.4	0.338
1	9.771R	15.08	63.4	-15.08	63.4	0.338
1	10.748	12.53	57.9	-17.64	66.7	0.334
1	11.725	10.15	51.2	-20.19	67.9	0.320
1	12.702	8.45	46.1	-22.74	66.9	0.300

Madawaska Moderate Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	6.74	39.7	-25.30	63.8	0.274
1	14.656	5.04	31.8	-27.85	58.5	0.240
1	15.633	3.42	23.0	-30.40	51.1	0.200
1	16.610	2.56	18.3	-32.96	41.5	0.154
1	17.588	1.71	12.9	-35.80	30.1	0.105
1	18.542L	0.87	7.0	-38.75	16.7	0.054
1	18.542R	0.87	7.0	-38.75	16.7	0.054
1	18.565	0.85	6.8	-38.82	16.3	0.053
1	19.542	0.00	0.0	-41.85	0.0	0.000

SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	41.85	0.00	0.000000	-0.005228
2	41.85	0.00	0.005228	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	52.45	0.00	0.00	0.00
2	52.45	0.00	0.00	0.00

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.015237
2	0.015237	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	14.1	33.61	0.0	0.00
1	1.000L	14.4	33.56	0.0	0.00
1	1.000R	14.4	33.56	0.0	0.00
1	1.954	26.3	31.24	0.0	0.00

Madawaska Moderate Stringer MainedOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	36.4	28.87	0.0	0.00
1	3.908	44.5	26.50	0.0	0.00
1	4.885	50.7	24.13	0.0	0.00
1	5.863	55.3	21.94	0.0	0.00
1	6.840	59.1	1.75	0.0	0.00
1	7.817	61.4	18.27	0.0	0.00
1	8.794	62.1	16.43	0.0	0.00
1	9.771L	61.3	-14.60	0.0	0.00
1	9.771R	61.3	-14.60	0.0	0.00
1	10.748	62.1	-16.43	0.0	0.00
1	11.725	61.4	-18.27	0.0	0.00
1	12.702	59.1	-20.10	0.0	0.00
1	13.679	55.3	-21.94	0.0	0.00
1	14.656	50.7	-24.13	0.0	0.00
1	15.633	44.5	-26.50	0.0	0.00
1	16.610	36.4	-28.87	0.0	0.00
1	17.588	26.3	-31.24	0.0	0.00
1	18.542L	14.4	-33.56	0.0	0.00
1	18.542R	14.4	-33.56	0.0	0.00
1	18.565	14.1	-33.61	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	35.98	0.0	0.00	0.0	0.000
1	0.977	33.61	14.1	-0.92	7.3	0.041
1	1.000L	33.56	14.4	-0.94	7.5	0.042
1	1.000R	33.56	14.4	-0.94	7.5	0.042
1	1.954	31.24	26.3	-1.84	13.9	0.082
1	2.931	28.87	36.4	-2.75	19.7	0.120
1	3.908	26.50	44.5	-3.67	24.7	0.154
1	4.885	24.13	50.7	-5.42	34.2	0.184
1	5.863	21.94	55.3	-7.26	42.7	0.209
1	6.840	20.10	59.1	-9.09	49.7	0.230
1	7.817	18.27	61.4	-10.93	55.1	0.248
1	8.794	16.43	62.1	-12.76	59.0	0.253
1	9.771L	14.60	61.3	-14.60	61.3	0.253
1	9.771R	14.60	61.3	-14.60	61.3	0.253
1	10.748	12.76	59.0	-16.43	62.1	0.253
1	11.725	10.93	55.1	-18.27	61.4	0.248
1	12.702	9.09	49.7	-20.10	59.1	0.230

Madawaska Moderate Stringer MainedOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	7.26	42.7	-21.94	55.3	0.209
1	14.656	5.42	34.2	-24.13	50.7	0.184
1	15.633	3.67	24.7	-26.50	44.5	0.154
1	16.610	2.75	19.7	-28.87	36.4	0.120
1	17.588	1.84	13.9	-31.24	26.3	0.082
1	18.542L	0.94	7.5	-33.56	14.4	0.042
1	18.542R	0.94	7.5	-33.56	14.4	0.042
1	18.565	0.92	7.3	-33.61	14.1	0.041
1	19.542	0.00	0.0	-35.98	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	35.98	0.00	0.000000	-0.004106
2	35.98	0.00	0.004106	0.000000

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	45.09	0.00	0.00	0.00
2	45.09	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.011966
2	0.011966	0.000000

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	9.6	22.96	0.0	0.00
1	1.000L	9.9	22.93	0.0	0.00
1	1.000R	9.9	22.93	0.0	0.00
1	1.954	18.0	21.47	0.0	0.00

Madawaska Moderate Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	2.931	25.2	19.98	0.0	0.00
1	3.908	31.1	18.49	0.0	0.00
1	4.885	35.7	16.99	0.0	0.00
1	5.863	39.1	15.50	0.0	0.00
1	6.840	41.2	-5.30	0.0	0.00
1	7.817	42.1	12.52	0.0	0.00
1	8.794	41.7	11.02	0.0	0.00
1	9.771L	40.6	-9.66	0.0	0.00
1	9.771R	40.6	-9.66	0.0	0.00
1	10.748	41.7	-11.02	0.0	0.00
1	11.725	42.1	-12.52	0.0	0.00
1	12.702	41.2	-14.01	0.0	0.00
1	13.679	39.1	-15.50	0.0	0.00
1	14.656	35.7	-16.99	0.0	0.00
1	15.633	31.1	-18.49	0.0	0.00
1	16.610	25.2	-19.98	0.0	0.00
1	17.588	18.0	-21.47	0.0	0.00
1	18.542L	9.9	-22.93	0.0	0.00
1	18.542R	9.9	-22.93	0.0	0.00
1	18.565	9.6	-22.96	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	24.45	0.0	0.00	0.0	0.000
1	0.977	22.96	9.6	-0.97	7.7	0.027
1	1.000L	22.93	9.9	-0.99	7.9	0.028
1	1.000R	22.93	9.9	-0.99	7.9	0.028
1	1.954	21.47	18.0	-1.93	14.6	0.053
1	2.931	19.98	25.2	-2.90	20.7	0.078
1	3.908	18.49	31.1	-3.86	26.0	0.101
1	4.885	16.99	35.7	-4.83	30.4	0.121
1	5.863	15.50	39.1	-5.79	34.1	0.138
1	6.840	14.01	41.2	-6.76	36.9	0.150
1	7.817	12.52	42.1	-7.72	38.9	0.159
1	8.794	11.02	41.7	-8.69	40.2	0.163
1	9.771L	9.66	40.6	-9.66	40.6	0.163
1	9.771R	9.66	40.6	-9.66	40.6	0.163
1	10.748	8.69	40.2	-11.02	41.7	0.163
1	11.725	7.72	38.9	-12.52	42.1	0.159
1	12.702	6.76	36.9	-14.01	41.2	0.150

Madawaska Moderate Stringer MainedOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	13.679	5.79	34.1	-15.50	39.1	0.138
1	14.656	4.83	30.4	-16.99	35.7	0.121
1	15.633	3.86	26.0	-18.49	31.1	0.101
1	16.610	2.90	20.7	-19.98	25.2	0.078
1	17.588	1.93	14.6	-21.47	18.0	0.053
1	18.542L	0.99	7.9	-22.93	9.9	0.028
1	18.542R	0.99	7.9	-22.93	9.9	0.028
1	18.565	0.97	7.7	-22.96	9.6	0.027
1	19.542	0.00	0.0	-24.45	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	24.45	0.00	0.000000	-0.002695
2	24.45	0.00	0.002695	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	30.65	0.00	0.00	0.00
2	30.65	0.00	0.00	0.00

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.007855
2	0.007855	0.000000

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-4.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.000L	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.0	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
		BOT	SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	BOT	STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	4.885	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	6.840	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
1	7.817	TOP	SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	8.794	TOP	SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
		BOT	STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	10.748	TOP	STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
			SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-IA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-III	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-IV	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			STR-V	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			SERV-II	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			SERV-IIA	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
			SERV-IIB	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.0	0.0
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-IA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-III	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-IV	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-V	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			SERV-II	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			SERV-IIA	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
		BOT	SERV-IIB	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-13.9	0.0
			STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0

Madawaska Moderate Stringer MainedOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	BOT	STR-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-III	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IV	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-V	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-II	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIA	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIB	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.3	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.4	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.2	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.7	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-III	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			STR-IV	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	17.588	TOP	STR-V	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-II	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIA	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
			SERV-IIB	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-III	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IV	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-V	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-II	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIA	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIB	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	18.542R	BOT	STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. Top Bm. Top S/R (ksi) (ksi) (ksi)	Compress. Limits* 0.6*f'c 0.85*f'c (ksi) (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	50.08	0.00 0.00 0.00	N/A** N/A**	
		STR-IA	POS.	0.0	1.09	0.00 0.00 0.00	N/A** N/A**	
		STR-II	POS.	0.0	1.09	0.00 0.00 0.00	N/A** N/A**	
		STR-III	POS.	0.0	1.09	0.00 0.00 0.00	N/A** N/A**	
		STR-IV	POS.	0.0	1.31	0.00 0.00 0.00	N/A** N/A**	
		STR-V	POS.	0.0	1.09	0.00 0.00 0.00	N/A** N/A**	
		SERV-I	POS.	0.0	0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-II	POS.	0.0	0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00 0.00 0.00	N/A** N/A**	
1	0.977	STR-I	POS.	20.3	46.84	5.91 -7.48 0.00	N/A** N/A**	
		STR-IA	POS.	1.0	0.98	0.30 -0.37 0.00	N/A** N/A**	
		STR-II	POS.	1.0	0.98	0.30 -0.37 0.00	N/A** N/A**	
		STR-III	POS.	1.0	0.98	0.30 -0.37 0.00	N/A** N/A**	
		STR-IV	POS.	1.2	1.18	0.35 -0.45 0.00	N/A** N/A**	
		STR-V	POS.	1.0	0.98	0.30 -0.37 0.00	N/A** N/A**	
		SERV-I	POS.	0.8	0.79	0.24 -0.30 0.00	N/A** N/A**	
		SERV-II	POS.	0.8	0.79	0.24 -0.30 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.8	0.79	0.24 -0.30 0.00	N/A** N/A**	
		SERV-IIB	POS.	0.8	0.79	0.24 -0.30 0.00	N/A** N/A**	
1	1.000L	STR-I	POS.	20.7	46.77	6.03 -7.65 0.00	N/A** N/A**	
		STR-IA	POS.	1.0	0.98	0.30 -0.38 0.00	N/A** N/A**	
		STR-II	POS.	1.0	0.98	0.30 -0.38 0.00	N/A** N/A**	
		STR-III	POS.	1.0	0.98	0.30 -0.38 0.00	N/A** N/A**	
		STR-IV	POS.	1.2	1.18	0.36 -0.46 0.00	N/A** N/A**	
		STR-V	POS.	1.0	0.98	0.30 -0.38 0.00	N/A** N/A**	
		SERV-I	POS.	0.8	0.78	0.24 -0.31 0.00	N/A** N/A**	
		SERV-II	POS.	0.8	0.78	0.24 -0.31 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.8	0.78	0.24 -0.31 0.00	N/A** N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	1.000L	SERV-IIB	POS.	0.8	0.78	0.24	-0.31	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	20.7	46.77	N/A*	-5.09	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	37.8	43.61	N/A*	-9.29	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	52.7	40.38	N/A*	-12.93	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	64.7	37.14	N/A*	-15.90	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.69	-0.67	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	4.885	STR-I	POS.	74.1	33.91	N/A*	-18.20	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	81.2	30.87	N/A*	-19.95	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	86.9	28.21	N/A*	-21.34	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	90.3	25.56	N/A*	-22.18	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	91.5	22.90	N/A*	-22.47	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	8.794	STR-II	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	90.4	20.25	N/A*	-22.21	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	90.4	20.25	N/A*	-22.21	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.57	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.31	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	1.08	-1.05	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	91.5	-22.90	N/A*	-22.47	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.56	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.30	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	1.07	-1.04	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	90.3	-25.56	N/A*	-22.18	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	STR-IV	POS.	6.2	-0.26	N/A*	-1.51	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.26	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	1.04	-1.01	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	86.9	-28.21	N/A*	-21.34	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.43	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.19	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.98	-0.96	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	81.2	-30.87	N/A*	-19.95	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.91	-0.88	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	74.1	-33.91	N/A*	-18.20	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.18	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.98	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.81	-0.79	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	64.7	-37.14	N/A*	-15.90	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-1.01	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.84	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	15.633	SERV-I	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	-0.52	0.69	-0.67	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	52.7	-40.38	N/A*	-12.93	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.80	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.67	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.55	-0.54	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	37.8	-43.61	N/A*	-9.29	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.57	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.47	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.39	-0.38	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	20.7	-46.77	N/A*	-5.09	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.31	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.25	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.21	-0.20	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	20.7	-46.77	N/A*	-4.21	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.78	0.17	-0.17	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MainedOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*				Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	18.542R	SERV-IIA	POS.	0.8	-0.78	0.17	-0.17	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.78	0.17	-0.17	0.00		N/A**	N/A**	
1	18.565	STR-I	POS.	20.3	-46.84	N/A*	-4.12	0.00		N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.25	0.00		N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.21	0.00		N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.16	-0.16	0.00		N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-50.08	N/A*	0.00	0.00		N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00		N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00		N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00		N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

Madawaska Moderate Stringer MainedOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	6.840	STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	12.702	STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IA	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-II	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-III	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
		STR-IV	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	18.542L	STR-V	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IA	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-II	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-III	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-IV	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
		STR-V	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	20.7	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	1.954	STR-I	POS.	152.4	37.8	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	
		STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	2.931	STR-I	POS.	152.4	52.7	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	3.908	STR-I	POS.	152.4	64.7	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	4.885	STR-I	POS.	152.4	74.1	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	5.863	STR-I	POS.	152.4	81.2	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	6.840	STR-I	POS.	152.4	86.9	D	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	6.840	STR-I	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	7.817	STR-I	POS.	152.4	90.3	D	
		STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	8.794	STR-I	POS.	152.4	91.5	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771L	STR-I	POS.	152.4	90.4	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	9.771R	STR-I	POS.	152.4	90.4	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.4	D	
		STR-V	POS.	152.4	5.3	D	
1	10.748	STR-I	POS.	152.4	91.5	D	
		STR-II	POS.	152.4	5.3	D	
		STR-III	POS.	152.4	5.3	D	
		STR-IV	POS.	152.4	6.3	D	
		STR-V	POS.	152.4	5.3	D	
1	11.725	STR-I	POS.	152.4	90.3	D	
		STR-II	POS.	152.4	5.1	D	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	11.725	STR-II	POS.	152.4	5.1	D	
		STR-III	POS.	152.4	5.1	D	
		STR-IV	POS.	152.4	6.2	D	
		STR-V	POS.	152.4	5.1	D	
1	12.702	STR-I	POS.	152.4	86.9	D	
		STR-IA	POS.	152.4	4.9	D	
		STR-II	POS.	152.4	4.9	D	
		STR-III	POS.	152.4	4.9	D	
		STR-IV	POS.	152.4	5.8	D	
		STR-V	POS.	152.4	4.9	D	
1	13.679	STR-I	POS.	152.4	81.2	D	
		STR-IA	POS.	152.4	4.5	D	
		STR-II	POS.	152.4	4.5	D	
		STR-III	POS.	152.4	4.5	D	
		STR-IV	POS.	152.4	5.4	D	
		STR-V	POS.	152.4	4.5	D	
1	14.656	STR-I	POS.	152.4	74.1	D	
		STR-IA	POS.	152.4	4.0	D	
		STR-II	POS.	152.4	4.0	D	
		STR-III	POS.	152.4	4.0	D	
		STR-IV	POS.	152.4	4.8	D	
		STR-V	POS.	152.4	4.0	D	
1	15.633	STR-I	POS.	152.4	64.7	D	
		STR-IA	POS.	152.4	3.4	D	
		STR-II	POS.	152.4	3.4	D	
		STR-III	POS.	152.4	3.4	D	
		STR-IV	POS.	152.4	4.1	D	
		STR-V	POS.	152.4	3.4	D	
1	16.610	STR-I	POS.	152.4	52.7	D	
		STR-IA	POS.	152.4	2.7	D	
		STR-II	POS.	152.4	2.7	D	
		STR-III	POS.	152.4	2.7	D	
		STR-IV	POS.	152.4	3.3	D	
		STR-V	POS.	152.4	2.7	D	
1	17.588	STR-I	POS.	152.4	37.8	D	
		STR-IA	POS.	152.4	1.9	D	
		STR-II	POS.	152.4	1.9	D	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	17.588	STR-III	POS.	152.4	1.9	D	
		STR-IV	POS.	152.4	2.3	D	
		STR-V	POS.	152.4	1.9	D	
1	18.542L	STR-I	POS.	152.4	20.7	D	
		STR-IA	POS.	152.4	1.0	D	
		STR-II	POS.	152.4	1.0	D	
		STR-III	POS.	152.4	1.0	D	
		STR-IV	POS.	152.4	1.2	D	
		STR-V	POS.	152.4	1.0	D	
1	18.542R	STR-I	POS.	171.5	20.7	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	18.565	STR-I	POS.	171.5	20.3	D	
		STR-IA	POS.	171.5	1.0	D	
		STR-II	POS.	171.5	1.0	D	
		STR-III	POS.	171.5	1.0	D	
		STR-IV	POS.	171.5	1.2	D	
		STR-V	POS.	171.5	1.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	
		STR-IA	POS.	171.5	0.0	D	
		STR-II	POS.	171.5	0.0	D	
		STR-III	POS.	171.5	0.0	D	
		STR-IV	POS.	171.5	0.0	D	
		STR-V	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress	Resistance Calculation	Code Check
					R _h *	R _b *	M _r (e)* (kip-ft)	F _r (ksi)	F ₊ * (ksi)	**	***
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	0.0	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.0	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.5	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-I	POS.	1.000	N/A	103.0	30.0	5.9	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
1	1.000L	TOP	STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-I	POS.	1.000	1.000	81.3	-30.0	-7.6	D	
			STR-IA	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-II	POS.	1.000	1.000	81.3	-30.0	-0.4	D	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations Rh*	Rb*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural +Lateral Stress F+* (ksi)	Resistance Calculation **	Code Check ***
1	1.000L	TOP	STR-III	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
			STR-IV	POS.	1.000	1.000	81.3	-30.0	-0.5	D	
			STR-V	POS.	1.000	1.000	81.3	-30.0	-0.4	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	6.0	G	
			STR-IA	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-II	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-III	POS.	1.000	N/A	103.0	30.0	0.3	G	
			STR-IV	POS.	1.000	N/A	103.0	30.0	0.4	G	
			STR-V	POS.	1.000	N/A	103.0	30.0	0.3	G	

* Legend of General Notes:

Rh = Hybrid factor

Rb = Load shedding factor (only applies to compression flange)

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress

due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or

A6.10.8.1.2-1) and/or user input lateral effects

w = Value for F+ includes lateral load effects

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked,
but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	0.000	TOP	STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	4.885	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	9.771R	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	16.610	TOP	STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-V	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.201	16.92	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.201	16.92	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	7.0	3.52	13.23	1.300	16.92	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.201	16.95	1.201	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IA	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-II	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-III	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248
			STR-IV	P	1.4	1.000	1.000	6.9	3.53	13.26	1.300	16.95	1.300	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc
under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either
flange under uniform bending with consideration of compression-flange residual
stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e) (kip-ft)	* Fr (ksi)	* Mr (kip-ft)	Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Governing Mr (kip-ft)	* Governing Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-22.5	N/A	
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
1	0.977	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-22.5	N/A	
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
1	1.000L	TOP	STR-I	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-22.5	N/A	
			STR-IA	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-II	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-III	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
			STR-IV	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.6	N/A	
			STR-V	P	-23.4 B	63.	-23.4 B	N/A	H	N/A	H	N/A	-1.3	N/A	
1	1.000R	TOP	STR-I	P	-24.2 B	95.	-23.4 B	N/A	H	N/A	H	N/A	-22.5	N/A	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Fr (ksi)			
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	N/A	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)		
1	6.840	TOP	STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-22.5	N/A	
			STR-IA	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-II	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-III	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
			STR-IV	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.6	N/A	
			STR-V	P	-24.2	B	95.	-23.4	B	N/A	H	N/A	H	-1.3	N/A	
1	9.771R	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	10.748	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
1	11.725	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	11.725	TOP	STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	12.702	TOP	STR-I	P	-29.1	B	118.	-29.1	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	13.679	TOP	STR-I	P	-29.1	B	118.	-29.1	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	14.656	TOP	STR-I	P	-29.1	B	118.	-29.1	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	15.633	TOP	STR-I	P	-29.1	B	118.	-29.1	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	16.610	TOP	STR-I	P	-29.1	B	118.	-29.1	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
1	17.588	TOP	STR-I	P	-29.1	B	118.	-29.1	146.	E	146.	E	N/A	91.	
			STR-IA	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-II	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-III	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	
			STR-IV	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.6	N/A	
			STR-V	P	-30.0	B	122.	-30.0	152.	E	152.	E	-1.3	N/A	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local	Governing	Local	Governing	Stress	Moment					
					Fr (ksi)	* Mr(e)** (kip-ft)	Fr (ksi)	* Mr (kip-ft)	F+** (ksi)	M+** (kip-ft)					
1	18.542L	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.542R	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	18.565	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
1	19.542	TOP	STR-I	P	-29.1	B	118.	-29.1	B	146.	E	146.	E	N/A	91.
			STR-IA	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-II	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-III	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A
			STR-IV	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.6	N/A
			STR-V	P	-30.0	B	122.	-30.0	B	152.	E	152.	E	-1.3	N/A

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = fbu + (1/3)*fl, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.0	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	
1	1.000L	TOP	SERV-II	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	65.0	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	65.0	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIA	POS.	1.000	82.4	24.0	0.2	C	
			SERV-IIB	POS.	1.000	82.4	24.0	0.2	C	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	1.000R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	2.931	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	3.908	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	4.885	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	5.863	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	6.840	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	6.840	TOP	SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	7.817	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	8.794	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	9.771R	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	10.748	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.1	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.1	C	
1	11.725	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	11.725	BOT	SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	12.702	TOP	SERV-II	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-1.0	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-1.0	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIA	POS.	1.000	95.0	24.0	1.0	C	
			SERV-IIB	POS.	1.000	95.0	24.0	1.0	C	
1	13.679	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.9	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.9	C	
1	14.656	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.8	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.8	C	
1	15.633	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.7	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.7	C	
1	16.610	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.6	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.6	C	
1	17.588	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.4	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.4	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.4	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.4	C	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	17.588	BOT	SERV-IIB	POS.	1.000	95.0	24.0	0.4	C	
1	18.542L	TOP	SERV-II	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	97.7	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	97.7	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIA	POS.	1.000	95.0	24.0	0.2	C	
			SERV-IIB	POS.	1.000	95.0	24.0	0.2	C	
1	18.542R	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	18.565	TOP	SERV-II	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	118.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	118.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	0.0	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000L	TOP	SERV-II	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIA	POS.	7.76	1.000	81.3	-30.0	-0.3	
		TOP	SERV-IIB	POS.	7.76	1.000	81.3	-30.0	-0.3	
1	1.000R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	
1	2.931	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	4.885	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	5.863	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	6.840	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	7.817	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	9.771R	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	10.748	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	11.725	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	12.702	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-1.0	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-1.0	
1	13.679	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.9	
1	14.656	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.8	
1	15.633	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.7	
1	16.610	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.4	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.4	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.542L	TOP	SERV-II	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.92	1.000	122.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.92	1.000	122.1	-30.0	-0.2	
1	18.542R	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	18.565	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.88	1.000	147.6	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.88	1.000	147.6	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
 flexure in which the web satisfies the requirement of LRFD
 Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	60.74	50.08	U	
		STR-IA	60.74	1.09	U	
		STR-II	60.74	1.09	U	
		STR-III	60.74	1.09	U	
		STR-IV	60.74	1.31	U	
		STR-V	60.74	1.09	U	
1	0.977	STR-I	60.74	46.84	U	
		STR-IA	60.74	0.98	U	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.977	STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000L	STR-I	60.74	46.77	U	
		STR-IA	60.74	0.98	U	
		STR-II	60.74	0.98	U	
		STR-III	60.74	0.98	U	
		STR-IV	60.74	1.18	U	
		STR-V	60.74	0.98	U	
1	1.000R	STR-I	88.35	46.77	U	
		STR-IA	88.35	0.98	U	
		STR-II	88.35	0.98	U	
		STR-III	88.35	0.98	U	
		STR-IV	88.35	1.18	U	
		STR-V	88.35	0.98	U	
1	1.954	STR-I	88.35	43.61	U	
		STR-IA	88.35	0.87	U	
		STR-II	88.35	0.87	U	
		STR-III	88.35	0.87	U	
		STR-IV	88.35	1.05	U	
		STR-V	88.35	0.87	U	
1	2.931	STR-I	88.35	40.38	U	
		STR-IA	88.35	0.77	U	
		STR-II	88.35	0.77	U	
		STR-III	88.35	0.77	U	
		STR-IV	88.35	0.92	U	
		STR-V	88.35	0.77	U	
1	3.908	STR-I	88.35	37.14	U	
		STR-IA	88.35	0.66	U	
		STR-II	88.35	0.66	U	
		STR-III	88.35	0.66	U	
		STR-IV	88.35	0.79	U	
		STR-V	88.35	0.66	U	
1	4.885	STR-I	88.35	33.91	U	
		STR-IA	88.35	0.55	U	
		STR-II	88.35	0.55	U	
		STR-III	88.35	0.55	U	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	4.885	STR-IV	88.35	0.66	U	
		STR-V	88.35	0.55	U	
1	5.863	STR-I	88.35	30.87	U	
		STR-IA	88.35	0.44	U	
		STR-II	88.35	0.44	U	
		STR-III	88.35	0.44	U	
		STR-IV	88.35	0.52	U	
		STR-V	88.35	0.44	U	
1	6.840	STR-I	88.35	28.21	U	
		STR-IA	88.35	0.33	U	
		STR-II	88.35	0.33	U	
		STR-III	88.35	0.33	U	
		STR-IV	88.35	0.39	U	
		STR-V	88.35	0.33	U	
1	7.817	STR-I	88.35	25.56	U	
		STR-IA	88.35	0.22	U	
		STR-II	88.35	0.22	U	
		STR-III	88.35	0.22	U	
		STR-IV	88.35	0.26	U	
		STR-V	88.35	0.22	U	
1	8.794	STR-I	88.35	22.90	U	
		STR-IA	88.35	0.11	U	
		STR-II	88.35	0.11	U	
		STR-III	88.35	0.11	U	
		STR-IV	88.35	0.13	U	
		STR-V	88.35	0.11	U	
1	9.771L	STR-I	88.35	20.25	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	
		STR-V	88.35	0.00	U	
1	9.771R	STR-I	88.35	20.25	U	
		STR-IA	88.35	0.00	U	
		STR-II	88.35	0.00	U	
		STR-III	88.35	0.00	U	
		STR-IV	88.35	0.00	U	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	9.771R	STR-V	88.35	0.00	U	
1	10.748	STR-I	88.35	-22.90	U	
		STR-IA	88.35	-0.11	U	
		STR-II	88.35	-0.11	U	
		STR-III	88.35	-0.11	U	
		STR-IV	88.35	-0.13	U	
		STR-V	88.35	-0.11	U	
1	11.725	STR-I	88.35	-25.56	U	
		STR-IA	88.35	-0.22	U	
		STR-II	88.35	-0.22	U	
		STR-III	88.35	-0.22	U	
		STR-IV	88.35	-0.26	U	
		STR-V	88.35	-0.22	U	
1	12.702	STR-I	88.35	-28.21	U	
		STR-IA	88.35	-0.33	U	
		STR-II	88.35	-0.33	U	
		STR-III	88.35	-0.33	U	
		STR-IV	88.35	-0.39	U	
		STR-V	88.35	-0.33	U	
1	13.679	STR-I	88.35	-30.87	U	
		STR-IA	88.35	-0.44	U	
		STR-II	88.35	-0.44	U	
		STR-III	88.35	-0.44	U	
		STR-IV	88.35	-0.52	U	
		STR-V	88.35	-0.44	U	
1	14.656	STR-I	88.35	-33.91	U	
		STR-IA	88.35	-0.55	U	
		STR-II	88.35	-0.55	U	
		STR-III	88.35	-0.55	U	
		STR-IV	88.35	-0.66	U	
		STR-V	88.35	-0.55	U	
1	15.633	STR-I	88.35	-37.14	U	
		STR-IA	88.35	-0.66	U	
		STR-II	88.35	-0.66	U	
		STR-III	88.35	-0.66	U	
		STR-IV	88.35	-0.79	U	
		STR-V	88.35	-0.66	U	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	16.610	STR-I	88.35	-40.38	U	
		STR-IA	88.35	-0.77	U	
		STR-II	88.35	-0.77	U	
		STR-III	88.35	-0.77	U	
		STR-IV	88.35	-0.92	U	
		STR-V	88.35	-0.77	U	
1	17.588	STR-I	88.35	-43.61	U	
		STR-IA	88.35	-0.87	U	
		STR-II	88.35	-0.87	U	
		STR-III	88.35	-0.87	U	
		STR-IV	88.35	-1.05	U	
		STR-V	88.35	-0.87	U	
1	18.542L	STR-I	88.35	-46.77	U	
		STR-IA	88.35	-0.98	U	
		STR-II	88.35	-0.98	U	
		STR-III	88.35	-0.98	U	
		STR-IV	88.35	-1.18	U	
		STR-V	88.35	-0.98	U	
1	18.542R	STR-I	98.14	-46.77	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	18.565	STR-I	98.14	-46.84	U	
		STR-IA	98.14	-0.98	U	
		STR-II	98.14	-0.98	U	
		STR-III	98.14	-0.98	U	
		STR-IV	98.14	-1.18	U	
		STR-V	98.14	-0.98	U	
1	19.542	STR-I	98.14	-50.08	U	
		STR-IA	98.14	-1.09	U	
		STR-II	98.14	-1.09	U	
		STR-III	98.14	-1.09	U	
		STR-IV	98.14	-1.31	U	
		STR-V	98.14	-1.09	U	

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.043	45.9	1	0.000	STR-I
	Shear		1.218	53.6	1	0.000	STR-I
	Controlling		1.043	45.9	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	146.	5.	86.	1.629*	
1	10.748	STR-I	POS.	146.	5.	86.	1.629*	
1	11.725	STR-I	POS.	146.	5.	86.	1.629*	
1	12.702	STR-I	POS.	146.	5.	86.	1.629*	
1	13.679	STR-I	POS.	146.	5.	86.	1.629*	
1	14.656	STR-I	POS.	146.	5.	86.	1.629*	
1	15.633	STR-I	POS.	146.	5.	86.	1.629*	
1	16.610	STR-I	POS.	146.	5.	86.	1.629*	
1	17.588	STR-I	POS.	146.	5.	86.	1.629*	
1	18.542L	STR-I	POS.	146.	5.	86.	1.629*	
1	18.542R	STR-I	POS.	146.	5.	86.	1.628*	
1	18.565	STR-I	POS.	146.	5.	86.	1.628*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
		BOT	STR-I	POS.	30.0	0.3	5.6	5.294	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
		BOT	STR-I	POS.	30.0	0.3	5.7	5.180	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-21.2	1.043*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	48.98	1.218	
1	0.977	STR-I	POS.	60.74	0.98	45.86	1.303	
1	1.000L	STR-I	POS.	60.74	0.98	45.79	1.305	
1	1.000R	STR-I	POS.	88.35	0.98	45.79	1.908	
1	1.954	STR-I	POS.	88.35	0.87	42.73	2.047	
1	2.931	STR-I	POS.	88.35	0.77	39.61	2.211	
1	3.908	STR-I	POS.	88.35	0.66	36.49	2.403	
1	4.885	STR-I	POS.	88.35	0.55	33.36	2.632	
1	5.863	STR-I	POS.	88.35	0.44	30.43	2.889	
1	6.840	STR-I	POS.	88.35	0.33	27.88	3.157	
1	7.817	STR-I	POS.	88.35	0.22	25.34	3.478	
1	8.794	STR-I	POS.	88.35	0.11	22.79	3.872	
1	9.771L	STR-I	POS.	88.35	0.00	20.25	4.364	
1	9.771R	STR-I	POS.	88.35	0.00	20.25	4.364	
1	10.748	STR-I	NEG.	88.35	-0.11	-22.79	3.872	
1	11.725	STR-I	NEG.	88.35	-0.22	-25.34	3.478	
1	12.702	STR-I	NEG.	88.35	-0.33	-27.88	3.157	
1	13.679	STR-I	NEG.	88.35	-0.44	-30.43	2.889	
1	14.656	STR-I	NEG.	88.35	-0.55	-33.36	2.632	
1	15.633	STR-I	NEG.	88.35	-0.66	-36.49	2.403	
1	16.610	STR-I	NEG.	88.35	-0.77	-39.61	2.211	
1	17.588	STR-I	NEG.	88.35	-0.87	-42.73	2.047	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-45.79	1.908	
1	18.542R	STR-I	NEG.	98.14	-0.98	-45.79	2.122	
1	18.565	STR-I	NEG.	98.14	-0.98	-45.86	2.118	
1	19.542	STR-I	NEG.	98.14	-1.09	-48.98	1.981	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.7	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.9	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.6	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.7	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-16.8	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	17.3	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.6	0.0
1	8.794	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.9	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.4	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.2	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.7	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-19.2	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.7	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.9	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	19.4	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-18.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	18.6	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-16.8	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	17.3	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.7	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.8	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	7.6	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-4.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.3	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	61.78	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.7	57.28	7.18	-9.10	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	25.2	57.17	7.34	-9.30	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	25.2	57.17	N/A*	-6.19	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.5	52.78	N/A*	-11.19	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.0	48.55	N/A*	-15.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	77.5	44.74	N/A*	-19.04	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	88.8	40.93	N/A*	-21.83	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	97.0	37.12	N/A*	-23.82	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	104.0	33.31	N/A*	-25.56	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	29.49	N/A*	-27.54	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	116.9	25.68	N/A*	-28.72	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	118.5	21.87	N/A*	-29.12	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	118.5	21.87	N/A*	-29.12	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	116.9	-25.68	N/A*	-28.72	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-29.49	N/A*	-27.54	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	104.0	-33.31	N/A*	-25.56	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	97.0	-37.12	N/A*	-23.82	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	88.8	-40.93	N/A*	-21.83	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	77.5	-44.74	N/A*	-19.04	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	16.610	STR-I	POS.	63.0	-48.55	N/A*	-15.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.5	-52.78	N/A*	-11.19	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	25.2	-57.17	N/A*	-6.19	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	25.2	-57.17	N/A*	-5.12	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.7	-57.28	N/A*	-5.01	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-61.78	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	25.2	D	
1	1.954	STR-I	POS.	152.4	45.5	D	
1	2.931	STR-I	POS.	152.4	63.0	D	
1	3.908	STR-I	POS.	152.4	77.5	D	
1	4.885	STR-I	POS.	152.4	88.8	D	
1	5.863	STR-I	POS.	152.4	97.0	D	
1	6.840	STR-I	POS.	152.4	104.0	D	
1	7.817	STR-I	POS.	152.4	112.1	D	
1	8.794	STR-I	POS.	152.4	116.9	D	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	152.4	118.5	D	
1	9.771R	STR-I	POS.	152.4	118.5	D	
1	10.748	STR-I	POS.	152.4	116.9	D	
1	11.725	STR-I	POS.	152.4	112.1	D	
1	12.702	STR-I	POS.	152.4	104.0	D	
1	13.679	STR-I	POS.	152.4	97.0	D	
1	14.656	STR-I	POS.	152.4	88.8	D	
1	15.633	STR-I	POS.	152.4	77.5	D	
1	16.610	STR-I	POS.	152.4	63.0	D	
1	17.588	STR-I	POS.	152.4	45.5	D	
1	18.542L	STR-I	POS.	152.4	25.2	D	
1	18.542R	STR-I	POS.	171.5	25.2	D	
1	18.565	STR-I	POS.	171.5	24.7	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_+	Resistance Calculation **	Code Check ***
					R_h^*	R_b^*	$M_r(e)^*$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-9.1	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	7.2	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-9.3	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	7.3	G	

* Legend of General Notes:

- R_h = Hybrid factor
- R_b = Load shedding factor (only applies to compression flange)
- $M_r(e)$ = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, F_r
- F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F_+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.301	16.92	1.301	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.301	16.92	1.301	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.301	16.95	1.301	122.1	1.248

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-29.1	N/A	A
1	9.771R	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	10.748	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	11.725	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	12.702	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	13.679	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	14.656	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	15.633	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	16.610	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	
1	17.588	TOP	STR-I	P	-30.0	B	122.	-30.0	152.	E	152.	E	N/A	119.	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3															Appendix A				Factored Effects		Code
Span		Limit		Flexural Resistance								Flexural Resistance				Flexural+Lateral		Chk			
No.	Dist.	T/B	State	Flx	Local	*	Governing	*	Local	*	Governing	*	Local	*	Stress	Moment	***				
	(ft)				Fr		Mr(e)**	Fr	Mr		Mr		Mr		F+**	M+**					
					(ksi)		(kip-ft)	(ksi)	(kip-ft)		(kip-ft)		(kip-ft)		(ksi)	(kip-ft)					
1	18.542L	TOP	STR-I	P	-30.0	B	122.	-30.0	B		152.	E	152.	E	N/A	119.					
1	18.542R	TOP	STR-I	P	-30.0	B	122.	-30.0	B		152.	E	152.	E	N/A	119.					
1	18.565	TOP	STR-I	P	-30.0	B	122.	-30.0	B		152.	E	152.	E	N/A	119.					
1	19.542	TOP	STR-I	P	-30.0	B	122.	-30.0	B		152.	E	152.	E	N/A	119.					

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	60.74	61.78	U	A
1	0.977	STR-I	60.74	57.28	U	
1	1.000L	STR-I	60.74	57.17	U	
1	1.000R	STR-I	88.35	57.17	U	
1	1.954	STR-I	88.35	52.78	U	
1	2.931	STR-I	88.35	48.55	U	
1	3.908	STR-I	88.35	44.74	U	
1	4.885	STR-I	88.35	40.93	U	
1	5.863	STR-I	88.35	37.12	U	
1	6.840	STR-I	88.35	33.31	U	
1	7.817	STR-I	88.35	29.49	U	
1	8.794	STR-I	88.35	25.68	U	
1	9.771L	STR-I	88.35	21.87	U	
1	9.771R	STR-I	88.35	21.87	U	
1	10.748	STR-I	88.35	-25.68	U	
1	11.725	STR-I	88.35	-29.49	U	
1	12.702	STR-I	88.35	-33.31	U	

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	88.35	-37.12	U	
1	14.656	STR-I	88.35	-40.93	U	
1	15.633	STR-I	88.35	-44.74	U	
1	16.610	STR-I	88.35	-48.55	U	
1	17.588	STR-I	88.35	-52.78	U	
1	18.542L	STR-I	88.35	-57.17	U	
1	18.542R	STR-I	98.14	-57.17	U	
1	18.565	STR-I	98.14	-57.28	U	
1	19.542	STR-I	98.14	-61.78	U	

* Legend of Code Checks:

- A. Insufficient shear resistance
- B. D/tw has exceeded limit of 150 for unstiffened webs
- C. D/tw has exceeded limit of 300 for stiffened webs

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.794	30.1	1	0.000	STR-I
	Shear		0.983	37.3	1	0.000	STR-I
	Controlling		0.794	30.1	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	152.	5.	113.	1.299	
1	10.748	STR-I	POS.	152.	5.	113.	1.299*	
1	11.725	STR-I	POS.	152.	5.	113.	1.299*	
1	12.702	STR-I	POS.	152.	5.	113.	1.299*	
1	13.679	STR-I	POS.	152.	5.	113.	1.299*	
1	14.656	STR-I	POS.	152.	5.	113.	1.299*	
1	15.633	STR-I	POS.	152.	5.	113.	1.299*	
1	16.610	STR-I	POS.	152.	5.	113.	1.299*	
1	17.588	STR-I	POS.	152.	5.	113.	1.299*	
1	18.542L	STR-I	POS.	152.	5.	113.	1.299*	
1	18.542R	STR-I	POS.	152.	5.	113.	1.299*	
1	18.565	STR-I	POS.	152.	5.	113.	1.299*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-27.8 6.9	0.794* 4.313	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-27.8 7.0	0.794* 4.221	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-27.8	0.794*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	60.69	0.983	C
1	0.977	STR-I	POS.	60.74	0.98	56.30	1.061	
1	1.000L	STR-I	POS.	60.74	0.98	56.19	1.063	
1	1.000R	STR-I	POS.	88.35	0.98	56.19	1.555	
1	1.954	STR-I	POS.	88.35	0.87	51.90	1.685	
1	2.931	STR-I	POS.	88.35	0.77	47.79	1.833	
1	3.908	STR-I	POS.	88.35	0.66	44.09	1.989	
1	4.885	STR-I	POS.	88.35	0.55	40.38	2.174	
1	5.863	STR-I	POS.	88.35	0.44	36.68	2.397	
1	6.840	STR-I	POS.	88.35	0.33	32.98	2.669	
1	7.817	STR-I	POS.	88.35	0.22	29.27	3.010	
1	8.794	STR-I	POS.	88.35	0.11	25.57	3.451	
1	9.771L	STR-I	POS.	88.35	0.00	21.87	4.040	
1	9.771R	STR-I	POS.	88.35	0.00	21.87	4.040	
1	10.748	STR-I	NEG.	88.35	-0.11	-25.57	3.451	
1	11.725	STR-I	NEG.	88.35	-0.22	-29.27	3.010	
1	12.702	STR-I	NEG.	88.35	-0.33	-32.98	2.669	
1	13.679	STR-I	NEG.	88.35	-0.44	-36.68	2.397	
1	14.656	STR-I	NEG.	88.35	-0.55	-40.38	2.174	
1	15.633	STR-I	NEG.	88.35	-0.66	-44.09	1.989	
1	16.610	STR-I	NEG.	88.35	-0.77	-47.79	1.833	
1	17.588	STR-I	NEG.	88.35	-0.87	-51.90	1.685	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-56.19	1.555	
1	18.542R	STR-I	NEG.	98.14	-0.98	-56.19	1.729	
1	18.565	STR-I	NEG.	98.14	-0.98	-56.30	1.726	
1	19.542	STR-I	NEG.	98.14	-1.09	-60.69	1.599	

* Legend of Rating Failure:

- A. D/tw has exceeded limit of 150 for unstiffened webs
- B. D/tw has exceeded limit of 300 for stiffened webs
- C. Rating factor is less than 1.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.2	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.1	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	4.2	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.8	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.0	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	8.794	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.7	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	15.7	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-15.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	15.5	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-14.5	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	14.9	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	14.0	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.8	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.2	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	6.6	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.6	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.9	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

USER INPUT LATERAL STRESSES

This output report is not applicable because no user
input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	53.27	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.72	6.26	-7.93	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	22.0	49.64	6.39	-8.10	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	22.0	49.64	N/A*	-5.40	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.0	46.18	N/A*	-9.82	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	55.5	42.63	N/A*	-13.63	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	68.0	39.09	N/A*	-16.71	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	77.5	35.54	N/A*	-19.04	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	84.7	32.25	N/A*	-20.80	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	90.6	29.48	N/A*	-22.26	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	94.2	26.71	N/A*	-23.13	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	95.4	23.94	N/A*	-23.43	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	94.3	21.17	N/A*	-23.16	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	94.3	21.17	N/A*	-23.16	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	95.4	-23.94	N/A*	-23.43	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	94.2	-26.71	N/A*	-23.13	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	90.6	-29.48	N/A*	-22.26	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	84.7	-32.25	N/A*	-20.80	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	77.5	-35.54	N/A*	-19.04	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	68.0	-39.09	N/A*	-16.71	0.00	N/A**	N/A**	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. $0.6 \cdot f'_c$ (ksi)	Limits* $0.85 \cdot f'_c$ (ksi)	Code Chk**
1	16.610	STR-I	POS.	55.5	-42.63	N/A*	-13.63	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.0	-46.18	N/A*	-9.82	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	22.0	-49.64	N/A*	-5.40	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	22.0	-49.64	N/A*	-4.46	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.72	N/A*	-4.37	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-53.27	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	22.0	D	
1	1.954	STR-I	POS.	152.4	40.0	D	
1	2.931	STR-I	POS.	152.4	55.5	D	
1	3.908	STR-I	POS.	152.4	68.0	D	
1	4.885	STR-I	POS.	152.4	77.5	D	
1	5.863	STR-I	POS.	152.4	84.7	D	
1	6.840	STR-I	POS.	152.4	90.6	D	
1	7.817	STR-I	POS.	152.4	94.2	D	
1	8.794	STR-I	POS.	152.4	95.4	D	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	152.4	94.3	D	
1	9.771R	STR-I	POS.	152.4	94.3	D	
1	10.748	STR-I	POS.	152.4	95.4	D	
1	11.725	STR-I	POS.	152.4	94.2	D	
1	12.702	STR-I	POS.	152.4	90.6	D	
1	13.679	STR-I	POS.	152.4	84.7	D	
1	14.656	STR-I	POS.	152.4	77.5	D	
1	15.633	STR-I	POS.	152.4	68.0	D	
1	16.610	STR-I	POS.	152.4	55.5	D	
1	17.588	STR-I	POS.	152.4	40.0	D	
1	18.542L	STR-I	POS.	152.4	22.0	D	
1	18.542R	STR-I	POS.	171.5	22.0	D	
1	18.565	STR-I	POS.	171.5	21.5	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_+	Resistance Calculation **	Code Check ***
					R_h^*	R_b^*	$M_r(e)^*$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-7.9	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	6.3	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-8.1	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	6.4	G	

* Legend of General Notes:

- R_h = Hybrid factor
- R_b = Load shedding factor (only applies to compression flange)
- $M_r(e)$ = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, F_r
- F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F_+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
										Lr*	Cb*				
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.198	16.92	1.198	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.198	16.92	1.198	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.198	16.95	1.198	122.1	1.248

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-23.4	N/A	A
1	9.771R	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	10.748	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	11.725	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	12.702	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	13.679	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	14.656	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	15.633	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	16.610	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	
1	17.588	TOP	STR-I	P	-29.0	B	118.	-29.0	145.	E	145.	E	N/A	95.	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3															Appendix A				Factored Effects		Code
Span		Limit		Flexural Resistance						Flexural Resistance						Flexural+Lateral		Chk			
No.	Dist.	T/B	State	Flx	Local	*	Governing	*	Local	*	Governing	*	Local	*	Stress	Moment	***				
	(ft)				Fr		Mr(e)**	Fr	Mr		Mr		Mr		F+**	M+**					
					(ksi)		(kip-ft)	(ksi)	(kip-ft)		(kip-ft)		(kip-ft)		(ksi)	(kip-ft)					
1	18.542L	TOP	STR-I	P	-29.0	B	118.	-29.0	B		145.	E	145.	E	N/A	95.					
1	18.542R	TOP	STR-I	P	-29.0	B	118.	-29.0	B		145.	E	145.	E	N/A	95.					
1	18.565	TOP	STR-I	P	-29.0	B	118.	-29.0	B		145.	E	145.	E	N/A	95.					
1	19.542	TOP	STR-I	P	-29.0	B	118.	-29.0	B		145.	E	145.	E	N/A	95.					

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

*** Legend of Code Check:

A. Insufficient flexural resistance

B. Based on the total stress in the bottom flange, this section is analyzed for positive flexure, so the top flange capacity is based on compression. However, the total factored stress (F+) in the top flange is tensile. The user should verify the acceptability of the section by comparing the top flange stress (F+) to the flexural resistance (Fr) of the top flange in negative flexure.

C. The unbraced range containing this analysis point varies in depth and has a flange transition more than one foot away from the ends of the unbraced range.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	60.74	53.27	U	
1	0.977	STR-I	60.74	49.72	U	
1	1.000L	STR-I	60.74	49.64	U	
1	1.000R	STR-I	88.35	49.64	U	
1	1.954	STR-I	88.35	46.18	U	
1	2.931	STR-I	88.35	42.63	U	
1	3.908	STR-I	88.35	39.09	U	
1	4.885	STR-I	88.35	35.54	U	
1	5.863	STR-I	88.35	32.25	U	
1	6.840	STR-I	88.35	29.48	U	
1	7.817	STR-I	88.35	26.71	U	
1	8.794	STR-I	88.35	23.94	U	
1	9.771L	STR-I	88.35	21.17	U	
1	9.771R	STR-I	88.35	21.17	U	
1	10.748	STR-I	88.35	-23.94	U	
1	11.725	STR-I	88.35	-26.71	U	
1	12.702	STR-I	88.35	-29.48	U	

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	88.35	-32.25	U	
1	14.656	STR-I	88.35	-35.54	U	
1	15.633	STR-I	88.35	-39.09	U	
1	16.610	STR-I	88.35	-42.63	U	
1	17.588	STR-I	88.35	-46.18	U	
1	18.542L	STR-I	88.35	-49.64	U	
1	18.542R	STR-I	98.14	-49.64	U	
1	18.565	STR-I	98.14	-49.72	U	
1	19.542	STR-I	98.14	-53.27	U	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	0.998	29.6	1	0.000	STR-I
	Shear		1.143	34.0	1	0.000	STR-I
	Controlling		0.998	29.6	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	145.	5.	90.	1.554*	
1	10.748	STR-I	POS.	145.	5.	90.	1.554*	
1	11.725	STR-I	POS.	145.	5.	90.	1.554*	
1	12.702	STR-I	POS.	145.	5.	90.	1.554*	
1	13.679	STR-I	POS.	145.	5.	90.	1.554*	
1	14.656	STR-I	POS.	145.	5.	90.	1.554*	
1	15.633	STR-I	POS.	145.	5.	90.	1.554*	
1	16.610	STR-I	POS.	145.	5.	90.	1.554*	
1	17.588	STR-I	POS.	145.	5.	90.	1.554*	
1	18.542L	STR-I	POS.	145.	5.	90.	1.554*	
1	18.542R	STR-I	POS.	145.	5.	90.	1.552*	
1	18.565	STR-I	POS.	145.	5.	90.	1.552*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-22.1 6.0	0.998* 4.982	D
1	1.000L	TOP BOT	STR-I STR-I	POS. POS.	-23.4 30.0	-1.3 0.3	-22.1 6.1	0.998* 4.874	D
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-22.1	0.998*	D

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

** Legend of Rating Failures:

- A. Section fails web proportion check
- B. Section fails one or more flange proportion checks
- C. Section fails ductility check
- D. Rating factor is less than 1.0

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	52.18	1.143	
1	0.977	STR-I	POS.	60.74	0.98	48.74	1.226	
1	1.000L	STR-I	POS.	60.74	0.98	48.66	1.228	
1	1.000R	STR-I	POS.	88.35	0.98	48.66	1.795	
1	1.954	STR-I	POS.	88.35	0.87	45.30	1.931	
1	2.931	STR-I	POS.	88.35	0.77	41.87	2.092	
1	3.908	STR-I	POS.	88.35	0.66	38.43	2.282	
1	4.885	STR-I	POS.	88.35	0.55	34.99	2.509	
1	5.863	STR-I	POS.	88.35	0.44	31.81	2.764	
1	6.840	STR-I	POS.	88.35	0.33	29.15	3.020	
1	7.817	STR-I	POS.	88.35	0.22	26.49	3.327	
1	8.794	STR-I	POS.	88.35	0.11	23.83	3.703	
1	9.771L	STR-I	POS.	88.35	0.00	21.17	4.174	
1	9.771R	STR-I	POS.	88.35	0.00	21.17	4.174	
1	10.748	STR-I	NEG.	88.35	-0.11	-23.83	3.703	
1	11.725	STR-I	NEG.	88.35	-0.22	-26.49	3.327	
1	12.702	STR-I	NEG.	88.35	-0.33	-29.15	3.020	
1	13.679	STR-I	NEG.	88.35	-0.44	-31.81	2.764	
1	14.656	STR-I	NEG.	88.35	-0.55	-34.99	2.509	
1	15.633	STR-I	NEG.	88.35	-0.66	-38.43	2.282	
1	16.610	STR-I	NEG.	88.35	-0.77	-41.87	2.092	
1	17.588	STR-I	NEG.	88.35	-0.87	-45.30	1.931	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-48.66	1.796	
1	18.542R	STR-I	NEG.	98.14	-0.98	-48.66	1.997	
1	18.565	STR-I	NEG.	98.14	-0.98	-48.74	1.993	
1	19.542	STR-I	NEG.	98.14	-1.09	-52.18	1.860	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
1	1.000L	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.6	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.9	0.0
1	1.000R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	1.954	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	4.6	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	6.4	0.0
1	3.908	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.8	0.0
1	4.885	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.0	0.0
1	5.863	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	9.9	0.0
1	6.840	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	7.817	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	10.6	0.0
1	8.794	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	10.5	0.0
1	9.771L	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	9.771R	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	10.2	0.0
1	10.748	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.2	0.0
		BOT	STR-I	POS.	1.1	N/A	0.0	0.0	0.0	0.0	10.5	0.0

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	11.725	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	10.6	0.0
1	12.702	TOP	STR-I	POS.	-1.0	N/A	0.0	0.0	0.0	0.0	-10.1	0.0
		BOT	STR-I	POS.	1.0	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	13.679	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	9.9	0.0
1	14.656	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.0	0.0
1	15.633	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.8	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-6.2	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	6.4	0.0
1	17.588	TOP	STR-I	POS.	-0.4	N/A	0.0	0.0	0.0	0.0	-4.4	0.0
		BOT	STR-I	POS.	0.4	N/A	0.0	0.0	0.0	0.0	4.6	0.0
1	18.542L	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.5	0.0
1	18.542R	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.0	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis. When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - ANALYSIS (cont.)

 USER INPUT LATERAL STRESSES

This output report is not applicable because no user
 input lateral loads have been entered.

 FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress.	Limits*	Code
						Bot. Bm.	Top Bm.	Top S/R	0.6*f' _c (ksi)	0.85*f' _c (ksi)	Chk**
1	0.000	STR-I	POS.	0.0	36.55	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	15.0	34.28	4.37	-5.54	0.00	N/A**	N/A**	
1	1.000L	STR-I	POS.	15.3	34.23	4.46	-5.66	0.00	N/A**	N/A**	
1	1.000R	STR-I	POS.	15.3	34.23	N/A*	-3.77	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	28.1	32.01	N/A*	-6.90	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	39.2	29.73	N/A*	-9.64	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	48.5	27.46	N/A*	-11.91	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	55.8	25.19	N/A*	-13.70	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	61.1	22.91	N/A*	-15.02	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	64.6	20.64	N/A*	-15.87	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	66.1	18.37	N/A*	-16.25	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	65.7	16.09	N/A*	-16.15	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	64.2	14.00	N/A*	-15.76	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	64.2	14.00	N/A*	-15.76	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	65.7	-16.09	N/A*	-16.15	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	66.1	-18.37	N/A*	-16.25	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	64.6	-20.64	N/A*	-15.87	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	61.1	-22.91	N/A*	-15.02	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	55.8	-25.19	N/A*	-13.70	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	48.5	-27.46	N/A*	-11.91	0.00	N/A**	N/A**	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	16.610	STR-I	POS.	39.2	-29.73	N/A*	-9.64	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	28.1	-32.01	N/A*	-6.90	0.00	N/A**	N/A**	
1	18.542L	STR-I	POS.	15.3	-34.23	N/A*	-3.77	0.00	N/A**	N/A**	
1	18.542R	STR-I	POS.	15.3	-34.23	N/A*	-3.12	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	15.0	-34.28	N/A*	-3.05	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-36.55	N/A*	0.00	0.00	N/A**	N/A**	

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	1.000R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542L	STR-I	POS.	N/A	N/A	1.000	1.248	1.283	6.9	122.1	118.8	D
1	18.542R	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.162	1.162	6.9	147.6	147.6	D

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
- Dt = Total depth of the composite section (A6.10.7.1.2)
- Rh = Hybrid factor (A6.10.1.10.1)
- Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
- Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
- Dc = Total depth of the web in compression, per Appendix D6.3.1
- Myt = Yield moment to the top flange, per Appendix D6.2
- Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	1.000R	STR-I	POS.	152.4	15.3	D	
1	1.954	STR-I	POS.	152.4	28.1	D	
1	2.931	STR-I	POS.	152.4	39.2	D	
1	3.908	STR-I	POS.	152.4	48.5	D	
1	4.885	STR-I	POS.	152.4	55.8	D	
1	5.863	STR-I	POS.	152.4	61.1	D	
1	6.840	STR-I	POS.	152.4	64.6	D	
1	7.817	STR-I	POS.	152.4	66.1	D	
1	8.794	STR-I	POS.	152.4	65.7	D	

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	9.771L	STR-I	POS.	152.4	64.2	D	
1	9.771R	STR-I	POS.	152.4	64.2	D	
1	10.748	STR-I	POS.	152.4	65.7	D	
1	11.725	STR-I	POS.	152.4	66.1	D	
1	12.702	STR-I	POS.	152.4	64.6	D	
1	13.679	STR-I	POS.	152.4	61.1	D	
1	14.656	STR-I	POS.	152.4	55.8	D	
1	15.633	STR-I	POS.	152.4	48.5	D	
1	16.610	STR-I	POS.	152.4	39.2	D	
1	17.588	STR-I	POS.	152.4	28.1	D	
1	18.542L	STR-I	POS.	152.4	15.3	D	
1	18.542R	STR-I	POS.	171.5	15.3	D	
1	18.565	STR-I	POS.	171.5	15.0	D	
1	19.542	STR-I	POS.	171.5	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS
 $M+ = M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1
 w = Value for M+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2
- C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural +Lateral Stress F_+	Resistance Calculation **	Code Check ***
					R_h^*	R_b^*	$M_r(e)^*$ (kip-ft)	F_r (ksi)			
1	0.000	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	0.0	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	0.0	G	
1	0.977	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-5.5	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	4.4	G	
1	1.000L	TOP	STR-I	POS.	1.000	1.000	81.3	-30.0	-5.7	D	
		BOT	STR-I	POS.	1.000	N/A	103.0	30.0	4.5	G	

* Legend of General Notes:

- R_h = Hybrid factor
- R_b = Load shedding factor (only applies to compression flange)
- $M_r(e)$ = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, F_r
- F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
- w = Value for F_+ includes lateral load effects

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB) (cont.)

** Legend of Resistance Calculation:

Composite Section in Positive Flexure, Noncompact Section:

A. Compression flange governs, Fr calculated using A6.10.7.2.2-1

B. Tension flange governs, Fr calculated using A6.10.7.2.2-2

Composite Section in Negative Flexure or Noncomposite Section:

C. Compression flange governs, Fr calculated using A6.10.8.1.3-1

D. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-1

E. Compression flange governs, Fr calculated using FLB, A6.10.8.2.2-2

F. Tension flange governs, Fr calculated using A6.10.8.1.3-1

G. Tension flange governs, Fr calculated using A6.10.8.3-1

H. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable.

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	0.977	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000L	TOP	STR-I	P	1.2	1.000	1.000	7.8	3.40	12.13	1.000	N/A	N/A	N/A	N/A
1	1.000R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.000	N/A	N/A	N/A	N/A
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	18.542L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248
1	18.542R	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.138	16.92	1.138	122.1	1.248
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	7.0	3.52	13.23	1.138	16.92	1.138	122.1	1.248
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.53	13.26	1.138	16.95	1.138	122.1	1.248

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	0.977	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	1.000L	TOP	STR-I	P	-23.4	B	63.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	1.000R	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	1.954	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	2.931	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	3.908	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	4.885	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	5.863	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	6.840	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	7.817	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	8.794	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	9.771L	TOP	STR-I	P	-24.2	B	95.	-23.4	N/A	H	N/A	H	-16.2	N/A	
1	9.771R	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	10.748	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	11.725	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	12.702	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	13.679	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	14.656	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	15.633	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	16.610	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	
1	17.588	TOP	STR-I	P	-27.6	B	112.	-27.6	138.	E	138.	E	N/A	66.	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored	Effects	Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural+Lateral	Moment	Chk	
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* E	Governing Mr (kip-ft)	* E	F+** (ksi)	M+** (kip-ft)	***	
1	18.542L	TOP	STR-I	P	-27.6	B	112.	-27.6	B	138.	E	138.	E	N/A	66.	
1	18.542R	TOP	STR-I	P	-27.6	B	112.	-27.6	B	138.	E	138.	E	N/A	66.	
1	18.565	TOP	STR-I	P	-27.6	B	112.	-27.6	B	138.	E	138.	E	N/A	66.	
1	19.542	TOP	STR-I	P	-27.6	B	112.	-27.6	B	138.	E	138.	E	N/A	66.	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $\mu + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

Span No.	Dist. (ft)	Limit State	SHEAR CAPACITY		Stiffened/ Unstiffened	Code Check*
			Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)		
1	0.000	STR-I	60.74	36.55	U	
1	0.977	STR-I	60.74	34.28	U	
1	1.000L	STR-I	60.74	34.23	U	
1	1.000R	STR-I	88.35	34.23	U	
1	1.954	STR-I	88.35	32.01	U	
1	2.931	STR-I	88.35	29.73	U	
1	3.908	STR-I	88.35	27.46	U	
1	4.885	STR-I	88.35	25.19	U	
1	5.863	STR-I	88.35	22.91	U	
1	6.840	STR-I	88.35	20.64	U	
1	7.817	STR-I	88.35	18.37	U	
1	8.794	STR-I	88.35	16.09	U	
1	9.771L	STR-I	88.35	14.00	U	
1	9.771R	STR-I	88.35	14.00	U	
1	10.748	STR-I	88.35	-16.09	U	
1	11.725	STR-I	88.35	-18.37	U	
1	12.702	STR-I	88.35	-20.64	U	
1	13.679	STR-I	88.35	-22.91	U	
1	14.656	STR-I	88.35	-25.19	U	
1	15.633	STR-I	88.35	-27.46	U	
1	16.610	STR-I	88.35	-29.73	U	
1	17.588	STR-I	88.35	-32.01	U	

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	18.542L	STR-I	88.35	-34.23	U	
1	18.542R	STR-I	98.14	-34.23	U	
1	18.565	STR-I	98.14	-34.28	U	
1	19.542	STR-I	98.14	-36.55	U	

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.476	27.6	1	0.000	STR-I
	Shear		1.682	31.5	1	0.000	STR-I
	Controlling		1.476	27.6	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	9.771R	STR-I	POS.	138.	5.	61.	2.179*	
1	10.748	STR-I	POS.	138.	5.	61.	2.179*	
1	11.725	STR-I	POS.	138.	5.	61.	2.179*	
1	12.702	STR-I	POS.	138.	5.	61.	2.179*	
1	13.679	STR-I	POS.	138.	5.	61.	2.179*	
1	14.656	STR-I	POS.	138.	5.	61.	2.179*	
1	15.633	STR-I	POS.	138.	5.	61.	2.179*	
1	16.610	STR-I	POS.	138.	5.	61.	2.179*	
1	17.588	STR-I	POS.	138.	5.	61.	2.179*	
1	18.542L	STR-I	POS.	138.	5.	61.	2.179*	
1	18.542R	STR-I	POS.	138.	5.	61.	2.177*	
1	18.565	STR-I	POS.	138.	5.	61.	2.177*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - STRESS FLEXURAL CAPACITY

Span No.	Dist. (ft)	Flng	Limit State	Flex.	Resist. Stress Fr (ksi)	Total DL Stress (ksi)	Total LL Stress (ksi)	Rating Factor	Rating Failures**
1	0.977	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
		BOT	STR-I	POS.	30.0	0.3	4.1	7.292	
1	1.000L	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
		BOT	STR-I	POS.	30.0	0.3	4.2	7.134	
1	1.000R	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	1.954	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	2.931	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	3.908	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	4.885	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	5.863	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	6.840	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	7.817	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	8.794	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	
1	9.771L	TOP	STR-I	POS.	-23.4	-1.3	-15.0	1.476*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling (AASHTO 6.10.8.2.3).

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	60.74	1.09	35.46	1.682	
1	0.977	STR-I	POS.	60.74	0.98	33.30	1.795	
1	1.000L	STR-I	POS.	60.74	0.98	33.25	1.797	
1	1.000R	STR-I	POS.	88.35	0.98	33.25	2.628	
1	1.954	STR-I	POS.	88.35	0.87	31.13	2.810	
1	2.931	STR-I	POS.	88.35	0.77	28.97	3.023	
1	3.908	STR-I	POS.	88.35	0.66	26.80	3.272	
1	4.885	STR-I	POS.	88.35	0.55	24.64	3.563	
1	5.863	STR-I	POS.	88.35	0.44	22.48	3.911	
1	6.840	STR-I	POS.	88.35	0.33	20.31	4.333	
1	7.817	STR-I	POS.	88.35	0.22	18.15	4.856	
1	8.794	STR-I	POS.	88.35	0.11	15.99	5.520	
1	9.771L	STR-I	POS.	88.35	0.00	14.00	6.310	
1	9.771R	STR-I	POS.	88.35	0.00	14.00	6.310	
1	10.748	STR-I	NEG.	88.35	-0.11	-15.99	5.520	
1	11.725	STR-I	NEG.	88.35	-0.22	-18.15	4.856	
1	12.702	STR-I	NEG.	88.35	-0.33	-20.31	4.333	
1	13.679	STR-I	NEG.	88.35	-0.44	-22.48	3.911	
1	14.656	STR-I	NEG.	88.35	-0.55	-24.64	3.563	
1	15.633	STR-I	NEG.	88.35	-0.66	-26.80	3.272	
1	16.610	STR-I	NEG.	88.35	-0.77	-28.97	3.023	
1	17.588	STR-I	NEG.	88.35	-0.87	-31.13	2.810	

 Madawaska Moderate Stringer MainedOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	18.542L	STR-I	NEG.	88.35	-0.98	-33.24	2.628	
1	18.542R	STR-I	NEG.	98.14	-0.98	-33.24	2.922	
1	18.565	STR-I	NEG.	98.14	-0.98	-33.30	2.918	
1	19.542	STR-I	NEG.	98.14	-1.09	-35.46	2.737	

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Moderate Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	33.78	-0.003865
	LL (SPECIAL #2)	0.00	41.85	-0.005228
	LL (SPECIAL #3)	0.00	35.98	-0.004106
	LL (SPECIAL #4)	0.00	24.45	-0.002695
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	33.78	0.003865
	LL (SPECIAL #2)	0.00	41.85	0.005228
	LL (SPECIAL #3)	0.00	35.98	0.004106
	LL (SPECIAL #4)	0.00	24.45	0.002695

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65
2	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	
2	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	

Note: Impact must be added for pier cap design

 Madawaska Moderate Stringer MaineDOT Trucks 5-8
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----							
Inventory Operating	Flexure Not Applicable	T	1.043	45.9	1	0.000	STR-I
SPECIAL #2 -----							
Inventory Operating	Flexure Not Applicable	T	0.794	30.1	1	0.000	STR-I
SPECIAL #3 -----							
Inventory Operating	Flexure Not Applicable	T	0.998	29.6	1	0.000	STR-I
SPECIAL #4 -----							
Inventory Operating	Flexure Not Applicable	T	1.476	27.6	1	0.000	STR-I

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY RATING (IR)	Dist. Fact.	0.258	0.258	0.258	0.258
	Loc. (ft)	0.000	0.000	0.000	0.000
	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	1.04M	0.79M	1.00M	1.48M
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING RATING (OR)	Dist. Fact.	---	---	---	---
	Loc. (ft)	---	---	---	---
	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)		171.46		Span Length(ft) = 19.54	
Location (ft)		18.54R			
Maximum Factored Shear Resistance (kips)		98.14			
Location (ft)		18.54R			

Madawaska Moderate Stringer MaineDOT Trucks 5-8
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
S - SHEAR RATING FACTOR CONTROLS

Madawaska Moderate Stringer MainedOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

COMPACTNESS CRITERIA
WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Moderate Stringer MainedOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

SPECIAL #2

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
SHEAR CAPACITY
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY
RATING FACTORS - SHEAR CAPACITY

SPECIAL #3

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)
BEARING STIFFENER CHECK
RATING FACTORS - STRESS FLEXURAL CAPACITY

SPECIAL #4

BEARING STIFFENER CHECK

 Madawaska Moderate Stringer MainedOT Trucks 5-8

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Moderate MainedOT Trucks 5-8.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	12
BEAM GEOMETRY.....	12
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	13
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	13
SKEW ANGLES.....	13
SPAN LENGTHS.....	13
MATERIAL PROPERTIES.....	13
PLATE GIRDER PROPERTIES, PART 1 of 2.....	14
PLATE GIRDER PROPERTIES, PART 2 of 2.....	14
SECTION LOSSES.....	14
SLAB PROPERTIES, PART 1 OF 2.....	15
SLAB PROPERTIES, PART 2 OF 2.....	15
LOAD FACTORS.....	15
DISTRIBUTED LOADS (DC1).....	15
SPECIAL LIVE LOADING.....	15
SPECIAL AXLE LOAD.....	16
BRACE POINTS.....	16
SYSTEM SETTINGS.....	16
SECTION PROPERTIES.....	17
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	17
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	18
ANALYSIS.....	20
LOAD FACTORS AND COMBINATIONS.....	20
LIVE LOADING SUMMARY.....	20
LOAD MODIFIER.....	20
RESISTANCE FACTORS.....	21
DEAD LOADS.....	21
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	21
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	21

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	22
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	22
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	22
BEAM WEIGHT ANALYSIS - REACTIONS.....	23
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	23
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	23
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	24
TOTAL DC1 ANALYSIS - REACTIONS.....	24
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	24
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	25
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	26
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	26
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	28
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	28
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	29
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	30
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	30
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	30
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	31
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	32
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	32
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	32
SPECIAL #1 - ANALYSIS.....	33
UNFACTORED FLEXURAL STRESSES.....	33
USER INPUT LATERAL STRESSES.....	44
FACTORED ANALYSIS RESULTS.....	44
FACTORED LATERAL STRESSES.....	51
SPECIAL #1 - SPECIFICATION CHECKING.....	52
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	52
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	56
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	60
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	61
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	66
FLANGE LATERAL CAPACITY.....	71
NET SECTION FRACTURE CHECK.....	71
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	71

SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	76
SHEAR CAPACITY.....	78
SPECIAL #1 - RATINGS W/O FWS.....	83
RATING FACTORS - SUMMARY.....	83
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	83
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	84
RATING FACTORS - SHEAR CAPACITY.....	85
SPECIAL #2 - ANALYSIS.....	87
UNFACTORED FLEXURAL STRESSES.....	87
USER INPUT LATERAL STRESSES.....	89
FACTORED ANALYSIS RESULTS.....	89
FACTORED LATERAL STRESSES.....	90
SPECIAL #2 - SPECIFICATION CHECKING.....	91
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	91
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	92
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	94
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	95
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	97
FLANGE LATERAL CAPACITY.....	99
NET SECTION FRACTURE CHECK.....	99
SHEAR CAPACITY.....	99
SPECIAL #2 - RATINGS W/O FWS.....	101
RATING FACTORS - SUMMARY.....	101
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	101
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	102
RATING FACTORS - SHEAR CAPACITY.....	103
SPECIAL #3 - ANALYSIS.....	105
UNFACTORED FLEXURAL STRESSES.....	105
USER INPUT LATERAL STRESSES.....	107
FACTORED ANALYSIS RESULTS.....	107
FACTORED LATERAL STRESSES.....	108
SPECIAL #3 - SPECIFICATION CHECKING.....	109
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	109
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	110
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	112
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	113
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	115
FLANGE LATERAL CAPACITY.....	117
NET SECTION FRACTURE CHECK.....	117
SHEAR CAPACITY.....	117
SPECIAL #3 - RATINGS W/O FWS.....	119

RATING FACTORS - SUMMARY.....	119
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	119
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	120
RATING FACTORS - SHEAR CAPACITY.....	121
SPECIAL #4 - ANALYSIS.....	123
UNFACTORED FLEXURAL STRESSES.....	123
USER INPUT LATERAL STRESSES.....	125
FACTORED ANALYSIS RESULTS.....	125
FACTORED LATERAL STRESSES.....	126
SPECIAL #4 - SPECIFICATION CHECKING.....	127
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	127
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	128
STRESS FLEXURAL CAPACITY (NONCOMPOSITE OR -FLEX OR COMPOSITE/NONCOMPACT, NO LTB).....	130
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	131
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	133
FLANGE LATERAL CAPACITY.....	134
NET SECTION FRACTURE CHECK.....	134
SHEAR CAPACITY.....	135
SPECIAL #4 - RATINGS W/O FWS.....	137
RATING FACTORS - SUMMARY.....	137
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	137
RATING FACTORS - STRESS FLEXURAL CAPACITY.....	138
RATING FACTORS - SHEAR CAPACITY.....	139
SUMMARY - OVERALL REACTIONS.....	141
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	141
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	142
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	143
DL REACTIONS (UNFACTORED) PER GIRDER.....	143
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	143
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	144
DL REACTIONS (UNFACTORED) PER GIRDER.....	144
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	144
OVERALL RATING SUMMARY W/O FWS.....	145
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	145
BRIDGE LOAD RATINGS W/O FWS.....	145
SUMMARY - SPECIFICATION CHECKS.....	147
SPECIFICATION CHECK WARNINGS.....	147
SPECIFICATION CHECK FAILURES.....	148

MINOR SECTION LOSS LOAD RATINGS

MINOR SECTION LOSS
HL-93 (TANDEM)
INVENTORY RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated       09/08/2016
*   Documentation       09/2016
*   License No.        332672
*
*****
*
*   Madawaska Minor Stringer HL-93 Inv
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG           DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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Madawaska Minor Stringer HL-93 Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer HL-93 Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer HL-93 Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.95,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.64,0
SAL 1,25,4,25,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.33        (default)
FATIGUE DYN. LOAD ALLOW.      1.15        (default)
PA TRAFFIC FACTOR              1.20        (default)
REDISTRIBUTE NEG. MOMENTS     N          (default)
IMPORTANCE FACTOR              1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR              1.0          (default)
REDUNDANT LOAD PATH           R          (default)
OUTPUT POINTS                 2          (default)
P-82 DYN. LOAD ALLOW.         1.20        (default)
SKEW ANGLE DESIGNATION        P          (default)
CONSTANT LATERAL STRESS       0. ksi      (default)
DC1S PERCENTAGE               0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS          N          (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *          (computed, if necessary)
SDWK NO. OF DESIGN LANES       *          (computed, if necessary)
SDWK DEFLECTION DF             *          (computed, if necessary)

```

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Minor Stringer HL-93 InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.95
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.64 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	25 kip
AXLE SPACING	4 ft
AXLE LOAD	25 kip
AXLE SPACING	0 ft

Madawaska Minor Stringer HL-93 Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Minor Stringer HL-93 Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.950	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Minor Stringer HL-93 Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer HL-93 Inv
SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer HL-93 Inv
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

 Madawaska Minor Stringer HL-93 Inv
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.95	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated $N_i * N_d * N_r$	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer HL-93 Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Minor Stringer HL-93 Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation
	Factor	Comment*	Distribution Factor
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer HL-93 Inv
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer HL-93 Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00

Madawaska Minor Stringer HL-93 Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	29.6	-34.83	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

Madawaska Minor Stringer HL-93 Inv

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
1	9.771R	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
1	12.702	TOP	STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	15.633	TOP	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	78.25	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	31.6	73.54	N/A*	-6.78	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	59.6	68.86	N/A*	-12.76	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	83.9	64.22	N/A*	-17.96	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	104.5	59.62	N/A*	-22.37	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	121.4	55.05	N/A*	-25.99	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	134.6	50.52	N/A*	-28.82	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	144.2	46.03	N/A*	-30.87	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	150.0	41.57	N/A*	-32.12	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	152.2	37.15	N/A*	-32.59	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	150.7	32.77	N/A*	-32.27	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	150.7	32.77	N/A*	-32.27	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	152.2	-37.15	N/A*	-32.59	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	150.0	-41.57	N/A*	-32.12	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	144.2	-46.03	N/A*	-30.87	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	134.6	-50.52	N/A*	-28.82	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	121.4	-55.05	N/A*	-25.99	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	104.5	-59.62	N/A*	-22.37	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	83.9	-64.22	N/A*	-17.96	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	59.6	-68.86	N/A*	-12.76	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	31.6	-73.54	N/A*	-6.78	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-78.25	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	31.6	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	59.6	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	83.9	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	104.5	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	121.4	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	134.6	D	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	144.2	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	7.817	STR-I	POS.	167.8	150.0	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	8.794	STR-I	POS.	167.8	152.2	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
1	9.771L	STR-I	POS.	167.8	150.7	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	9.771R	STR-I	POS.	167.8	150.7	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	10.748	STR-I	POS.	167.8	152.2	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	150.0	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	12.702	STR-V	POS.	167.8	5.1	D	
		STR-I	POS.	167.8	144.2	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
1	13.679	STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
		STR-I	POS.	167.8	134.6	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
1	14.656	STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
		STR-I	POS.	167.8	121.4	D	
		STR-IA	POS.	167.8	4.0	D	
1	15.633	STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
		STR-I	POS.	167.8	104.5	D	
1	16.610	STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	83.9	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	59.6	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	31.6	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. Dp ≤ 0.1*Dt, Mn calculated using A6.10.7.1.2-1

B. Dp > 0.1*Dt, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 (in)	8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	1.300	140.1	1.198

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.220	18.66	1.220	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-29.8 B	139.	-29.8 B	168.	E	168.	E	168.	N/A	152.	
			STR-IA	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Stress F+** (ksi)	Moment M+** (kip-ft)	Chk ***		
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*					
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	0.977	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	1.954	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	2.931	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	3.908	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	4.885	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	5.863	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A		Factored Effects		Code		
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance			Flexural Resistance			Flexural+Lateral	Effects	Chk			
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Governing Mr (kip-ft)	* Governing Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)	***			
1	11.725	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	12.702	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	13.679	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	14.656	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	15.633	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	16.610	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-29.8	B	139.	-29.8	B	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Flexural Stress F+*** (ksi)	Lateral Moment M+*** (kip-ft)	
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-29.8	B	139.	-29.8	168.	E	168.	E	N/A	152.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	78.25	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	73.54	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	68.86	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	64.22	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	59.62	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	55.05	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	50.52	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	46.03	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	41.57	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Shear Vu (kips)		
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	37.15	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	32.77	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	32.77	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-37.15	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-41.57	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-46.03	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-50.52	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-55.05	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-59.62	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-64.22	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-68.86	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-73.54	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-78.25	U	
		STR-IA	89.44	-1.09	U	

 Madawaska Minor Stringer HL-93 Inv
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

 Madawaska Minor Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.106	27.7	1	0.000	STR-I
	Shear		1.145	28.6	1	0.000	STR-I
	Controlling		1.106	27.7	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	147.	1.106*	
1	1.954	STR-I	POS.	168.	5.	147.	1.106*	
1	2.931	STR-I	POS.	168.	5.	147.	1.106*	
1	3.908	STR-I	POS.	168.	5.	147.	1.106*	
1	4.885	STR-I	POS.	168.	5.	147.	1.106*	
1	5.863	STR-I	POS.	168.	5.	147.	1.106*	
1	6.840	STR-I	POS.	168.	5.	147.	1.106*	
1	7.817	STR-I	POS.	168.	5.	147.	1.106*	
1	8.794	STR-I	POS.	168.	5.	147.	1.106	
1	9.771L	STR-I	POS.	168.	5.	147.	1.106*	
1	9.771R	STR-I	POS.	168.	5.	147.	1.106*	
1	10.748	STR-I	POS.	168.	5.	147.	1.106	
1	11.725	STR-I	POS.	168.	5.	147.	1.106*	
1	12.702	STR-I	POS.	168.	5.	147.	1.106*	
1	13.679	STR-I	POS.	168.	5.	147.	1.106*	
1	14.656	STR-I	POS.	168.	5.	147.	1.106*	

Madawaska Minor Stringer HL-93 Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	147.	1.106*	
1	16.610	STR-I	POS.	168.	5.	147.	1.106*	
1	17.588	STR-I	POS.	168.	5.	147.	1.106*	
1	18.565	STR-I	POS.	168.	5.	147.	1.106*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	77.16	1.145	
1	0.977	STR-I	POS.	89.44	0.98	72.55	1.219	
1	1.954	STR-I	POS.	89.44	0.87	67.99	1.303	
1	2.931	STR-I	POS.	89.44	0.77	63.46	1.397	
1	3.908	STR-I	POS.	89.44	0.66	58.96	1.506	
1	4.885	STR-I	POS.	89.44	0.55	54.51	1.631	
1	5.863	STR-I	POS.	89.44	0.44	50.09	1.777	
1	6.840	STR-I	POS.	89.44	0.33	45.70	1.950	
1	7.817	STR-I	POS.	89.44	0.22	41.35	2.157	
1	8.794	STR-I	POS.	89.44	0.11	37.04	2.411	
1	9.771L	STR-I	POS.	89.44	0.00	32.77	2.729	
1	9.771R	STR-I	POS.	89.44	0.00	32.77	2.729	
1	10.748	STR-I	NEG.	89.44	-0.11	-37.04	2.411	

 Madawaska Minor Stringer HL-93 Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-41.35	2.157	
1	12.702	STR-I	NEG.	89.44	-0.33	-45.70	1.950	
1	13.679	STR-I	NEG.	89.44	-0.44	-50.09	1.777	
1	14.656	STR-I	NEG.	89.44	-0.55	-54.51	1.631	
1	15.633	STR-I	NEG.	89.44	-0.66	-58.96	1.506	
1	16.610	STR-I	NEG.	89.44	-0.77	-63.46	1.397	
1	17.588	STR-I	NEG.	89.44	-0.87	-67.99	1.303	
1	18.565	STR-I	NEG.	89.44	-0.98	-72.55	1.219	
1	19.542	STR-I	NEG.	89.44	-1.09	-77.16	1.145	

 Madawaska Minor Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Minor Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer HL-93 Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		44.88	
2	SPECIAL #1	0.00		44.88	

Note: Impact must be added for pier cap design

 Madawaska Minor Stringer HL-93 Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----						
Inventory Flexure	T	1.106	27.7	1	0.000	STR-I
Operating Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
INVENTORY Dist. Fact.	0.258
RATING Loc. (ft)	0.000
(IR) Limit State	STR-I
RF	1.11M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
OPERATING Dist. Fact.	---
RATING Loc. (ft)	---
(OR) Limit State	---
RF	---

Maximum Factored Flexural Resistance (kip-ft) 167.83 Span Length(ft) = 19.54
 Location (ft) 2.93

Maximum Factored Shear Resistance (kips) 89.44
 Location (ft) 0.00

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Minor Stringer HL-93 Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD

 Madawaska Minor Stringer HL-93 Inv

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor HL-93 Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	10
BEAM GEOMETRY.....	10
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
SKEW ANGLES.....	11
SPAN LENGTHS.....	11
MATERIAL PROPERTIES.....	11
PLATE GIRDER PROPERTIES, PART 1 of 2.....	11
PLATE GIRDER PROPERTIES, PART 2 of 2.....	11
SECTION LOSSES.....	11
SLAB PROPERTIES, PART 1 OF 2.....	12
SLAB PROPERTIES, PART 2 OF 2.....	12
LOAD FACTORS.....	12
DISTRIBUTED LOADS (DC1).....	12
SPECIAL LIVE LOADING.....	13
SPECIAL AXLE LOAD.....	13
BRACE POINTS.....	13
SYSTEM SETTINGS.....	13
SECTION PROPERTIES.....	14
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	15
ANALYSIS.....	16
LOAD FACTORS AND COMBINATIONS.....	16
LIVE LOADING SUMMARY.....	16
LOAD MODIFIER.....	16
RESISTANCE FACTORS.....	17
DEAD LOADS.....	17
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	17
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	17

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	18
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	18
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	18
BEAM WEIGHT ANALYSIS - REACTIONS.....	18
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	19
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	19
TOTAL DC1 ANALYSIS - REACTIONS.....	20
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	20
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 - ANALYSIS.....	23
UNFACTORED FLEXURAL STRESSES.....	23
USER INPUT LATERAL STRESSES.....	32
FACTORED ANALYSIS RESULTS.....	32
FACTORED LATERAL STRESSES.....	38
SPECIAL #1 - SPECIFICATION CHECKING.....	39
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	39
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	43
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	47
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	50
FLANGE LATERAL CAPACITY.....	55
NET SECTION FRACTURE CHECK.....	55
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	55
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	59
SHEAR CAPACITY.....	61
SPECIAL #1 - RATINGS W/O FWS.....	66
RATING FACTORS - SUMMARY.....	66
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	66
RATING FACTORS - SHEAR CAPACITY.....	67
SUMMARY - OVERALL REACTIONS.....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	70
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	71
DL REACTIONS (UNFACTORED) PER GIRDER.....	71
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	71
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	72
DL REACTIONS (UNFACTORED) PER GIRDER.....	72
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	72
OVERALL RATING SUMMARY W/O FWS.....	73

RATING FACTORS - OVERALL SUMMARY W/O FWS.....	73
BRIDGE LOAD RATINGS W/O FWS.....	73
SUMMARY - SPECIFICATION CHECKS.....	74
SPECIFICATION CHECK WARNINGS.....	74
SPECIFICATION CHECK FAILURES.....	75

MINOR SECTION LOSS
HL-93 (TANDEM)
OPERATING RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Minor Stringer HL-93 Oper
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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Madawaska Minor Stringer HL-93 Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer HL-93 Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer HL-93 Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.50,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.64,0
SAL 1,25,4,25,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0         (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.33        (default)
FATIGUE DYN. LOAD ALLOW.       1.15        (default)
PA TRAFFIC FACTOR              1.20        (default)
REDISTRIBUTE NEG. MOMENTS      N          (default)
IMPORTANCE FACTOR              1.0         (default)
DUCTILITY FACTOR               1.0         (default)
REDUNDANCY FACTOR              1.0         (default)
REDUNDANT LOAD PATH            R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.          1.20        (default)
SKEW ANGLE DESIGNATION         P          (default)
CONSTANT LATERAL STRESS        0. ksi    (default)
DC1S PERCENTAGE                0.         (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                   * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS           N          (default)
NO. OF DESIGN LANES             2
DEFLECTION DF                   *          (computed, if necessary)
SDWK NO. OF DESIGN LANES        *          (computed, if necessary)
SDWK DEFLECTION DF              *          (computed, if necessary)

```

Madawaska Minor Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

INPUT COMMANDS (cont.)

```

COMMAND:  LDF
LOAD FACTOR TYPE                SLL
LOAD FACTOR STRENGTH I          1.50
LOAD FACTOR STRENGTH IP         0
LOAD FACTOR STRENGTH IA         0
LOAD FACTOR STRENGTH II         0
LOAD FACTOR STRENGTH III        0
LOAD FACTOR STRENGTH IV         0
LOAD FACTOR STRENGTH V          0
LOAD FACTOR SERVICE II          0
LOAD FACTOR SERVICE IIA         0
LOAD FACTOR SERVICE IIB         0
LOAD FACTOR FATIGUE I           0
LOAD FACTOR DEFLECTION           0
LOAD FACTOR CONSTRUCTION         0
LOAD FACTOR SERVICE I           0
LOAD FACTOR FATIGUE II          0

COMMAND:  DLD
LOAD TYPE                        DC1
START SPAN NUMBER                1
START DISTANCE                   0 ft
END SPAN NUMBER                  1
END DISTANCE                     19.541666666 ft
START MAGNITUDE                  0.047 kip/ft
END MAGNITUDE                    0.047 kip/ft

COMMAND:  SLL
SPECIAL LL NUMBER                1
AXLE EFFECT                      N
LANE LOAD                        0.64 kip/ft
PERCENT INCREASE                 0

COMMAND:  SAL
SPECIAL LL NUMBER                1
AXLE LOAD                        25 kip
AXLE SPACING                     4 ft
AXLE LOAD                        25 kip
AXLE SPACING                     0 ft
    
```

Madawaska Minor Stringer HL-93 OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Minor Stringer HL-93 Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

 CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

 BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

 USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

 USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

 USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID	L S	H E	V Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.500	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Minor Stringer HL-93 Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.640	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	25.000	4.000	25.000	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer HL-93 Oper

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer HL-93 Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange Iyc (in ⁴)	T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Steel ry (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)		
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

 Madawaska Minor Stringer HL-93 Oper
 ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.50	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

 Madawaska Minor Stringer HL-93 Oper
 ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

 Madawaska Minor Stringer HL-93 Oper
 ANALYSIS (cont.)

 DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

 DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

 BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

 BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

 Madawaska Minor Stringer HL-93 Oper
 ANALYSIS (cont.)

 PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

 PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

 TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer HL-93 Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	15.7	17.25	0.0	0.00
1	1.954	29.6	34.83	0.0	0.00
1	2.931	41.6	32.46	0.0	0.00
1	3.908	51.8	30.09	0.0	0.00
1	4.885	60.2	27.72	0.0	0.00
1	5.863	66.7	25.35	0.0	0.00
1	6.840	71.4	3.03	0.0	0.00
1	7.817	74.3	20.61	0.0	0.00
1	8.794	75.3	18.24	0.0	0.00
1	9.771L	74.5	-15.87	0.0	0.00
1	9.771R	74.5	-15.87	0.0	0.00
1	10.748	75.3	-18.24	0.0	0.00
1	11.725	74.3	-20.61	0.0	0.00
1	12.702	71.4	-22.98	0.0	0.00
1	13.679	66.7	-25.35	0.0	0.00
1	14.656	60.2	-27.72	0.0	0.00
1	15.633	51.8	-30.09	0.0	0.00
1	16.610	41.6	-32.46	0.0	0.00

 Madawaska Minor Stringer HL-93 Oper
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	29.6	-34.83	0.0	0.00
1	18.565	15.7	-37.20	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

 SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	39.57	0.0	0.00	0.0	0.000
1	0.977	37.21	15.6	-1.01	8.0	0.051
1	1.954	34.87	29.3	-2.03	15.4	0.101
1	2.931	32.54	41.0	-3.08	22.0	0.148
1	3.908	30.24	50.8	-4.14	27.8	0.192
1	4.885	27.95	58.7	-6.13	38.6	0.231
1	5.863	25.68	64.7	-8.22	48.4	0.264
1	6.840	23.44	68.9	-10.34	56.5	0.291
1	7.817	21.21	71.3	-12.48	62.9	0.311
1	8.794	19.00	71.8	-14.63	67.6	0.323
1	9.771L	16.80	70.6	-16.80	70.6	0.327
1	9.771R	16.80	70.6	-16.80	70.6	0.327
1	10.748	14.63	67.6	-19.00	71.8	0.323
1	11.725	12.48	62.9	-21.21	71.3	0.311
1	12.702	10.34	56.5	-23.44	68.9	0.291
1	13.679	8.22	48.4	-25.68	64.7	0.264
1	14.656	6.13	38.6	-27.95	58.7	0.231
1	15.633	4.14	27.8	-30.24	50.8	0.192
1	16.610	3.08	22.0	-32.54	41.0	0.148
1	17.588	2.03	15.4	-34.87	29.3	0.101
1	18.565	1.01	8.0	-37.21	15.6	0.051
1	19.542	0.00	0.0	-39.57	0.0	0.000

 SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	39.57	0.00	0.000000	-0.005044
2	39.57	0.00	0.005044	0.000000

 Madawaska Minor Stringer HL-93 Oper
 ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	44.88	0.00	6.25	0.00
2	44.88	0.00	6.25	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015251
2	0.015251	0.000000

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
1	9.771R	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.0	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.1	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.9	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
1	14.656	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.3	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	15.633	TOP	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.1	0.0
		TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	16.610	BOT	SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.4	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.4	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	60.45	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.6	56.80	N/A*	-5.26	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	46.3	53.17	N/A*	-9.91	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	65.2	49.58	N/A*	-13.95	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	81.2	46.01	N/A*	-17.38	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	94.3	42.47	N/A*	-20.19	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	104.6	38.96	N/A*	-22.39	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	112.0	35.48	N/A*	-23.98	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	116.6	32.03	N/A*	-24.96	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	118.3	28.60	N/A*	-25.33	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	117.2	25.21	N/A*	-25.08	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	117.2	25.21	N/A*	-25.08	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	118.3	-28.60	N/A*	-25.33	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	116.6	-32.03	N/A*	-24.96	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	112.0	-35.48	N/A*	-23.98	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	104.6	-38.96	N/A*	-22.39	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	94.3	-42.47	N/A*	-20.19	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	81.2	-46.01	N/A*	-17.38	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	65.2	-49.58	N/A*	-13.95	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	46.3	-53.17	N/A*	-9.91	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.6	-56.80	N/A*	-5.26	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.45	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	24.6	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	46.3	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	65.2	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	81.2	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	94.3	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	104.6	D	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-I	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	112.0	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	7.817	STR-I	POS.	167.8	116.6	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	8.794	STR-I	POS.	167.8	118.3	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
1	9.771L	STR-I	POS.	167.8	117.2	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	9.771R	STR-I	POS.	167.8	117.2	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	10.748	STR-I	POS.	167.8	118.3	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	116.6	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	12.702	STR-I	POS.	167.8	112.0	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	13.679	STR-I	POS.	167.8	104.6	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
1	14.656	STR-I	POS.	167.8	94.3	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
1	15.633	STR-I	POS.	167.8	81.2	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
1	16.610	STR-I	POS.	167.8	65.2	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	46.3	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	24.6	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 (in)	8.2.3 Lr* (ft)	Cb*	Lr*	Appendix A Cb* (ft)	Myc* (kip-ft)	Rpc*
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198	
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.221	18.66	1.221	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of $R_b R_h F_y c$ under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress $F+^{***}$ (ksi)	Effects Lateral Moment $M+^{***}$ (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-29.9 B	139.	-29.9 B	168.	E	168.	E	168.	N/A	118.	
			STR-IA	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	1.954	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	2.931	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	3.908	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	4.885	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	5.863	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-29.9	B	139.	-29.9	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-29.9	B	139.	-29.9	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-29.9	B	139.	-29.9	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-29.9	B	139.	-29.9	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.9	B	139.	-29.9	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-29.9	B	139.	-29.9	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	*	Governing Mr(e)** (kip-ft)	Fr (ksi)	*	Local Mr (kip-ft)	*	Governing Mr (kip-ft)	*	Stress F+** (ksi)		Lateral Moment M+** (kip-ft)
1	11.725	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	12.702	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	13.679	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	14.656	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	15.633	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	16.610	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local	Governing			Local	Governing			Flexural+Lateral	Moment		
					Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Mr (kip-ft)	*	Mr (kip-ft)	*	F+** (ksi)		M+** (kip-ft)
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-29.9	B	139.	-29.9	B	168.	E	168.	E	N/A	118.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

 Madawaska Minor Stringer HL-93 Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Factored Flexural Stress Fr (ksi)	Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive
flexure in which the web satisfies the requirement of LRFD
Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/ Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	60.45	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	56.80	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	53.17	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Factored Shear Vu (kips)		
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	49.58	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	46.01	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	42.47	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	38.96	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	35.48	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	32.03	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

			SHEAR CAPACITY (cont.)			
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Shear Vu (kips)		
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	28.60	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	25.21	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	25.21	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-28.60	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-32.03	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-35.48	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-38.96	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-42.47	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-46.01	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-49.58	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-53.17	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-56.80	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-60.45	U	
		STR-IA	89.44	-1.09	U	

Madawaska Minor Stringer HL-93 Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

 Madawaska Minor Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.438	36.0	1	0.000	STR-I
	Shear		1.488	37.2	1	0.000	STR-I
	Controlling		1.438	36.0	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr Moment (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	113.	1.438*	
1	1.954	STR-I	POS.	168.	5.	113.	1.438*	
1	2.931	STR-I	POS.	168.	5.	113.	1.438*	
1	3.908	STR-I	POS.	168.	5.	113.	1.438*	
1	4.885	STR-I	POS.	168.	5.	113.	1.438*	
1	5.863	STR-I	POS.	168.	5.	113.	1.438*	
1	6.840	STR-I	POS.	168.	5.	113.	1.438*	
1	7.817	STR-I	POS.	168.	5.	113.	1.438*	
1	8.794	STR-I	POS.	168.	5.	113.	1.438	
1	9.771L	STR-I	POS.	168.	5.	113.	1.438*	
1	9.771R	STR-I	POS.	168.	5.	113.	1.438*	
1	10.748	STR-I	POS.	168.	5.	113.	1.438	
1	11.725	STR-I	POS.	168.	5.	113.	1.438*	
1	12.702	STR-I	POS.	168.	5.	113.	1.438*	
1	13.679	STR-I	POS.	168.	5.	113.	1.438*	
1	14.656	STR-I	POS.	168.	5.	113.	1.438*	

 Madawaska Minor Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	113.	1.438*	
1	16.610	STR-I	POS.	168.	5.	113.	1.438*	
1	17.588	STR-I	POS.	168.	5.	113.	1.438*	
1	18.565	STR-I	POS.	168.	5.	113.	1.438*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

 RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	59.35	1.488	
1	0.977	STR-I	POS.	89.44	0.98	55.81	1.585	
1	1.954	STR-I	POS.	89.44	0.87	52.30	1.693	
1	2.931	STR-I	POS.	89.44	0.77	48.81	1.817	
1	3.908	STR-I	POS.	89.44	0.66	45.36	1.957	
1	4.885	STR-I	POS.	89.44	0.55	41.93	2.120	
1	5.863	STR-I	POS.	89.44	0.44	38.53	2.310	
1	6.840	STR-I	POS.	89.44	0.33	35.15	2.535	
1	7.817	STR-I	POS.	89.44	0.22	31.81	2.805	
1	8.794	STR-I	POS.	89.44	0.11	28.49	3.135	
1	9.771L	STR-I	POS.	89.44	0.00	25.21	3.548	
1	9.771R	STR-I	POS.	89.44	0.00	25.21	3.548	
1	10.748	STR-I	NEG.	89.44	-0.11	-28.49	3.135	

 Madawaska Minor Stringer HL-93 Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-31.81	2.805	
1	12.702	STR-I	NEG.	89.44	-0.33	-35.15	2.535	
1	13.679	STR-I	NEG.	89.44	-0.44	-38.53	2.310	
1	14.656	STR-I	NEG.	89.44	-0.55	-41.93	2.120	
1	15.633	STR-I	NEG.	89.44	-0.66	-45.36	1.957	
1	16.610	STR-I	NEG.	89.44	-0.77	-48.81	1.817	
1	17.588	STR-I	NEG.	89.44	-0.87	-52.30	1.693	
1	18.565	STR-I	NEG.	89.44	-0.98	-55.81	1.585	
1	19.542	STR-I	NEG.	89.44	-1.09	-59.35	1.488	

 Madawaska Minor Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	30.68	0.003935

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Minor Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	39.57	-0.005044
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	39.57	0.005044

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	51.14
2	SPECIAL #1	0.00	51.14

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer HL-93 Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	44.88
2	SPECIAL #1	0.00	44.88

Note: Impact must be added for pier cap design

 Madawaska Minor Stringer HL-93 Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1 -----							
Inventory	Flexure	T	1.438	36.0	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
INVENTORY	Dist. Fact. 0.258
RATING	Loc. (ft) 0.000
(IR)	Limit State STR-I
	RF 1.44M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

	SPECIAL #1
OPERATING	Dist. Fact. ---
RATING	Loc. (ft) ---
(OR)	Limit State ---
	RF ---

Maximum Factored Flexural Resistance (kip-ft)	167.83	Span Length(ft) = 19.54
Location (ft)	2.93	

Maximum Factored Shear Resistance (kips)	89.44
Location (ft)	0.00

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Minor Stringer HL-93 Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD

 Madawaska Minor Stringer HL-93 Oper

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor HL-93 Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	10
BEAM GEOMETRY.....	10
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
SKEW ANGLES.....	11
SPAN LENGTHS.....	11
MATERIAL PROPERTIES.....	11
PLATE GIRDER PROPERTIES, PART 1 of 2.....	11
PLATE GIRDER PROPERTIES, PART 2 of 2.....	11
SECTION LOSSES.....	11
SLAB PROPERTIES, PART 1 OF 2.....	12
SLAB PROPERTIES, PART 2 OF 2.....	12
LOAD FACTORS.....	12
DISTRIBUTED LOADS (DC1).....	12
SPECIAL LIVE LOADING.....	13
SPECIAL AXLE LOAD.....	13
BRACE POINTS.....	13
SYSTEM SETTINGS.....	13
SECTION PROPERTIES.....	14
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	15
ANALYSIS.....	16
LOAD FACTORS AND COMBINATIONS.....	16
LIVE LOADING SUMMARY.....	16
LOAD MODIFIER.....	16
RESISTANCE FACTORS.....	17
DEAD LOADS.....	17
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	17
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	17

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	18
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	18
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	18
BEAM WEIGHT ANALYSIS - REACTIONS.....	18
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	19
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	19
TOTAL DC1 ANALYSIS - REACTIONS.....	20
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	20
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 - ANALYSIS.....	23
UNFACTORED FLEXURAL STRESSES.....	23
USER INPUT LATERAL STRESSES.....	32
FACTORED ANALYSIS RESULTS.....	32
FACTORED LATERAL STRESSES.....	38
SPECIAL #1 - SPECIFICATION CHECKING.....	39
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	39
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	43
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	47
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	50
FLANGE LATERAL CAPACITY.....	55
NET SECTION FRACTURE CHECK.....	55
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	55
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	59
SHEAR CAPACITY.....	61
SPECIAL #1 - RATINGS W/O FWS.....	66
RATING FACTORS - SUMMARY.....	66
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	66
RATING FACTORS - SHEAR CAPACITY.....	67
SUMMARY - OVERALL REACTIONS.....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	70
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	71
DL REACTIONS (UNFACTORED) PER GIRDER.....	71
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	71
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	72
DL REACTIONS (UNFACTORED) PER GIRDER.....	72
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	72
OVERALL RATING SUMMARY W/O FWS.....	73

RATING FACTORS - OVERALL SUMMARY W/O FWS.....	73
BRIDGE LOAD RATINGS W/O FWS.....	73
SUMMARY - SPECIFICATION CHECKS.....	74
SPECIFICATION CHECK WARNINGS.....	74
SPECIFICATION CHECK FAILURES.....	75

MINOR SECTION LOSS
CL-625-ONT TRUCK
INVENTORY RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated       09/08/2016
*   Documentation      09/2016
*   License No.        332672
*
*****
*
*   Madawaska Minor Stringer CL-625-ONT Truck Inv
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG           DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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```

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer CL-625-ONT Truck Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer CL-625-ONT Truck Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.25
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.25
FATIGUE DYN. LOAD ALLOW.      1.15          (default)
PA TRAFFIC FACTOR             1.20          (default)
REDISTRIBUTE NEG. MOMENTS     N            (default)
IMPORTANCE FACTOR             1.0          (default)
DUCTILITY FACTOR              1.0          (default)
REDUNDANCY FACTOR             1.0          (default)
REDUNDANT LOAD PATH           R            (default)
OUTPUT POINTS                 2            (default)
P-82 DYN. LOAD ALLOW.         1.20          (default)
SKEW ANGLE DESIGNATION        P            (default)
CONSTANT LATERAL STRESS       0. ksi       (default)
DC1S PERCENTAGE               0.            (default)

COMMAND:  GEO
BEAM/STRINGER SPACING         2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                 * ft        (computed, if necessary)
STAGGERED DIAPHRAGMS         N            (default)
NO. OF DESIGN LANES           2
DEFLECTION DF                 *            (computed, if necessary)
SDWK NO. OF DESIGN LANES      *            (computed, if necessary)
SDWK DEFLECTION DF            *            (computed, if necessary)

```

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Minor Stringer CL-625-ONT Truck InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.63
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	11.240 kip
AXLE SPACING	11.81 ft
AXLE LOAD	31.473 kip
AXLE SPACING	3.94 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	39.342 kip
AXLE SPACING	21.65 ft
AXLE LOAD	26.977 kip
AXLE SPACING	0 ft

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)

CONTROL PARAMETERS

Units US	Design/ Analysis ANALYSIS	Type of Beam PLATE GIRDER	Exterior/ Interior INTERIOR	No. Beams 9	No. Spans 1	Symmetry NO	Deck Pour Symmetry NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250	Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00	DC1S Percentage 0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms NO	Number of Design Lanes 2	Deflection Distribution Factor

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.258	DF2 0.258	DF1 0.600	DF2 0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.000	DF2 0.000	DF1 0.000	DF2 0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)

Madawaska Minor Stringer CL-625-ONT Truck Inv
INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240 26.977	11.810 0.000	31.473	3.940	31.473	21.650	39.342	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer CL-625-ONT Truck Inv

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Top of Beam (in ³)	Section Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer CL-625-ONT Truck Inv

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

Madawaska Minor Stringer CL-625-ONT Truck Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier Used	Fatigue Load Modifier Used
Ni	Nd	Nr	Ni*Nd*Nr		
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Minor Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00

Madawaska Minor Stringer CL-625-ONT Truck Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	32.4	-38.52	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

 SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	9.771R	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	72.95	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	29.3	68.31	N/A*	-6.27	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	54.7	63.67	N/A*	-11.71	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	76.2	59.02	N/A*	-16.31	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	93.8	54.46	N/A*	-20.09	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	108.9	50.50	N/A*	-23.33	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	120.7	46.55	N/A*	-25.85	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	129.2	42.59	N/A*	-27.65	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	134.2	38.63	N/A*	-28.74	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	136.0	34.68	N/A*	-29.12	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	134.4	30.72	N/A*	-28.78	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	134.4	30.72	N/A*	-28.78	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	136.0	-34.68	N/A*	-29.12	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	134.2	-38.63	N/A*	-28.74	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	129.2	-42.59	N/A*	-27.65	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	120.7	-46.55	N/A*	-25.85	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	108.9	-50.50	N/A*	-23.33	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	93.8	-54.46	N/A*	-20.09	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. Top Bm. Top S/R (ksi) (ksi) (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59 -0.59 0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	76.2	-59.02	N/A* -16.31 0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A* -0.70 0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	54.7	-63.67	N/A* -11.71 0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A* -0.49 0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	29.3	-68.31	N/A* -6.27 0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A* -0.26 0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-72.95	N/A* 0.00 0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A* 0.00 0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00 0.00 0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00 0.00 0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00 0.00 0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00 0.00 0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	29.3	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	54.7	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	76.2	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	93.8	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	108.9	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	120.7	D	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	129.2	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	7.817	STR-I	POS.	167.8	134.2	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	8.794	STR-I	POS.	167.8	136.0	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
1	9.771L	STR-I	POS.	167.8	134.4	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	9.771R	STR-I	POS.	167.8	134.4	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	10.748	STR-I	POS.	167.8	136.0	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	134.2	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
		STR-V	POS.	167.8	5.1	D	
1	12.702	STR-I	POS.	167.8	129.2	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
1	13.679	STR-I	POS.	167.8	120.7	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	14.656	STR-I	POS.	167.8	108.9	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	15.633	STR-I	POS.	167.8	93.8	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	76.2	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	54.7	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	29.3	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10	8.2.3	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)	Cb*	(ft)		(kip-ft)	
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.213	18.66	1.213	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F+** (ksi)	Effects Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-29.7 B	139.	-29.7 B	168.	E	168.	E	168.	N/A	136.	
			STR-IA	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	1.954	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	2.931	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	3.908	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	4.885	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	5.863	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3				Appendix A				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	11.725	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	12.702	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	13.679	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	14.656	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	15.633	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	16.610	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A				Factored Effects		Code
Flexural Resistance		Flexural Resistance		Flexural+Lateral		Chk													
Span	Dist.	Limit	Local	Governing	Local	Governing	Stress	Moment	***										
No.	(ft)	State	Flx	Fr	* Mr(e)**	Fr	* Mr	* Mr	F+***	M+***	***								
				(ksi)	(kip-ft)	(ksi)	(kip-ft)	(kip-ft)	(ksi)	(kip-ft)									
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A				
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
1	18.565	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.				
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A				
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
1	19.542	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	136.				
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A				
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A				

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	72.95	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	68.31	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	63.67	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)						
Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	59.02	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	54.46	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	50.50	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	46.55	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	42.59	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	38.63	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

			SHEAR CAPACITY (cont.)			
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Shear Vu (kips)		
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	34.68	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	30.72	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	30.72	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-34.68	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-38.63	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-42.59	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-46.55	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-50.50	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-54.46	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-59.02	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-63.67	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-68.31	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-72.95	U	
		STR-IA	89.44	-1.09	U	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)
-----SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.244	87.4	1	0.000	STR-I
	Shear		1.229	86.4	1	0.000	STR-I
	Controlling		1.229	86.4	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	131.	1.244*	
1	1.954	STR-I	POS.	168.	5.	131.	1.244*	
1	2.931	STR-I	POS.	168.	5.	131.	1.244*	
1	3.908	STR-I	POS.	168.	5.	131.	1.244*	
1	4.885	STR-I	POS.	168.	5.	131.	1.244*	
1	5.863	STR-I	POS.	168.	5.	131.	1.244*	
1	6.840	STR-I	POS.	168.	5.	131.	1.244*	
1	7.817	STR-I	POS.	168.	5.	131.	1.244*	
1	8.794	STR-I	POS.	168.	5.	131.	1.244	
1	9.771L	STR-I	POS.	168.	5.	131.	1.244*	
1	9.771R	STR-I	POS.	168.	5.	131.	1.244*	
1	10.748	STR-I	POS.	168.	5.	131.	1.244	
1	11.725	STR-I	POS.	168.	5.	131.	1.244*	
1	12.702	STR-I	POS.	168.	5.	131.	1.244*	
1	13.679	STR-I	POS.	168.	5.	131.	1.244*	
1	14.656	STR-I	POS.	168.	5.	131.	1.244*	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	131.	1.244*	
1	16.610	STR-I	POS.	168.	5.	131.	1.244*	
1	17.588	STR-I	POS.	168.	5.	131.	1.244*	
1	18.565	STR-I	POS.	168.	5.	131.	1.244*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	71.86	1.229	
1	0.977	STR-I	POS.	89.44	0.98	67.33	1.314	
1	1.954	STR-I	POS.	89.44	0.87	62.79	1.410	
1	2.931	STR-I	POS.	89.44	0.77	58.26	1.522	
1	3.908	STR-I	POS.	89.44	0.66	53.80	1.650	
1	4.885	STR-I	POS.	89.44	0.55	49.96	1.779	
1	5.863	STR-I	POS.	89.44	0.44	46.11	1.930	
1	6.840	STR-I	POS.	89.44	0.33	42.26	2.109	
1	7.817	STR-I	POS.	89.44	0.22	38.41	2.323	
1	8.794	STR-I	POS.	89.44	0.11	34.57	2.584	
1	9.771L	STR-I	POS.	89.44	0.00	30.72	2.911	
1	9.771R	STR-I	POS.	89.44	0.00	30.72	2.911	
1	10.748	STR-I	NEG.	89.44	-0.11	-34.57	2.584	

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-38.41	2.323	
1	12.702	STR-I	NEG.	89.44	-0.33	-42.26	2.109	
1	13.679	STR-I	NEG.	89.44	-0.44	-46.11	1.930	
1	14.656	STR-I	NEG.	89.44	-0.55	-49.96	1.779	
1	15.633	STR-I	NEG.	89.44	-0.66	-53.80	1.650	
1	16.610	STR-I	NEG.	89.44	-0.77	-58.26	1.522	
1	17.588	STR-I	NEG.	89.44	-0.87	-62.79	1.410	
1	18.565	STR-I	NEG.	89.44	-0.98	-67.33	1.314	
1	19.542	STR-I	NEG.	89.44	-1.09	-71.86	1.229	

Madawaska Minor Stringer CL-625-ONT Truck Inv
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Minor Stringer CL-625-ONT Truck Inv
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer CL-625-ONT Truck Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		58.78	
2	SPECIAL #1	0.00		58.78	

Note: Impact must be added for pier cap design

Madawaska Minor Stringer CL-625-ONT Truck Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Shear		1.229	86.4	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.600
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 1.23S

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 167.83 Span Length(ft) = 19.54
 Location (ft) 2.93

Maximum Factored Shear Resistance (kips) 89.44
 Location (ft) 0.00

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Minor Stringer CL-625-ONT Truck Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD

 Madawaska Minor Stringer CL-625-ONT Truck Inv

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor CL-625-ONT Truck Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	10
BEAM GEOMETRY.....	10
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
SKEW ANGLES.....	11
SPAN LENGTHS.....	11
MATERIAL PROPERTIES.....	11
PLATE GIRDER PROPERTIES, PART 1 of 2.....	11
PLATE GIRDER PROPERTIES, PART 2 of 2.....	11
SECTION LOSSES.....	11
SLAB PROPERTIES, PART 1 OF 2.....	12
SLAB PROPERTIES, PART 2 OF 2.....	12
LOAD FACTORS.....	12
DISTRIBUTED LOADS (DC1).....	12
SPECIAL LIVE LOADING.....	13
SPECIAL AXLE LOAD.....	13
BRACE POINTS.....	13
SYSTEM SETTINGS.....	13
SECTION PROPERTIES.....	14
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	15
ANALYSIS.....	16
LOAD FACTORS AND COMBINATIONS.....	16
LIVE LOADING SUMMARY.....	16
LOAD MODIFIER.....	16
RESISTANCE FACTORS.....	17
DEAD LOADS.....	17
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	17
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	17

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	18
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	18
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	18
BEAM WEIGHT ANALYSIS - REACTIONS.....	18
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	19
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	19
TOTAL DC1 ANALYSIS - REACTIONS.....	20
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	20
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 - ANALYSIS.....	23
UNFACTORED FLEXURAL STRESSES.....	23
USER INPUT LATERAL STRESSES.....	32
FACTORED ANALYSIS RESULTS.....	32
FACTORED LATERAL STRESSES.....	38
SPECIAL #1 - SPECIFICATION CHECKING.....	39
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	39
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	43
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	47
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	50
FLANGE LATERAL CAPACITY.....	55
NET SECTION FRACTURE CHECK.....	55
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	55
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	59
SHEAR CAPACITY.....	61
SPECIAL #1 - RATINGS W/O FWS.....	66
RATING FACTORS - SUMMARY.....	66
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	66
RATING FACTORS - SHEAR CAPACITY.....	67
SUMMARY - OVERALL REACTIONS.....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	70
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	71
DL REACTIONS (UNFACTORED) PER GIRDER.....	71
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	71
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	72
DL REACTIONS (UNFACTORED) PER GIRDER.....	72
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	72
OVERALL RATING SUMMARY W/O FWS.....	73

RATING FACTORS - OVERALL SUMMARY W/O FWS.....	73
BRIDGE LOAD RATINGS W/O FWS.....	73
SUMMARY - SPECIFICATION CHECKS.....	74
SPECIFICATION CHECK WARNINGS.....	74
SPECIFICATION CHECK FAILURES.....	75

MINOR SECTION LOSS
CL-625-ONT TRUCK
OPERATING RATING

```

*****
*
*   Program Title      LRFD Steel Girder Design and Rating
*   Program Name      STLRFD
*   Version            2.4.0.0
*   Last Updated      09/08/2016
*   Documentation      09/2016
*   License No.       332672
*
*****
*
*   Madawaska Minor Stringer CL-625-ONT Truck Oper
*
*   MADE BY: SMZ              DATE: 09/22/17
*
*   CHECKED BY: EMG          DATE: 09/29/17
*
*   BACKCHECKED BY: SMZ      DATE: 09/29/17
*
*****
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*****

```

Madawaska Minor Stringer CL-625-ONT Truck Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

```
!Madawaska Minor Stringer CL-625-ONT Truck Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer CL-625-ONT Truck Oper
TTL
TTL MADE BY: SMZ                      DATE: 09/22/17
TTL
TTL CHECKED BY: EMG                   DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ               DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.25
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,11.240,11.81,31.473,3.94,31.473,21.65,39.342,21.65,26.977,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1
```

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                      N
DECK POUR SYMMETRY             N
ADTT FOR SINGLE LANE           168
MULT. PRES. ADJ. FACTOR        1.0         (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE         1.25
FATIGUE DYN. LOAD ALLOW.       1.15         (default)
PA TRAFFIC FACTOR              1.20         (default)
REDISTRIBUTE NEG. MOMENTS      N           (default)
IMPORTANCE FACTOR              1.0         (default)
DUCTILITY FACTOR              1.0         (default)
REDUNDANCY FACTOR              1.0         (default)
REDUNDANT LOAD PATH            R           (default)
OUTPUT POINTS                  2           (default)
P-82 DYN. LOAD ALLOW.          1.20         (default)
SKEW ANGLE DESIGNATION        P           (default)
CONSTANT LATERAL STRESS        0. ksi     (default)
DC1S PERCENTAGE                0.         (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                  * ft       (computed, if necessary)
STAGGERED DIAPHRAGMS          N           (default)
NO. OF DESIGN LANES            2
DEFLECTION DF                  *           (computed, if necessary)
SDWK NO. OF DESIGN LANES       *           (computed, if necessary)
SDWK DEFLECTION DF             *           (computed, if necessary)

```

Madawaska Minor Stringer CL-625-ONT Truck Oper
INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
 SPAN LENGTH 19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
 NONCOMPOSITE/COMPOSITE N
 WEB YIELD STRENGTH 30 ksi
 TOP FLANGE YLD. STRENGTH 30 ksi
 BOT. FLANGE YLD. STRENGTH 30 ksi
 CLAS.STRENGTH WELD METAL 70. ksi (default)
 WEB TENSILE STRENGTH * ksi (computed, if necessary)
 TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
 BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
 START DISTANCE 0 ft
 END SPAN NUMBER 1
 END DISTANCE 19.5416 ft
 MATERIAL ID NUMBER 1
 WEB DEPTH VARIATION C
 WEB DEPTH 13.756 in
 %WARNING - <APL>:
 Real value out of range
 The value entered for WEB DEPTH is
 less than the lower range limit.
 Value Entered: 13.756
 Valid values are between 18. and 144.

WEB THICK. 0.41 in
 TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for TOP PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
 BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
 Real value out of range
 The value entered for BOT. PLATE WIDTH is
 less than the lower range limit.
 Value Entered: 5.5
 Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
 HAUNCH DEPTH 0. in (default)
 DECK REINF. AREA 0. in^2/ft (default)
 DECK REINF. C.G. DIST. 0. in (default)

Madawaska Minor Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Minor Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.35
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	11.240 kip
AXLE SPACING	11.81 ft
AXLE LOAD	31.473 kip
AXLE SPACING	3.94 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	39.342 kip
AXLE SPACING	21.65 ft
AXLE LOAD	26.977 kip
AXLE SPACING	0 ft

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Minor Stringer CL-625-ONT Truck Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.250		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment	Shear		
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment	Shear		
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID	L S	H E	V Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)

Madawaska Minor Stringer CL-625-ONT Truck Oper
INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Start Span Dist. (ft)	End No.	End Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	11.240 26.977	11.810 0.000	31.473	3.940	31.473	21.650	39.342	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer CL-625-ONT Truck Oper

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer CL-625-ONT Truck Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties		Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment Mp (k-ft)		
1	0.000	N/A	N/A	167.8	6.691	1.65
1	0.977	N/A	N/A	167.8	6.691	1.65
1	1.954	N/A	N/A	167.8	6.691	1.65
1	2.931	N/A	N/A	167.8	6.691	1.65
1	3.908	N/A	N/A	167.8	6.691	1.65
1	4.885	N/A	N/A	167.8	6.691	1.65
1	5.863	N/A	N/A	167.8	6.691	1.65
1	6.840	N/A	N/A	167.8	6.691	1.65
1	7.817	N/A	N/A	167.8	6.691	1.65
1	8.794	N/A	N/A	167.8	6.691	1.65
1	9.771L	N/A	N/A	167.8	6.691	1.65
1	9.771R	N/A	N/A	167.8	6.691	1.65
1	10.748	N/A	N/A	167.8	6.691	1.65
1	11.725	N/A	N/A	167.8	6.691	1.65
1	12.702	N/A	N/A	167.8	6.691	1.65
1	13.679	N/A	N/A	167.8	6.691	1.65
1	14.656	N/A	N/A	167.8	6.691	1.65
1	15.633	N/A	N/A	167.8	6.691	1.65
1	16.610	N/A	N/A	167.8	6.691	1.65
1	17.588	N/A	N/A	167.8	6.691	1.65
1	18.565	N/A	N/A	167.8	6.691	1.65
1	19.542	N/A	N/A	167.8	6.691	1.65

Madawaska Minor Stringer CL-625-ONT Truck Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated $N_i * N_d * N_r$	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	17.4	41.30	0.0	0.00
1	1.954	32.4	38.52	0.0	0.00
1	2.931	45.0	35.74	0.0	0.00
1	3.908	55.5	33.01	0.0	0.00
1	4.885	64.4	30.65	0.0	0.00
1	5.863	71.3	28.29	0.0	0.00
1	6.840	76.3	2.32	0.0	0.00
1	7.817	79.2	23.57	0.0	0.00
1	8.794	80.2	21.21	0.0	0.00
1	9.771L	79.2	-18.85	0.0	0.00
1	9.771R	79.2	-18.85	0.0	0.00
1	10.748	80.2	-21.21	0.0	0.00
1	11.725	79.2	-23.57	0.0	0.00
1	12.702	76.3	-25.93	0.0	0.00
1	13.679	71.3	-28.29	0.0	0.00
1	14.656	64.4	-30.65	0.0	0.00
1	15.633	55.5	-33.01	0.0	0.00
1	16.610	45.0	-35.74	0.0	0.00

Madawaska Minor Stringer CL-625-ONT Truck Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	32.4	-38.52	0.0	0.00
1	18.565	17.4	-41.30	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	44.09	0.0	0.00	0.0	0.000
1	0.977	41.30	17.4	-1.48	11.8	0.052
1	1.954	38.52	32.4	-2.95	22.3	0.102
1	2.931	35.74	45.0	-4.43	31.6	0.150
1	3.908	33.01	55.5	-5.90	39.7	0.193
1	4.885	30.65	64.4	-7.38	46.5	0.232
1	5.863	28.29	71.3	-9.40	55.3	0.267
1	6.840	25.93	76.3	-11.76	64.3	0.297
1	7.817	23.57	79.2	-14.12	71.2	0.320
1	8.794	21.21	80.2	-16.49	76.2	0.326
1	9.771L	18.85	79.2	-18.85	79.2	0.327
1	9.771R	18.85	79.2	-18.85	79.2	0.327
1	10.748	16.49	76.2	-21.21	80.2	0.326
1	11.725	14.12	71.2	-23.57	79.2	0.320
1	12.702	11.76	64.3	-25.93	76.3	0.297
1	13.679	9.40	55.3	-28.29	71.3	0.267
1	14.656	7.38	46.5	-30.65	64.4	0.232
1	15.633	5.90	39.7	-33.01	55.5	0.193
1	16.610	4.43	31.6	-35.74	45.0	0.150
1	17.588	2.95	22.3	-38.52	32.4	0.102
1	18.565	1.48	11.8	-41.30	17.4	0.052
1	19.542	0.00	0.0	-44.09	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	44.09	0.00	0.000000	-0.005210
2	44.09	0.00	0.005210	0.000000

Madawaska Minor Stringer CL-625-ONT Truck Oper

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	58.78	0.00	0.00	0.00
2	58.78	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.016154
2	0.016154	0.000000

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	3.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-6.9	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-9.6	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	8.794	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	9.771L	TOP	SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	9.771R	TOP	SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.2	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.2	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-17.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	17.0	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-16.3	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	16.3	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-15.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	15.3	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-13.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	13.8	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	9.6	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.9	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	60.61	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.4	56.74	N/A*	-5.23	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.6	52.88	N/A*	-9.77	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.5	49.01	N/A*	-13.60	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	78.3	45.22	N/A*	-16.77	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	90.9	41.92	N/A*	-19.47	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	100.8	38.63	N/A*	-21.57	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	107.8	35.33	N/A*	-23.08	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	32.03	N/A*	-23.99	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	113.5	28.74	N/A*	-24.31	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	112.2	25.44	N/A*	-24.03	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	112.2	25.44	N/A*	-24.03	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	113.5	-28.74	N/A*	-24.31	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-32.03	N/A*	-23.99	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	107.8	-35.33	N/A*	-23.08	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	100.8	-38.63	N/A*	-21.57	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	90.9	-41.92	N/A*	-19.47	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	78.3	-45.22	N/A*	-16.77	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.5	-49.01	N/A*	-13.60	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.6	-52.88	N/A*	-9.77	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.4	-56.74	N/A*	-5.23	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-60.61	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	24.4	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	45.6	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	63.5	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	78.3	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	90.9	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	100.8	D	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	107.8	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	7.817	STR-I	POS.	167.8	112.1	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	8.794	STR-I	POS.	167.8	113.5	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
1	9.771L	STR-I	POS.	167.8	112.2	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	9.771R	STR-I	POS.	167.8	112.2	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	10.748	STR-I	POS.	167.8	113.5	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	112.1	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	12.702	STR-V	POS.	167.8	5.1	D	
		STR-I	POS.	167.8	107.8	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
1	13.679	STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
		STR-I	POS.	167.8	100.8	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
1	14.656	STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
		STR-I	POS.	167.8	90.9	D	
		STR-IA	POS.	167.8	4.0	D	
1	15.633	STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
		STR-I	POS.	167.8	78.3	D	
1	16.610	STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	63.5	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	45.6	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	24.4	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3			Appendix A		
			State							Lr*	Cb*	Lr*	Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.214	18.66	1.214	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-29.7 B	139.	-29.7 B	168.	E	168.	E	168.	N/A	114.	
			STR-IA	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+**	Effects +Lateral Moment M+**	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	1.954	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	2.931	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	3.908	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	4.885	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	5.863	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-29.7	B	139.	-29.7	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)	
1	11.725	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	12.702	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	13.679	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	14.656	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	15.633	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	16.610	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	17.588	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local	Governing			Local	Governing			Flexural+Lateral	Moment		
					Fr (ksi)	*	Mr(e)** (kip-ft)	Fr (ksi)	*	Mr (kip-ft)	*	Mr (kip-ft)	*	F+** (ksi)		M+** (kip-ft)
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-29.7	B	139.	-29.7	B	168.	E	168.	E	N/A	114.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Minor Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	60.61	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	56.74	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	52.88	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	49.01	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	45.22	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	41.92	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	38.63	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	35.33	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	32.03	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	28.74	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	25.44	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	25.44	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-28.74	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-32.03	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-35.33	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-38.63	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-41.92	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-45.22	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-49.01	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-52.88	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-56.74	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-60.61	U	
		STR-IA	89.44	-1.09	U	

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.501	105.5	1	0.000	STR-I
	Shear		1.484	104.3	1	0.000	STR-I
	Controlling		1.484	104.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	108.	1.501*	
1	1.954	STR-I	POS.	168.	5.	108.	1.501*	
1	2.931	STR-I	POS.	168.	5.	108.	1.501*	
1	3.908	STR-I	POS.	168.	5.	108.	1.501*	
1	4.885	STR-I	POS.	168.	5.	108.	1.501*	
1	5.863	STR-I	POS.	168.	5.	108.	1.501*	
1	6.840	STR-I	POS.	168.	5.	108.	1.501*	
1	7.817	STR-I	POS.	168.	5.	108.	1.501*	
1	8.794	STR-I	POS.	168.	5.	108.	1.501	
1	9.771L	STR-I	POS.	168.	5.	108.	1.501*	
1	9.771R	STR-I	POS.	168.	5.	108.	1.501*	
1	10.748	STR-I	POS.	168.	5.	108.	1.501	
1	11.725	STR-I	POS.	168.	5.	108.	1.501*	
1	12.702	STR-I	POS.	168.	5.	108.	1.501*	
1	13.679	STR-I	POS.	168.	5.	108.	1.501*	
1	14.656	STR-I	POS.	168.	5.	108.	1.501*	

Madawaska Minor Stringer CL-625-ONT Truck Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	108.	1.501*	
1	16.610	STR-I	POS.	168.	5.	108.	1.501*	
1	17.588	STR-I	POS.	168.	5.	108.	1.501*	
1	18.565	STR-I	POS.	168.	5.	108.	1.501*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	59.52	1.484	
1	0.977	STR-I	POS.	89.44	0.98	55.76	1.586	
1	1.954	STR-I	POS.	89.44	0.87	52.00	1.703	
1	2.931	STR-I	POS.	89.44	0.77	48.25	1.838	
1	3.908	STR-I	POS.	89.44	0.66	44.56	1.992	
1	4.885	STR-I	POS.	89.44	0.55	41.37	2.148	
1	5.863	STR-I	POS.	89.44	0.44	38.19	2.331	
1	6.840	STR-I	POS.	89.44	0.33	35.00	2.546	
1	7.817	STR-I	POS.	89.44	0.22	31.81	2.804	
1	8.794	STR-I	POS.	89.44	0.11	28.63	3.120	
1	9.771L	STR-I	POS.	89.44	0.00	25.44	3.515	
1	9.771R	STR-I	POS.	89.44	0.00	25.44	3.515	
1	10.748	STR-I	NEG.	89.44	-0.11	-28.63	3.120	

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-31.81	2.804	
1	12.702	STR-I	NEG.	89.44	-0.33	-35.00	2.546	
1	13.679	STR-I	NEG.	89.44	-0.44	-38.19	2.331	
1	14.656	STR-I	NEG.	89.44	-0.55	-41.37	2.148	
1	15.633	STR-I	NEG.	89.44	-0.66	-44.56	1.992	
1	16.610	STR-I	NEG.	89.44	-0.77	-48.25	1.838	
1	17.588	STR-I	NEG.	89.44	-0.87	-52.00	1.703	
1	18.565	STR-I	NEG.	89.44	-0.98	-55.76	1.586	
1	19.542	STR-I	NEG.	89.44	-1.09	-59.52	1.484	

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	35.27	0.004168

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	44.09	-0.005210
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	44.09	0.005210

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	58.78
2	SPECIAL #1	0.00	58.78

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer CL-625-ONT Truck Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		58.78	
2	SPECIAL #1	0.00		58.78	

Note: Impact must be added for pier cap design

Madawaska Minor Stringer CL-625-ONT Truck Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Shear		1.484	104.3	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.600
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 1.48S

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 167.83 Span Length(ft) = 19.54
 Location (ft) 2.93

Maximum Factored Shear Resistance (kips) 89.44
 Location (ft) 0.00

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Minor Stringer CL-625-ONT Truck Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK
DEFLECTION LIMITS FOR LIVE LOAD

 Madawaska Minor Stringer CL-625-ONT Truck Oper

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor CL-625-ONT Truck Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	10
BEAM GEOMETRY.....	10
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
SKEW ANGLES.....	11
SPAN LENGTHS.....	11
MATERIAL PROPERTIES.....	11
PLATE GIRDER PROPERTIES, PART 1 of 2.....	11
PLATE GIRDER PROPERTIES, PART 2 of 2.....	11
SECTION LOSSES.....	11
SLAB PROPERTIES, PART 1 OF 2.....	12
SLAB PROPERTIES, PART 2 OF 2.....	12
LOAD FACTORS.....	12
DISTRIBUTED LOADS (DC1).....	12
SPECIAL LIVE LOADING.....	13
SPECIAL AXLE LOAD.....	13
BRACE POINTS.....	13
SYSTEM SETTINGS.....	13
SECTION PROPERTIES.....	14
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	15
ANALYSIS.....	16
LOAD FACTORS AND COMBINATIONS.....	16
LIVE LOADING SUMMARY.....	16
LOAD MODIFIER.....	16
RESISTANCE FACTORS.....	17
DEAD LOADS.....	17
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	17
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	17

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	18
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	18
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	18
BEAM WEIGHT ANALYSIS - REACTIONS.....	18
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	19
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	19
TOTAL DC1 ANALYSIS - REACTIONS.....	20
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	20
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 - ANALYSIS.....	23
UNFACTORED FLEXURAL STRESSES.....	23
USER INPUT LATERAL STRESSES.....	32
FACTORED ANALYSIS RESULTS.....	32
FACTORED LATERAL STRESSES.....	38
SPECIAL #1 - SPECIFICATION CHECKING.....	39
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	39
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	43
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	47
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	50
FLANGE LATERAL CAPACITY.....	55
NET SECTION FRACTURE CHECK.....	55
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	55
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	59
SHEAR CAPACITY.....	61
SPECIAL #1 - RATINGS W/O FWS.....	66
RATING FACTORS - SUMMARY.....	66
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	66
RATING FACTORS - SHEAR CAPACITY.....	67
SUMMARY - OVERALL REACTIONS.....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	70
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	71
DL REACTIONS (UNFACTORED) PER GIRDER.....	71
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	71
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	72
DL REACTIONS (UNFACTORED) PER GIRDER.....	72
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	72
OVERALL RATING SUMMARY W/O FWS.....	73

RATING FACTORS - OVERALL SUMMARY W/O FWS.....	73
BRIDGE LOAD RATINGS W/O FWS.....	73
SUMMARY - SPECIFICATION CHECKS.....	74
SPECIFICATION CHECK WARNINGS.....	74
SPECIFICATION CHECK FAILURES.....	75

MINOR SECTION LOSS
CL-625-ONT LANE LOAD
INVENTORY RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Minor Stringer CL-625-ONT Lane Inv
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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Madawaska Minor Stringer CL-625-ONT Lane Inv
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer CL-625-ONT Lane Inv
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer CL-625-ONT Lane Inv
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.0
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.63,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Minor Stringer CL-625-ONT Lane Inv
INPUT (cont.)

INPUT COMMANDS

```

COMMAND:  CFG
NO. OF LINES PER PAGE          58
NO. OF TOP BLANK LINES         0

COMMAND:  CTL
SYSTEM OF UNITS                 US          (default)
DESIGN/ANALYSIS                 A
TYPE OF BEAM                   PG
EXTERIOR/INTERIOR              I
NO. OF BEAMS                   9
NO. OF SPANS                   1
SYMMETRY                       N
DECK POUR SYMMETRY            N
ADTT FOR SINGLE LANE          168
MULT. PRES. ADJ. FACTOR       1.0          (default)
LIVE LOAD                      E
DYNAMIC LOAD ALLOWANCE        1.0
FATIGUE DYN. LOAD ALLOW.      1.15          (default)
PA TRAFFIC FACTOR              1.20          (default)
REDISTRIBUTE NEG. MOMENTS      N          (default)
IMPORTANCE FACTOR              1.0          (default)
DUCTILITY FACTOR               1.0          (default)
REDUNDANCY FACTOR              1.0          (default)
REDUNDANT LOAD PATH            R          (default)
OUTPUT POINTS                  2          (default)
P-82 DYN. LOAD ALLOW.          1.20          (default)
SKEW ANGLE DESIGNATION         P          (default)
CONSTANT LATERAL STRESS        0. ksi      (default)
DC1S PERCENTAGE                0.          (default)

COMMAND:  GEO
BEAM/STRINGER SPACING          2.583 ft
  %WARNING - <GEO>:
    Real value out of range
    The value entered for BEAM/STRINGER SPACING is
    less than the lower range limit.
    Value Entered: 2.583
    Valid values are between 3. and 18.
DECK OVERHANG                   * ft      (computed, if necessary)
STAGGERED DIAPHRAGMS           N          (default)
NO. OF DESIGN LANES             2
DEFLECTION DF                   *          (computed, if necessary)
SDWK NO. OF DESIGN LANES        *          (computed, if necessary)
SDWK DEFLECTION DF              *          (computed, if necessary)

```

Madawaska Minor Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Minor Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Minor Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Minor Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.63
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.617 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	8.992 kip
AXLE SPACING	11.81 ft
AXLE LOAD	25.179 kip
AXLE SPACING	3.94 ft
AXLE LOAD	25.179 kip
AXLE SPACING	21.65 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	21.582 kip
AXLE SPACING	0 ft

Madawaska Minor Stringer CL-625-ONT Lane InvINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
 VEHICLE RATING SUMMARY 1
 DETAILED RATING FACTORS 1
 OVERALL RATING SUMMARY 1
 RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
 CONSTRUCT. MODULAR RATIO * (computed, if necessary)
 INC. FLG. IN HAUNCH WGT. Y (default)
 AASHTO/PENNDOT SPECS P (default)
 PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

Madawaska Minor Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

CONTROL PARAMETERS

Units US	Design/ Analysis ANALYSIS	Type of Beam PLATE GIRDER	Exterior/ Interior INTERIOR	No. Beams 9	No. Spans 1	Symmetry NO	Deck Pour Symmetry NO
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.000	Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO	
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00
							DC1S Percentage 0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft) 2.583	Deck Overhang (ft)	Staggered Diaphragms NO	Number of Design Lanes 2	Deflection Distribution Factor

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.258	DF2 0.258	DF1 0.600	DF2 0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No. 1	DF1 0.000	DF2 0.000	DF1 0.000	DF2 0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

	Support No.	Reaction DF
	1	0.600
	2	0.600

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Support No.	Reaction DF
	1	0.000
	2	0.000

Madawaska Minor Stringer CL-625-ONT Lane Inv
INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)

Madawaska Minor Stringer CL-625-ONT Lane Inv
INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.630	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

Madawaska Minor Stringer CL-625-ONT Lane Inv
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992 21.582	11.810 0.000	25.179	3.940	25.179	21.650	31.473	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer CL-625-ONT Lane Inv

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer CL-625-ONT Lane Inv

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties N.A. to Top Slab (in)	Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

Madawaska Minor Stringer CL-625-ONT Lane Inv
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.63	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier Used	Fatigue Load Modifier Used
Ni	Nd	Nr	Ni*Nd*Nr		
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Minor Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00

Madawaska Minor Stringer CL-625-ONT Lane Inv
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	23.5	-27.55	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 ANALYSIS (cont.)

 SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

 SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	9.771R	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	14.656	TOP	SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
		BOT	SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	52.98	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.39	N/A*	-4.60	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.2	45.84	N/A*	-8.60	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	56.0	42.31	N/A*	-12.00	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	69.2	38.86	N/A*	-14.82	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	80.5	35.84	N/A*	-17.23	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	89.3	32.84	N/A*	-19.12	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	95.7	29.87	N/A*	-20.49	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	99.7	26.93	N/A*	-21.34	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	101.2	24.02	N/A*	-21.67	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. Top Bm. Top S/R (ksi) (ksi) (ksi)	Compress. Limits* 0.6*f'c 0.85*f'c (ksi) (ksi)	Code Chk**
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13 0.00	N/A**
		SERV-I	POS.	4.2	0.09	0.91 -0.91	0.00	N/A**
		SERV-II	POS.	4.2	0.09	0.91 -0.91	0.00	N/A**
		SERV-IIA	POS.	4.2	0.09	0.91 -0.91	0.00	N/A**
		SERV-IIB	POS.	4.2	0.09	0.91 -0.91	0.00	N/A**
1	9.771L	STR-I	POS.	100.3	21.13	N/A*	-21.48 0.00	N/A**
		STR-IA	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		STR-II	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		STR-III	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		STR-IV	POS.	6.4	0.00	N/A*	-1.37 0.00	N/A**
		STR-V	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		SERV-I	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
		SERV-II	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
		SERV-IIA	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
		SERV-IIB	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
1	9.771R	STR-I	POS.	100.3	21.13	N/A*	-21.48 0.00	N/A**
		STR-IA	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		STR-II	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		STR-III	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		STR-IV	POS.	6.4	0.00	N/A*	-1.37 0.00	N/A**
		STR-V	POS.	5.3	0.00	N/A*	-1.14 0.00	N/A**
		SERV-I	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
		SERV-II	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
		SERV-IIA	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
		SERV-IIB	POS.	4.3	0.00	0.91 -0.91	0.00	N/A**
1	10.748	STR-I	POS.	101.2	-24.02	N/A*	-21.67 0.00	N/A**
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13 0.00	N/A**
		STR-II	POS.	5.3	-0.11	N/A*	-1.13 0.00	N/A**
		STR-III	POS.	5.3	-0.11	N/A*	-1.13 0.00	N/A**
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36 0.00	N/A**
		STR-V	POS.	5.3	-0.11	N/A*	-1.13 0.00	N/A**
		SERV-I	POS.	4.2	-0.09	0.91 -0.91	0.00	N/A**
		SERV-II	POS.	4.2	-0.09	0.91 -0.91	0.00	N/A**
		SERV-IIA	POS.	4.2	-0.09	0.91 -0.91	0.00	N/A**
		SERV-IIB	POS.	4.2	-0.09	0.91 -0.91	0.00	N/A**
1	11.725	STR-I	POS.	99.7	-26.93	N/A*	-21.34 0.00	N/A**
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10 0.00	N/A**
		STR-II	POS.	5.1	-0.22	N/A*	-1.10 0.00	N/A**
		STR-III	POS.	5.1	-0.22	N/A*	-1.10 0.00	N/A**
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32 0.00	N/A**
		STR-V	POS.	5.1	-0.22	N/A*	-1.10 0.00	N/A**
		SERV-I	POS.	4.1	-0.17	0.88 -0.88	0.00	N/A**

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	95.7	-29.87	N/A*	-20.49	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	89.3	-32.84	N/A*	-19.12	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	80.5	-35.84	N/A*	-17.23	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	69.2	-38.86	N/A*	-14.82	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	56.0	-42.31	N/A*	-12.00	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.2	-45.84	N/A*	-8.60	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.39	N/A*	-4.60	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-52.98	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	21.5	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	40.2	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	56.0	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	69.2	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	80.5	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	89.3	D	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	95.7	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	7.817	STR-I	POS.	167.8	99.7	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	8.794	STR-I	POS.	167.8	101.2	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
1	9.771L	STR-I	POS.	167.8	100.3	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	9.771R	STR-I	POS.	167.8	100.3	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	10.748	STR-I	POS.	167.8	101.2	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	99.7	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	12.702	STR-V	POS.	167.8	5.1	D	
		STR-I	POS.	167.8	95.7	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
1	13.679	STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
		STR-I	POS.	167.8	89.3	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
1	14.656	STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
		STR-I	POS.	167.8	80.5	D	
		STR-IA	POS.	167.8	4.0	D	
1	15.633	STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
		STR-I	POS.	167.8	69.2	D	
1	16.610	STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	56.0	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	40.2	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	21.5	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10	8.2.3	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)	Cb*	(ft)		(kip-ft)	
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.225	18.66	1.225	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of $R_b R_h F_y c$ under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F_{+}^{***} (ksi)	Effects Lateral Moment M_{+}^{***} (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-30.0 B	140.	-30.0 B	140.	168. E	168. E	168. E	168. E	N/A	101.	
			STR-IA	P	-30.0 B	140.	-30.0 B	140.	168. E	168. E	168. E	168. E	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	140.	168. E	168. E	168. E	168. E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+**	Effects +Lateral Moment M+**	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* Fr (ksi)			
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	1.954	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	2.931	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	3.908	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	4.885	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	5.863	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance					Appendix A Flexural Resistance					Factored Effects		Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Fr (ksi)	F+** (ksi)	M+** (kip-ft)	
1	11.725	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4		N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
1	12.702	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4		N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
1	13.679	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4		N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
1	14.656	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4		N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
1	15.633	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4		N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
1	16.610	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4		N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	
1	17.588	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A		101.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1		N/A	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Flexural Stress F+*** (ksi)	Lateral Moment M+*** (kip-ft)	
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	101.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Factored Flexural Stress Fr (ksi)	Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc*	Rh*	Mr(e)*	Fcrw*	fc*	
					(in)		(kip-ft)	(ksi)	(ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	52.98	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	49.39	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	45.84	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	42.31	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	38.86	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	35.84	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	32.84	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	29.87	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	26.93	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	24.02	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	21.13	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	21.13	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-24.02	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-26.93	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-29.87	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-32.84	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-35.84	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-38.86	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-42.31	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-45.84	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-49.39	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-52.98	U	
		STR-IA	89.44	-1.09	U	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - SPECIFICATION CHECKING (cont.)
-----SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.695	95.2	1	0.000	STR-I
	Shear		1.703	95.7	1	0.000	STR-I
	Controlling		1.695	95.2	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	96.	1.695*	
1	1.954	STR-I	POS.	168.	5.	96.	1.695*	
1	2.931	STR-I	POS.	168.	5.	96.	1.695*	
1	3.908	STR-I	POS.	168.	5.	96.	1.695*	
1	4.885	STR-I	POS.	168.	5.	96.	1.695*	
1	5.863	STR-I	POS.	168.	5.	96.	1.695*	
1	6.840	STR-I	POS.	168.	5.	96.	1.695*	
1	7.817	STR-I	POS.	168.	5.	96.	1.695*	
1	8.794	STR-I	POS.	168.	5.	96.	1.695	
1	9.771L	STR-I	POS.	168.	5.	96.	1.695*	
1	9.771R	STR-I	POS.	168.	5.	96.	1.695*	
1	10.748	STR-I	POS.	168.	5.	96.	1.695	
1	11.725	STR-I	POS.	168.	5.	96.	1.695*	
1	12.702	STR-I	POS.	168.	5.	96.	1.695*	
1	13.679	STR-I	POS.	168.	5.	96.	1.695*	
1	14.656	STR-I	POS.	168.	5.	96.	1.695*	

Madawaska Minor Stringer CL-625-ONT Lane Inv
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	96.	1.695*	
1	16.610	STR-I	POS.	168.	5.	96.	1.695*	
1	17.588	STR-I	POS.	168.	5.	96.	1.695*	
1	18.565	STR-I	POS.	168.	5.	96.	1.695*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	51.89	1.703	
1	0.977	STR-I	POS.	89.44	0.98	48.41	1.827	
1	1.954	STR-I	POS.	89.44	0.87	44.96	1.970	
1	2.931	STR-I	POS.	89.44	0.77	41.54	2.134	
1	3.908	STR-I	POS.	89.44	0.66	38.21	2.324	
1	4.885	STR-I	POS.	89.44	0.55	35.29	2.519	
1	5.863	STR-I	POS.	89.44	0.44	32.40	2.747	
1	6.840	STR-I	POS.	89.44	0.33	29.54	3.017	
1	7.817	STR-I	POS.	89.44	0.22	26.71	3.340	
1	8.794	STR-I	POS.	89.44	0.11	23.91	3.737	
1	9.771L	STR-I	POS.	89.44	0.00	21.13	4.232	
1	9.771R	STR-I	POS.	89.44	0.00	21.13	4.232	
1	10.748	STR-I	NEG.	89.44	-0.11	-23.91	3.737	

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-26.71	3.340	
1	12.702	STR-I	NEG.	89.44	-0.33	-29.54	3.017	
1	13.679	STR-I	NEG.	89.44	-0.44	-32.40	2.747	
1	14.656	STR-I	NEG.	89.44	-0.55	-35.29	2.519	
1	15.633	STR-I	NEG.	89.44	-0.66	-38.21	2.324	
1	16.610	STR-I	NEG.	89.44	-0.77	-41.54	2.134	
1	17.588	STR-I	NEG.	89.44	-0.87	-44.96	1.970	
1	18.565	STR-I	NEG.	89.44	-0.98	-48.41	1.827	
1	19.542	STR-I	NEG.	89.44	-1.09	-51.89	1.703	

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

Madawaska Minor Stringer CL-625-ONT Lane Inv
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer CL-625-ONT Lane Inv
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Maximum Reaction Vehicle LC (kips)
1	SPECIAL #1	0.00	47.03
2	SPECIAL #1	0.00	47.03

Note: Impact must be added for pier cap design

Madawaska Minor Stringer CL-625-ONT Lane Inv
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	1.695	95.2	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 INVENTORY Dist. Fact. 0.258
 RATING Loc. (ft) 0.000
 (IR) Limit State STR-I
 RF 1.69M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches
 SPECIAL #1
 OPERATING Dist. Fact. ---
 RATING Loc. (ft) ---
 (OR) Limit State ---
 RF ---

Maximum Factored Flexural Resistance (kip-ft) 167.83 Span Length(ft) = 19.54
 Location (ft) 2.93

Maximum Factored Shear Resistance (kips) 89.44
 Location (ft) 0.00

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR
 USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR
 LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN
 LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Minor Stringer CL-625-ONT Lane Inv
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

Madawaska Minor Stringer CL-625-ONT Lane Inv

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor CL-625-ONT Lane Inv.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	10
BEAM GEOMETRY.....	10
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
SKEW ANGLES.....	11
SPAN LENGTHS.....	11
MATERIAL PROPERTIES.....	11
PLATE GIRDER PROPERTIES, PART 1 of 2.....	11
PLATE GIRDER PROPERTIES, PART 2 of 2.....	11
SECTION LOSSES.....	11
SLAB PROPERTIES, PART 1 OF 2.....	12
SLAB PROPERTIES, PART 2 OF 2.....	12
LOAD FACTORS.....	12
DISTRIBUTED LOADS (DC1).....	12
SPECIAL LIVE LOADING.....	13
SPECIAL AXLE LOAD.....	13
BRACE POINTS.....	13
SYSTEM SETTINGS.....	13
SECTION PROPERTIES.....	14
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	15
ANALYSIS.....	16
LOAD FACTORS AND COMBINATIONS.....	16
LIVE LOADING SUMMARY.....	16
LOAD MODIFIER.....	16
RESISTANCE FACTORS.....	17
DEAD LOADS.....	17
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	17
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	17

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	18
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	18
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	18
BEAM WEIGHT ANALYSIS - REACTIONS.....	18
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	19
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	19
TOTAL DC1 ANALYSIS - REACTIONS.....	20
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	20
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 - ANALYSIS.....	23
UNFACTORED FLEXURAL STRESSES.....	23
USER INPUT LATERAL STRESSES.....	32
FACTORED ANALYSIS RESULTS.....	32
FACTORED LATERAL STRESSES.....	38
SPECIAL #1 - SPECIFICATION CHECKING.....	39
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	39
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	43
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	47
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	50
FLANGE LATERAL CAPACITY.....	55
NET SECTION FRACTURE CHECK.....	55
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	55
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	59
SHEAR CAPACITY.....	61
SPECIAL #1 - RATINGS W/O FWS.....	66
RATING FACTORS - SUMMARY.....	66
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	66
RATING FACTORS - SHEAR CAPACITY.....	67
SUMMARY - OVERALL REACTIONS.....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	70
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	71
DL REACTIONS (UNFACTORED) PER GIRDER.....	71
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	71
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	72
DL REACTIONS (UNFACTORED) PER GIRDER.....	72
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	72
OVERALL RATING SUMMARY W/O FWS.....	73

RATING FACTORS - OVERALL SUMMARY W/O FWS.....	73
BRIDGE LOAD RATINGS W/O FWS.....	73
SUMMARY - SPECIFICATION CHECKS.....	74
SPECIFICATION CHECK WARNINGS.....	74
SPECIFICATION CHECK FAILURES.....	75

MINOR SECTION LOSS
CL-625-ONT LANE LOAD
OPERATING RATING

```

*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Minor Stringer CL-625-ONT Lane Oper
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
*
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Madawaska Minor Stringer CL-625-ONT Lane Oper
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer CL-625-ONT Lane Oper
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer CL-625-ONT Lane Oper
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E,1.00
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.35,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0.617,0
SAL 1,8.992,11.81,25.179,3.94,25.179,21.65,31.473,21.65,21.582,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

 INPUT COMMANDS

COMMAND: CFG
 NO. OF LINES PER PAGE 58
 NO. OF TOP BLANK LINES 0

COMMAND: CTL
 SYSTEM OF UNITS US (default)
 DESIGN/ANALYSIS A
 TYPE OF BEAM PG
 EXTERIOR/INTERIOR I
 NO. OF BEAMS 9
 NO. OF SPANS 1
 SYMMETRY N
 DECK POUR SYMMETRY N
 ADTT FOR SINGLE LANE 168
 MULT. PRES. ADJ. FACTOR 1.0 (default)
 LIVE LOAD E
 DYNAMIC LOAD ALLOWANCE 1.00
 FATIGUE DYN. LOAD ALLOW. 1.15 (default)
 PA TRAFFIC FACTOR 1.20 (default)
 REDISTRIBUTE NEG. MOMENTS N (default)
 IMPORTANCE FACTOR 1.0 (default)
 DUCTILITY FACTOR 1.0 (default)
 REDUNDANCY FACTOR 1.0 (default)
 REDUNDANT LOAD PATH R (default)
 OUTPUT POINTS 2 (default)
 P-82 DYN. LOAD ALLOW. 1.20 (default)
 SKEW ANGLE DESIGNATION P (default)
 CONSTANT LATERAL STRESS 0. ksi (default)
 DC1S PERCENTAGE 0. (default)

COMMAND: GEO
 BEAM/STRINGER SPACING 2.583 ft
 %WARNING - <GEO>:
 Real value out of range
 The value entered for BEAM/STRINGER SPACING is
 less than the lower range limit.
 Value Entered: 2.583
 Valid values are between 3. and 18.
 DECK OVERHANG * ft (computed, if necessary)
 STAGGERED DIAPHRAGMS N (default)
 NO. OF DESIGN LANES 2
 DEFLECTION DF * (computed, if necessary)
 SDWK NO. OF DESIGN LANES * (computed, if necessary)
 SDWK DEFLECTION DF * (computed, if necessary)

Madawaska Minor Stringer CL-625-ONT Lane OperINPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Minor Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER 1
SPAN LENGTH 19.54166666 ft

COMMAND: MAT

MATERIAL ID NUMBER 1
NONCOMPOSITE/COMPOSITE N
WEB YIELD STRENGTH 30 ksi
TOP FLANGE YLD. STRENGTH 30 ksi
BOT. FLANGE YLD. STRENGTH 30 ksi
CLAS.STRENGTH WELD METAL 70. ksi (default)
WEB TENSILE STRENGTH * ksi (computed, if necessary)
TOP FLANGE TENSILE STR. * ksi (computed, if necessary)
BOT FLANGE TENSILE STR. * ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER 1
START DISTANCE 0 ft
END SPAN NUMBER 1
END DISTANCE 19.5416 ft
MATERIAL ID NUMBER 1
WEB DEPTH VARIATION C
WEB DEPTH 13.756 in
%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK. 0.41 in
TOP PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK. 0.622 in
BOT. PLATE WIDTH 5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK. 0.622 in
HAUNCH DEPTH 0. in (default)
DECK REINF. AREA 0. in^2/ft (default)
DECK REINF. C.G. DIST. 0. in (default)

Madawaska Minor Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Minor Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.35
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0.617 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	8.992 kip
AXLE SPACING	11.81 ft
AXLE LOAD	25.179 kip
AXLE SPACING	3.94 ft
AXLE LOAD	25.179 kip
AXLE SPACING	21.65 ft
AXLE LOAD	31.473 kip
AXLE SPACING	21.65 ft
AXLE LOAD	21.582 kip
AXLE SPACING	0 ft

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

 INPUT COMMANDS (cont.)

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

COMMAND: OSC

DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0

Madawaska Minor Stringer CL-625-ONT Lane Oper
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: ORF
VEHICLE RATING SUMMARY 1
DETAILED RATING FACTORS 1
OVERALL RATING SUMMARY 1
RATINGS W/O FWS 1

The following are system settings:

STEEL DENSITY/WEIGHT 490. lbf/ft^3 (default)
CONSTRUCT. MODULAR RATIO * (computed, if necessary)
INC. FLG. IN HAUNCH WGT. Y (default)
AASHTO/PENNDOT SPECS P (default)
PRINT DIMENSION FILE N (default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)

For Material ID No. 1:

Web yield of 30. ksi is less than 36. ksi

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

Madawaska Minor Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry	
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO	
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.000	Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction	DF
1	0.600	
2	0.600	

USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction	DF
1	0.000	
2	0.000	

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

SKEW ANGLES

Support		1	2
Angle (deg)	90.000	90.000	
Apply skew	N	N	

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	F l a n g e		P l a t e		Classification Strength of Weld Metal (ksi)
			Top Fy (ksi)	Bottom Fy (ksi)	Top Fu (ksi)	Bottom Fu (ksi)	
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V A Y	Web Depth (in)	Web Thick. (in)	Top Plate		Bottom Plate	
								Width (in)	Thick. (in)	Width (in)	Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)

Madawaska Minor Stringer CL-625-ONT Lane Oper
INPUT (cont.)

SECTION LOSSES (cont.)

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.350	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Start Span Dist. (ft)	End No.	End Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 INPUT (cont.)

SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.617	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	8.992 21.582	11.810 0.000	25.179	3.940	25.179	21.650	31.473	21.650

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer CL-625-ONT Lane Oper

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer CL-625-ONT Lane Oper
SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	Moment of Inertia			Radius of Gyration	
				C.Flange I _{yc} (in ⁴)	T.Flange I _{yt} (in ⁴)	Y Axis I _y (in ⁴)	Steel r _y (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	Plastic Properties			Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
			N.A. to Top Slab (in)	Moment M _p (k-ft)	Depth of Web, D _{cp} (in)		
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

Madawaska Minor Stringer CL-625-ONT Lane Oper
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.35	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading
STR-I	SPECIAL #1
STR-IA	---
STR-II	---
STR-III	---
STR-IV	---
STR-V	---
SERV-I	---
SERV-II	---
SERV-IIA	---
SERV-IIB	---
FATG-I	FATIGUE
FATG-II	FATIGUE
DEFL	DEFLECT

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated $N_i * N_d * N_r$	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Minor Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.69	0.0	0.00
1	1.954	23.5	27.55	0.0	0.00
1	2.931	32.7	25.41	0.0	0.00
1	3.908	40.4	23.30	0.0	0.00
1	4.885	46.9	21.42	0.0	0.00
1	5.863	52.0	19.55	0.0	0.00
1	6.840	55.7	2.57	0.0	0.00
1	7.817	58.0	15.81	0.0	0.00
1	8.794	58.8	13.93	0.0	0.00
1	9.771L	58.3	-12.06	0.0	0.00
1	9.771R	58.3	-12.06	0.0	0.00
1	10.748	58.8	-13.93	0.0	0.00
1	11.725	58.0	-15.81	0.0	0.00
1	12.702	55.7	-17.68	0.0	0.00
1	13.679	52.0	-19.55	0.0	0.00
1	14.656	46.9	-21.42	0.0	0.00
1	15.633	40.4	-23.30	0.0	0.00
1	16.610	32.7	-25.41	0.0	0.00

Madawaska Minor Stringer CL-625-ONT Lane Oper
ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	23.5	-27.55	0.0	0.00
1	18.565	12.6	-29.69	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.83	0.0	0.00	0.0	0.000
1	0.977	29.70	12.5	-0.95	7.6	0.039
1	1.954	27.58	23.2	-1.92	14.6	0.076
1	2.931	25.49	32.1	-2.91	20.8	0.112
1	3.908	23.44	39.4	-3.92	26.4	0.144
1	4.885	21.65	45.5	-4.95	31.2	0.173
1	5.863	19.88	50.1	-6.34	37.3	0.199
1	6.840	18.12	53.3	-7.97	43.5	0.221
1	7.817	16.39	55.1	-9.62	48.5	0.238
1	8.794	14.67	55.5	-11.28	52.1	0.243
1	9.771L	12.97	54.5	-12.97	54.5	0.244
1	9.771R	12.97	54.5	-12.97	54.5	0.244
1	10.748	11.28	52.1	-14.67	55.5	0.243
1	11.725	9.62	48.5	-16.39	55.1	0.238
1	12.702	7.97	43.5	-18.12	53.3	0.221
1	13.679	6.34	37.3	-19.88	50.1	0.199
1	14.656	4.95	31.2	-21.65	45.5	0.173
1	15.633	3.92	26.4	-23.44	39.4	0.144
1	16.610	2.91	20.8	-25.49	32.1	0.112
1	17.588	1.92	14.6	-27.58	23.2	0.076
1	18.565	0.95	7.6	-29.70	12.5	0.039
1	19.542	0.00	0.0	-31.83	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.83	0.00	0.000000	-0.003888
2	31.83	0.00	0.003888	0.000000

Madawaska Minor Stringer CL-625-ONT Lane Oper

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	47.03	0.00	6.03	0.00
2	47.03	0.00	6.03	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015069
2	0.015069	0.000000

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		MC1	DC2	FWS	MC2	LL	PL
					Inst*	DC1 Deck Pour*						
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	8.794	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.4	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.4	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.9	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.9	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.1	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.0	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
1	15.633	TOP	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.0	0.0
			STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	44.07	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	18.0	41.08	N/A*	-3.84	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	33.6	38.11	N/A*	-7.19	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	46.9	35.17	N/A*	-10.04	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	57.9	32.30	N/A*	-12.40	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	67.3	29.77	N/A*	-14.42	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	74.7	27.27	N/A*	-16.00	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	80.1	24.79	N/A*	-17.15	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	83.4	22.34	N/A*	-17.86	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	84.7	19.91	N/A*	-18.14	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	84.0	17.50	N/A*	-17.99	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	84.0	17.50	N/A*	-17.99	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	84.7	-19.91	N/A*	-18.14	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	83.4	-22.34	N/A*	-17.86	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	80.1	-24.79	N/A*	-17.15	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	74.7	-27.27	N/A*	-16.00	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	67.3	-29.77	N/A*	-14.42	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	57.9	-32.30	N/A*	-12.40	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. Top Bm. Top S/R (ksi) (ksi) (ksi)	Compress. Limits* 0.6*f' _c 0.85*f' _c (ksi) (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59 -0.59 0.00	N/A** N/A**	
1	16.610	STR-I	POS.	46.9	-35.17	N/A* -10.04 0.00	N/A** N/A**	
		STR-IA	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A** N/A**	
		STR-II	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A** N/A**	
		STR-III	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A** N/A**	
		STR-IV	POS.	3.3	-0.92	N/A* -0.70 0.00	N/A** N/A**	
		STR-V	POS.	2.7	-0.77	N/A* -0.58 0.00	N/A** N/A**	
		SERV-I	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A** N/A**	
		SERV-II	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A** N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A** N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47 -0.47 0.00	N/A** N/A**	
1	17.588	STR-I	POS.	33.6	-38.11	N/A* -7.19 0.00	N/A** N/A**	
		STR-IA	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A** N/A**	
		STR-II	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A** N/A**	
		STR-III	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A** N/A**	
		STR-IV	POS.	2.3	-1.05	N/A* -0.49 0.00	N/A** N/A**	
		STR-V	POS.	1.9	-0.87	N/A* -0.41 0.00	N/A** N/A**	
		SERV-I	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A** N/A**	
		SERV-II	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A** N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A** N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33 -0.33 0.00	N/A** N/A**	
1	18.565	STR-I	POS.	18.0	-41.08	N/A* -3.84 0.00	N/A** N/A**	
		STR-IA	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A** N/A**	
		STR-II	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A** N/A**	
		STR-III	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A** N/A**	
		STR-IV	POS.	1.2	-1.18	N/A* -0.26 0.00	N/A** N/A**	
		STR-V	POS.	1.0	-0.98	N/A* -0.22 0.00	N/A** N/A**	
		SERV-I	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A** N/A**	
		SERV-II	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A** N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17 -0.17 0.00	N/A** N/A**	
1	19.542	STR-I	POS.	0.0	-44.07	N/A* 0.00 0.00	N/A** N/A**	
		STR-IA	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		STR-II	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		STR-III	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		STR-IV	POS.	0.0	-1.31	N/A* 0.00 0.00	N/A** N/A**	
		STR-V	POS.	0.0	-1.09	N/A* 0.00 0.00	N/A** N/A**	
		SERV-I	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-II	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00 0.00 0.00	N/A** N/A**	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	18.0	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	33.6	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	46.9	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	57.9	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	67.3	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	74.7	D	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	80.1	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
1	7.817	STR-I	POS.	167.8	83.4	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	8.794	STR-I	POS.	167.8	84.7	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
1	9.771L	STR-I	POS.	167.8	84.0	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	9.771R	STR-I	POS.	167.8	84.0	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
1	10.748	STR-I	POS.	167.8	84.7	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	83.4	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
1	12.702	STR-V	POS.	167.8	5.1	D	
		STR-I	POS.	167.8	80.1	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
1	13.679	STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
		STR-I	POS.	167.8	74.7	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
1	14.656	STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
		STR-I	POS.	167.8	67.3	D	
		STR-IA	POS.	167.8	4.0	D	
1	15.633	STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
		STR-I	POS.	167.8	57.9	D	
1	16.610	STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	46.9	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	33.6	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	18.0	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10 (in)	8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.226	18.66	1.226	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of $R_b R_h F_y c$ under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress $F+^{**}$ (ksi)	Effects Lateral Moment $M+^{**}$ (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-30.0 B	140.	-30.0 B	140.	168. E	168. E	168. E	168. E	N/A	85.	
			STR-IA	P	-30.0 B	140.	-30.0 B	140.	168. E	168. E	168. E	168. E	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	140.	168. E	168. E	168. E	168. E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***	
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Moment M+** (kip-ft)		
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	1.954	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	2.931	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	3.908	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	4.885	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	5.863	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3													Appendix A		Factored Effects		Code Chk ***
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Flexural	Effects			
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)			
1	11.725	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	12.702	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	13.679	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	14.656	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	15.633	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	16.610	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A		
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		
1	17.588	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	85.		
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A		

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Flexural Stress F+*** (ksi)	Lateral Moment M+*** (kip-ft)	
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	85.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

Madawaska Minor Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Factored Flexural Stress Fr (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	44.07	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	41.08	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	38.11	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	35.17	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	32.30	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	29.77	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	27.27	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	24.79	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	22.34	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	19.91	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	17.50	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	17.50	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-19.91	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-22.34	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-24.79	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-27.27	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-29.77	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-32.30	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-35.17	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-38.11	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-41.08	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-44.07	U	
		STR-IA	89.44	-1.09	U	

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

Madawaska Minor Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	2.046	115.0	1	0.000	STR-I
	Shear		2.056	115.5	1	0.000	STR-I
	Controlling		2.046	115.0	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	79.	2.046*	
1	1.954	STR-I	POS.	168.	5.	79.	2.046*	
1	2.931	STR-I	POS.	168.	5.	79.	2.046*	
1	3.908	STR-I	POS.	168.	5.	79.	2.046*	
1	4.885	STR-I	POS.	168.	5.	79.	2.046*	
1	5.863	STR-I	POS.	168.	5.	79.	2.046*	
1	6.840	STR-I	POS.	168.	5.	79.	2.046*	
1	7.817	STR-I	POS.	168.	5.	79.	2.046*	
1	8.794	STR-I	POS.	168.	5.	79.	2.046	
1	9.771L	STR-I	POS.	168.	5.	79.	2.046*	
1	9.771R	STR-I	POS.	168.	5.	79.	2.046*	
1	10.748	STR-I	POS.	168.	5.	79.	2.046	
1	11.725	STR-I	POS.	168.	5.	79.	2.046*	
1	12.702	STR-I	POS.	168.	5.	79.	2.046*	
1	13.679	STR-I	POS.	168.	5.	79.	2.046*	
1	14.656	STR-I	POS.	168.	5.	79.	2.046*	

Madawaska Minor Stringer CL-625-ONT Lane Oper
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	79.	2.046*	
1	16.610	STR-I	POS.	168.	5.	79.	2.046*	
1	17.588	STR-I	POS.	168.	5.	79.	2.046*	
1	18.565	STR-I	POS.	168.	5.	79.	2.046*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	42.97	2.056	
1	0.977	STR-I	POS.	89.44	0.98	40.09	2.206	
1	1.954	STR-I	POS.	89.44	0.87	37.24	2.378	
1	2.931	STR-I	POS.	89.44	0.77	34.41	2.577	
1	3.908	STR-I	POS.	89.44	0.66	31.65	2.805	
1	4.885	STR-I	POS.	89.44	0.55	29.23	3.041	
1	5.863	STR-I	POS.	89.44	0.44	26.83	3.317	
1	6.840	STR-I	POS.	89.44	0.33	24.46	3.642	
1	7.817	STR-I	POS.	89.44	0.22	22.12	4.033	
1	8.794	STR-I	POS.	89.44	0.11	19.80	4.512	
1	9.771L	STR-I	POS.	89.44	0.00	17.50	5.109	
1	9.771R	STR-I	POS.	89.44	0.00	17.50	5.109	
1	10.748	STR-I	NEG.	89.44	-0.11	-19.80	4.512	

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-22.12	4.033	
1	12.702	STR-I	NEG.	89.44	-0.33	-24.46	3.642	
1	13.679	STR-I	NEG.	89.44	-0.44	-26.83	3.317	
1	14.656	STR-I	NEG.	89.44	-0.55	-29.23	3.041	
1	15.633	STR-I	NEG.	89.44	-0.66	-31.65	2.805	
1	16.610	STR-I	NEG.	89.44	-0.77	-34.41	2.577	
1	17.588	STR-I	NEG.	89.44	-0.87	-37.24	2.378	
1	18.565	STR-I	NEG.	89.44	-0.98	-40.09	2.206	
1	19.542	STR-I	NEG.	89.44	-1.09	-42.97	2.056	

Madawaska Minor Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
 FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.
 The rotation value given is the larger of the positive
 rotation and absolute value of the negative rotation due
 to live load.

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
 FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.83	-0.003888
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.83	0.003888

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	53.05
2	SPECIAL #1	0.00	53.05

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer CL-625-ONT Lane Oper
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		47.03	
2	SPECIAL #1	0.00		47.03	

Note: Impact must be added for pier cap design

Madawaska Minor Stringer CL-625-ONT Lane Oper
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory	Flexure	T	2.046	115.0	1	0.000	STR-I
Operating	Not Applicable						

BRIDGE LOAD RATINGS W/O FWS

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

SPECIAL #1

INVENTORY	Dist. Fact.	0.258
RATING	Loc. (ft)	0.000
(IR)	Limit State	STR-I
	RF	2.05M

Span 1 Beam Type and Size: STEEL PLATE GIRDER 14. inches

SPECIAL #1

OPERATING	Dist. Fact.	---
RATING	Loc. (ft)	---
(OR)	Limit State	---
	RF	---

Maximum Factored Flexural Resistance (kip-ft) 167.83 Span Length(ft) = 19.54
 Location (ft) 2.93

Maximum Factored Shear Resistance (kips) 89.44
 Location (ft) 0.00

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS
 S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

Madawaska Minor Stringer CL-625-ONT Lane Oper
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

 Madawaska Minor Stringer CL-625-ONT Lane Oper

Table of Contents

Description	Page
-----	-----
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor CL-625-ONT Lane Oper.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	10
BEAM GEOMETRY.....	10
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	10
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	10
SKEW ANGLES.....	11
SPAN LENGTHS.....	11
MATERIAL PROPERTIES.....	11
PLATE GIRDER PROPERTIES, PART 1 of 2.....	11
PLATE GIRDER PROPERTIES, PART 2 of 2.....	11
SECTION LOSSES.....	11
SLAB PROPERTIES, PART 1 OF 2.....	12
SLAB PROPERTIES, PART 2 OF 2.....	12
LOAD FACTORS.....	12
DISTRIBUTED LOADS (DC1).....	12
SPECIAL LIVE LOADING.....	13
SPECIAL AXLE LOAD.....	13
BRACE POINTS.....	13
SYSTEM SETTINGS.....	13
SECTION PROPERTIES.....	14
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	14
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	15
ANALYSIS.....	16
LOAD FACTORS AND COMBINATIONS.....	16
LIVE LOADING SUMMARY.....	16
LOAD MODIFIER.....	16
RESISTANCE FACTORS.....	17
DEAD LOADS.....	17
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	17
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	17

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	18
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	18
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	18
BEAM WEIGHT ANALYSIS - REACTIONS.....	18
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	19
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	19
TOTAL DC1 ANALYSIS - REACTIONS.....	20
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	20
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	21
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	22
SPECIAL #1 - ANALYSIS.....	23
UNFACTORED FLEXURAL STRESSES.....	23
USER INPUT LATERAL STRESSES.....	32
FACTORED ANALYSIS RESULTS.....	32
FACTORED LATERAL STRESSES.....	38
SPECIAL #1 - SPECIFICATION CHECKING.....	39
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	39
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	43
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	47
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	50
FLANGE LATERAL CAPACITY.....	55
NET SECTION FRACTURE CHECK.....	55
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	55
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	59
SHEAR CAPACITY.....	61
SPECIAL #1 - RATINGS W/O FWS.....	66
RATING FACTORS - SUMMARY.....	66
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	66
RATING FACTORS - SHEAR CAPACITY.....	67
SUMMARY - OVERALL REACTIONS.....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	69
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	70
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	71
DL REACTIONS (UNFACTORED) PER GIRDER.....	71
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	71
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	72
DL REACTIONS (UNFACTORED) PER GIRDER.....	72
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	72
OVERALL RATING SUMMARY W/O FWS.....	73

RATING FACTORS - OVERALL SUMMARY W/O FWS.....	73
BRIDGE LOAD RATINGS W/O FWS.....	73
SUMMARY - SPECIFICATION CHECKS.....	74
SPECIFICATION CHECK WARNINGS.....	74
SPECIFICATION CHECK FAILURES.....	75

MINOR SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 1-4

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*****
*
* Program Title          LRFD Steel Girder Design and Rating
* Program Name          STLRFD
* Version               2.4.0.0
* Last Updated          09/08/2016
* Documentation          09/2016
* License No.           332672
*
*****
*
* Madawaska Minor Stringer MaineDOT Trucks 1-4
*
* MADE BY: SMZ           DATE: 09/22/17
*
* CHECKED BY: EMG        DATE: 09/29/17
*
* BACKCHECKED BY: SMZ    DATE: 09/29/17
*
*****
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Madawaska Minor Stringer MaineDOT Trucks 1-4
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer MaineDOT Trucks 1-4
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer MaineDOT Trucks 1-4
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,20,4,20,20,16.7,4,16.7,4,16.6,0
SLL 2,N,0,0
SAL 2,10,10,16.6,4,16.7,4,16.7,10,17,20.333,17,0
SLL 3,N,0,0
SAL 3,10,10,16.6,4,16.7,4,16.7,12,14,4,14,0
SLL 4,N,0,0
SAL 4,10,10,16.1,10,24.2,10,18.9,4,18.8,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: UDF	
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0
COMMAND: URF	
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: URF	
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0
COMMAND: SKW	
SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30	ksi
TOP FLANGE YLD. STRENGTH	30	ksi
BOT. FLANGE YLD. STRENGTH	30	ksi
CLAS.STRENGTH WELD METAL	70.	ksi (default)
WEB TENSILE STRENGTH	*	ksi (computed, if necessary)
TOP FLANGE TENSILE STR.	*	ksi (computed, if necessary)
BOT FLANGE TENSILE STR.	*	ksi (computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.45
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	20 kip
AXLE SPACING	4 ft
AXLE LOAD	20 kip
AXLE SPACING	20 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.7 kip
AXLE SPACING	4 ft
AXLE LOAD	16.6 kip
AXLE SPACING	0 ft

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

2
N
0 kip/ft
0

COMMAND: SAL
SPECIAL LL NUMBER
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING

2
10 kip
10 ft
16.6 kip
4 ft
16.7 kip
4 ft
16.7 kip
10 ft
17 kip
20.333 ft
17 kip
0 ft

COMMAND: SLL
SPECIAL LL NUMBER
AXLE EFFECT
LANE LOAD
PERCENT INCREASE

3
N
0 kip/ft
0

COMMAND: SAL
SPECIAL LL NUMBER
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING
AXLE LOAD
AXLE SPACING

3
10 kip
10 ft
16.6 kip
4 ft
16.7 kip
4 ft
16.7 kip
12 ft
14 kip
4 ft
14 kip
0 ft

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLL

SPECIAL LL NUMBER	4
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	4
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	16.1 kip
AXLE SPACING	10 ft
AXLE LOAD	24.2 kip
AXLE SPACING	10 ft
AXLE LOAD	18.9 kip
AXLE SPACING	4 ft
AXLE LOAD	18.8 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

Madawaska Minor Stringer MaineDOT Trucks 1-4
INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*	(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y	(default)
AASHTO/PENNDOT SPECS	P	(default)
PRINT DIMENSION FILE	N	(default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
be greater than the maximum of 36 ksi or 70 percent
of the specified yield strength of the higher
strength flange. (LRFD 6.10.1.3)
For Material ID No. 1:
Web yield of 30. ksi is less than 36. ksi

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

INPUT COMMANDS (cont.)

Input Check Completed
 - 6 warnings were issued.
 - Please verify that the input is correct.
 - The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor	Duct. Factor	Redun. Factor	Redundant Load Path	Analysis Points	P-82 Dynamic Load Allowance	Skew Angle Designation	Constant Lateral Bending Stress (ksi)	DC1S Percentage	
1.000	1.000	1.000	R	2	1.200	P	0.00	0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

	Moment		Shear	
Span No.	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

Madawaska Minor Stringer MaineDOT Trucks 1-4
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

SPAN LENGTHS

Span No.	1
Length (ft)	19.542

MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Flange Fu (ksi)	Plate Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	60.0	70.0

PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V E Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

Madawaska Minor Stringer MaineDOT Trucks 1-4INPUT (cont.)
-----SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	20.000	4.000	20.000	20.000	16.700	4.000
	16.700	4.000	16.600	0.000				
2	10.000	10.000	16.600	4.000	16.700	4.000	16.700	10.000
	17.000	20.333	17.000	0.000				
3	10.000	10.000	16.600	4.000	16.700	4.000	16.700	12.000
	14.000	4.000	14.000	0.000				
4	10.000	10.000	16.100	10.000	24.200	10.000	18.900	4.000
	18.800	0.000						

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer MaineDOT Trucks 1-4

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading SPEC #2	Rating Loading SPEC #3	Rating Loading SPEC #4
STR-I	SPECIAL #1	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor Ni	Ductility Factor Nd	Redundancy Factor Nr	Calculated Ni*Nd*Nr	Load Modifier Used	Fatigue Load Modifier Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.5	29.75	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	6.69	0.0	0.00
1	9.771R	61.0	6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00

Madawaska Minor Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	23.3	-27.76	0.0	0.00
1	18.565	12.5	-29.75	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	31.75	0.0	0.00	0.0	0.000
1	0.977	29.75	12.5	-0.80	6.4	0.041
1	1.954	27.76	23.3	-1.60	12.1	0.082
1	2.931	25.76	32.5	-2.39	17.1	0.121
1	3.908	23.77	39.9	-3.19	21.5	0.156
1	4.885	21.77	45.7	-4.71	29.7	0.187
1	5.863	19.78	49.9	-6.31	37.1	0.214
1	6.840	17.78	52.3	-7.91	43.2	0.235
1	7.817	15.89	53.4	-9.50	47.9	0.250
1	8.794	14.29	54.0	-11.10	51.3	0.261
1	9.771L	12.69	53.3	-12.69	53.3	0.264
1	9.771R	12.69	53.3	-12.69	53.3	0.264
1	10.748	11.10	51.3	-14.29	54.0	0.261
1	11.725	9.50	47.9	-15.89	53.4	0.250
1	12.702	7.91	43.2	-17.78	52.3	0.235
1	13.679	6.31	37.1	-19.78	49.9	0.214
1	14.656	4.71	29.7	-21.77	45.7	0.187
1	15.633	3.19	21.5	-23.77	39.9	0.156
1	16.610	2.39	17.1	-25.76	32.5	0.121
1	17.588	1.60	12.1	-27.76	23.3	0.082
1	18.565	0.80	6.4	-29.75	12.5	0.041
1	19.542	0.00	0.0	-31.75	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	31.75	0.00	0.000000	-0.004085
2	31.75	0.00	0.004085	0.000000

Madawaska Minor Stringer MaineDOT Trucks 1-4ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	39.79	0.00	0.00	0.00
2	39.79	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.7	30.11	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	12.67	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.565	12.7	-30.11	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

Madawaska Minor Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.79	0.0	0.00	0.0	0.000
1	0.977	30.11	12.7	-0.68	5.4	0.041
1	1.954	27.76	23.3	-1.36	10.3	0.082
1	2.931	25.76	32.5	-2.03	14.5	0.121
1	3.908	23.77	39.9	-2.71	18.2	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.71	18.2	-23.77	39.9	0.156
1	16.610	2.03	14.5	-25.76	32.5	0.121
1	17.588	1.36	10.3	-27.76	23.3	0.082
1	18.565	0.68	5.4	-30.11	12.7	0.041
1	19.542	0.00	0.0	-32.79	0.0	0.000

SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.79	0.00	0.000000	-0.004085
2	32.79	0.00	0.004085	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	41.09	0.00	0.00	0.00
2	41.09	0.00	0.00	0.00

Madawaska Minor Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	29.98	0.0	0.00
1	1.954	23.3	27.76	0.0	0.00
1	2.931	32.5	25.76	0.0	0.00
1	3.908	39.9	23.77	0.0	0.00
1	4.885	45.7	21.77	0.0	0.00
1	5.863	49.9	19.78	0.0	0.00
1	6.840	53.4	-0.65	0.0	0.00
1	7.817	57.6	10.68	0.0	0.00
1	8.794	60.1	8.68	0.0	0.00
1	9.771L	61.0	-6.69	0.0	0.00
1	9.771R	61.0	-6.69	0.0	0.00
1	10.748	60.1	-8.68	0.0	0.00
1	11.725	57.6	-10.68	0.0	0.00
1	12.702	53.4	-12.67	0.0	0.00
1	13.679	49.9	-19.78	0.0	0.00
1	14.656	45.7	-21.77	0.0	0.00
1	15.633	39.9	-23.77	0.0	0.00
1	16.610	32.5	-25.76	0.0	0.00
1	17.588	23.3	-27.76	0.0	0.00
1	18.565	12.6	-29.98	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.38	0.0	0.00	0.0	0.000
1	0.977	29.98	12.6	-0.67	5.3	0.041
1	1.954	27.76	23.3	-1.33	10.1	0.082
1	2.931	25.76	32.5	-2.00	14.3	0.121
1	3.908	23.77	39.9	-2.67	17.9	0.156
1	4.885	21.77	45.7	-3.94	24.8	0.187
1	5.863	19.78	49.9	-5.27	31.0	0.214
1	6.840	17.78	52.3	-6.60	36.1	0.235

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	7.817	15.79	53.1	-7.93	40.0	0.250
1	8.794	13.79	52.2	-9.80	45.3	0.261
1	9.771L	11.80	49.6	-11.80	49.6	0.264
1	9.771R	11.80	49.6	-11.80	49.6	0.264
1	10.748	9.80	45.3	-13.79	52.2	0.261
1	11.725	7.93	40.0	-15.79	53.1	0.250
1	12.702	6.60	36.1	-17.78	52.3	0.235
1	13.679	5.27	31.0	-19.78	49.9	0.214
1	14.656	3.94	24.8	-21.77	45.7	0.187
1	15.633	2.67	17.9	-23.77	39.9	0.156
1	16.610	2.00	14.3	-25.76	32.5	0.121
1	17.588	1.33	10.1	-27.76	23.3	0.082
1	18.565	0.67	5.3	-29.98	12.6	0.041
1	19.542	0.00	0.0	-32.38	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.38	0.00	0.000000	-0.004085
2	32.38	0.00	0.004085	0.000000

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	40.57	0.00	0.00	0.00
2	40.57	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011905
2	0.011905	0.000000

Madawaska Minor Stringer MaineDOT Trucks 1-4

ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	12.6	30.00	0.0	0.00
1	1.954	23.1	27.53	0.0	0.00
1	2.931	31.6	25.06	0.0	0.00
1	3.908	38.0	22.59	0.0	0.00
1	4.885	42.3	5.12	0.0	0.00
1	5.863	45.3	17.99	0.0	0.00
1	6.840	48.6	10.29	0.0	0.00
1	7.817	50.9	7.82	0.0	0.00
1	8.794	51.2	-9.73	0.0	0.00
1	9.771L	50.3	-11.97	0.0	0.00
1	9.771R	50.3	-11.97	0.0	0.00
1	10.748	51.2	9.73	0.0	0.00
1	11.725	50.9	-7.82	0.0	0.00
1	12.702	48.6	-10.29	0.0	0.00
1	13.679	45.3	-17.99	0.0	0.00
1	14.656	42.3	-20.12	0.0	0.00
1	15.633	38.0	-22.59	0.0	0.00
1	16.610	31.6	-25.06	0.0	0.00
1	17.588	23.1	-27.53	0.0	0.00
1	18.565	12.6	-30.00	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	32.47	0.0	0.00	0.0	0.000
1	0.977	30.00	12.6	-0.97	7.7	0.036
1	1.954	27.53	23.1	-1.93	14.6	0.069
1	2.931	25.06	31.6	-2.90	20.7	0.102
1	3.908	22.59	38.0	-3.86	26.0	0.131
1	4.885	20.12	42.3	-4.83	30.4	0.157
1	5.863	17.99	45.3	-5.95	35.0	0.178
1	6.840	16.48	48.5	-7.46	40.7	0.194
1	7.817	14.98	50.4	-8.96	45.2	0.205
1	8.794	13.48	51.0	-10.47	48.4	0.207
1	9.771L	11.97	50.3	-11.97	50.3	0.208
1	9.771R	11.97	50.3	-11.97	50.3	0.208
1	10.748	10.47	48.4	-13.48	51.0	0.207
1	11.725	8.96	45.2	-14.98	50.4	0.205
1	12.702	7.46	40.7	-16.48	48.5	0.194
1	13.679	5.95	35.0	-17.99	45.3	0.178

Madawaska Minor Stringer MaineDOT Trucks 1-4
ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	14.656	4.83	30.4	-20.12	42.3	0.157
1	15.633	3.86	26.0	-22.59	38.0	0.131
1	16.610	2.90	20.7	-25.06	31.6	0.102
1	17.588	1.93	14.6	-27.53	23.1	0.069
1	18.565	0.97	7.7	-30.00	12.6	0.036
1	19.542	0.00	0.0	-32.47	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	32.47	0.00	0.000000	-0.003600
2	32.47	0.00	0.003600	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	40.69	0.00	0.00	0.00
2	40.69	0.00	0.00	0.00

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.010491
2	0.010491	0.000000

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	8.794	TOP	SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	9.771R	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	15.633	TOP	SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
			STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	47.13	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.1	44.13	N/A*	-4.10	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-7.65	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-10.67	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-13.13	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-15.06	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-16.44	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-17.63	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.25	N/A*	-18.99	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.83	N/A*	-19.80	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	18.41	N/A*	-20.07	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	18.41	N/A*	-20.07	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.83	N/A*	-19.80	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.25	N/A*	-18.99	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-17.63	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-16.44	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-15.06	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-13.13	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-10.67	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-7.65	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.1	-44.13	N/A*	-4.10	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-47.13	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4

SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	19.1	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	35.7	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	49.8	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	61.3	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	70.3	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	76.8	D	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	82.4	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
1	7.817	STR-I	POS.	167.8	88.7	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
		STR-V	POS.	167.8	5.1	D	
1	8.794	STR-I	POS.	167.8	92.5	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	9.771L	STR-I	POS.	167.8	93.7	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
		STR-V	POS.	167.8	5.3	D	
1	9.771R	STR-I	POS.	167.8	93.7	D	
		STR-IA	POS.	167.8	5.3	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
		STR-V	POS.	167.8	5.3	D	
1	10.748	STR-I	POS.	167.8	92.5	D	
		STR-IA	POS.	167.8	5.3	D	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	88.7	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
		STR-V	POS.	167.8	5.1	D	
1	12.702	STR-I	POS.	167.8	82.4	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
1	13.679	STR-I	POS.	167.8	76.8	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	14.656	STR-I	POS.	167.8	70.3	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	15.633	STR-I	POS.	167.8	61.3	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	49.8	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	35.7	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	19.1	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10	8.2.3	Lr*	Appendix A Cb*	Myc*	Rpc*
					(in)			(in)	(ft)	(ft)		(ft)		(kip-ft)	
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of $R_b R_h F_y c$ under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance			Appendix A Flexural Resistance			Factored Flexural Stress $F+^{**}$ (ksi)	Effects Lateral Moment $M+^{**}$ (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-30.0 B	140.	-30.0 B	168. E	168. E	168. E	N/A	94.	
			STR-IA	P	-30.0 B	140.	-30.0 B	168. E	168. E	168. E	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	168. E	168. E	168. E	-1.1	N/A	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+**	Effects +Lateral Moment M+**	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	1.954	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	2.931	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	3.908	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	4.885	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	5.863	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* Fr (ksi)			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* Mr(e)** (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Local Fr (ksi)	* Mr (kip-ft)	Governing Fr (ksi)	* Mr (kip-ft)	Stress F+** (ksi)	Lateral Moment M+** (kip-ft)	
1	11.725	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	12.702	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	13.679	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	14.656	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	15.633	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	16.610	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A
1	17.588	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Flexural Stress F+*** (ksi)	Lateral Moment M+*** (kip-ft)	
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress fc* (ksi)	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)		
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	47.13	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	44.13	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	41.13	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	38.12	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	35.12	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	32.12	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	29.12	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	26.12	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	23.25	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

			SHEAR CAPACITY (cont.)			
Span No.	Dist. (ft)	Limit State	Factored	Maximum	Stiffened/ Unstiffened	Code Check*
			Shear Resistance Vr (kips)	Shear Vu (kips)		
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	20.83	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	18.41	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	18.41	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-20.83	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-23.25	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-26.12	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-29.12	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-32.12	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-35.12	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-38.12	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-41.13	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-44.13	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-47.13	U	
		STR-IA	89.44	-1.09	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.838	91.9	1	0.000	STR-I
	Shear		1.919	95.9	1	0.000	STR-I
	Controlling		1.838	91.9	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	88.	1.838*	
1	1.954	STR-I	POS.	168.	5.	88.	1.838*	
1	2.931	STR-I	POS.	168.	5.	88.	1.838*	
1	3.908	STR-I	POS.	168.	5.	88.	1.838*	
1	4.885	STR-I	POS.	168.	5.	88.	1.838*	
1	5.863	STR-I	POS.	168.	5.	88.	1.838*	
1	6.840	STR-I	POS.	168.	5.	88.	1.838*	
1	7.817	STR-I	POS.	168.	5.	88.	1.838*	
1	8.794	STR-I	POS.	168.	5.	88.	1.838*	
1	9.771L	STR-I	POS.	168.	5.	88.	1.838	
1	9.771R	STR-I	POS.	168.	5.	88.	1.838	
1	10.748	STR-I	POS.	168.	5.	88.	1.838*	
1	11.725	STR-I	POS.	168.	5.	88.	1.838*	
1	12.702	STR-I	POS.	168.	5.	88.	1.838*	
1	13.679	STR-I	POS.	168.	5.	88.	1.838*	
1	14.656	STR-I	POS.	168.	5.	88.	1.838*	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	88.	1.838*	
1	16.610	STR-I	POS.	168.	5.	88.	1.838*	
1	17.588	STR-I	POS.	168.	5.	88.	1.838*	
1	18.565	STR-I	POS.	168.	5.	88.	1.838*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	46.04	1.919	
1	0.977	STR-I	POS.	89.44	0.98	43.14	2.050	
1	1.954	STR-I	POS.	89.44	0.87	40.25	2.200	
1	2.931	STR-I	POS.	89.44	0.77	37.36	2.374	
1	3.908	STR-I	POS.	89.44	0.66	34.47	2.576	
1	4.885	STR-I	POS.	89.44	0.55	31.57	2.815	
1	5.863	STR-I	POS.	89.44	0.44	28.68	3.103	
1	6.840	STR-I	POS.	89.44	0.33	25.79	3.456	
1	7.817	STR-I	POS.	89.44	0.22	23.03	3.873	
1	8.794	STR-I	POS.	89.44	0.11	20.72	4.311	
1	9.771L	STR-I	POS.	89.44	0.00	18.41	4.859	
1	9.771R	STR-I	POS.	89.44	0.00	18.41	4.859	
1	10.748	STR-I	NEG.	89.44	-0.11	-20.72	4.311	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-23.03	3.873	
1	12.702	STR-I	NEG.	89.44	-0.33	-25.79	3.456	
1	13.679	STR-I	NEG.	89.44	-0.44	-28.68	3.103	
1	14.656	STR-I	NEG.	89.44	-0.55	-31.57	2.815	
1	15.633	STR-I	NEG.	89.44	-0.66	-34.47	2.576	
1	16.610	STR-I	NEG.	89.44	-0.77	-37.36	2.374	
1	17.588	STR-I	NEG.	89.44	-0.87	-40.25	2.200	
1	18.565	STR-I	NEG.	89.44	-0.98	-43.14	2.050	
1	19.542	STR-I	NEG.	89.44	-1.09	-46.04	1.919	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.63	N/A*	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.4	44.65	N/A*	-4.15	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-7.65	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-10.67	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-13.13	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-15.06	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-16.44	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-17.63	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	N/A*	-18.99	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	N/A*	-19.80	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	N/A*	-20.07	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	17.11	N/A*	-20.07	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	N/A*	-19.80	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	N/A*	-18.99	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-17.63	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-16.44	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-15.06	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-13.13	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-10.67	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-7.65	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.4	-44.65	N/A*	-4.15	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.63	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	19.4	D	
1	1.954	STR-I	POS.	167.8	35.7	D	
1	2.931	STR-I	POS.	167.8	49.8	D	
1	3.908	STR-I	POS.	167.8	61.3	D	
1	4.885	STR-I	POS.	167.8	70.3	D	
1	5.863	STR-I	POS.	167.8	76.8	D	
1	6.840	STR-I	POS.	167.8	82.4	D	
1	7.817	STR-I	POS.	167.8	88.7	D	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

 MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	8.794	STR-I	POS.	167.8	92.5	D	
1	9.771L	STR-I	POS.	167.8	93.7	D	
1	9.771R	STR-I	POS.	167.8	93.7	D	
1	10.748	STR-I	POS.	167.8	92.5	D	
1	11.725	STR-I	POS.	167.8	88.7	D	
1	12.702	STR-I	POS.	167.8	82.4	D	
1	13.679	STR-I	POS.	167.8	76.8	D	
1	14.656	STR-I	POS.	167.8	70.3	D	
1	15.633	STR-I	POS.	167.8	61.3	D	
1	16.610	STR-I	POS.	167.8	49.8	D	
1	17.588	STR-I	POS.	167.8	35.7	D	
1	18.565	STR-I	POS.	167.8	19.4	D	
1	19.542	STR-I	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3													Appendix A		Factored Effects	Code
Span		Limit		Flexural Resistance					Flexural Resistance					Flexural+Lateral	Chk	
No.	Dist.	T/B	State	Flx	Local	*	Governing	*	Local	*	Governing	*	Stress	Moment	***	
	(ft)				(ksi)		Mr(e)**		(ksi)		Mr		(ksi)	(kip-ft)		
1	0.000	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.	
1	0.977	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.	
1	1.954	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	2.931	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	3.908	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	4.885	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	5.863	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	6.840	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	7.817	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	8.794	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	9.771L	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	9.771R	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	10.748	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	11.725	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	12.702	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	13.679	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	14.656	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	15.633	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	16.610	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	17.588	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	18.565	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	19.542	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
 from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
 A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
 If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
 input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	89.44	48.63	U	
1	0.977	STR-I	89.44	44.65	U	
1	1.954	STR-I	89.44	41.13	U	
1	2.931	STR-I	89.44	38.12	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-I	89.44	35.12	U	
1	4.885	STR-I	89.44	32.12	U	
1	5.863	STR-I	89.44	29.12	U	
1	6.840	STR-I	89.44	26.12	U	
1	7.817	STR-I	89.44	23.11	U	
1	8.794	STR-I	89.44	20.11	U	
1	9.771L	STR-I	89.44	17.11	U	
1	9.771R	STR-I	89.44	17.11	U	
1	10.748	STR-I	89.44	-20.11	U	
1	11.725	STR-I	89.44	-23.11	U	
1	12.702	STR-I	89.44	-26.12	U	
1	13.679	STR-I	89.44	-29.12	U	
1	14.656	STR-I	89.44	-32.12	U	
1	15.633	STR-I	89.44	-35.12	U	
1	16.610	STR-I	89.44	-38.12	U	
1	17.588	STR-I	89.44	-41.13	U	
1	18.565	STR-I	89.44	-44.65	U	
1	19.542	STR-I	89.44	-48.63	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.838	86.4	1	0.000	STR-I
	Shear		1.858	87.3	1	0.000	STR-I
	Controlling		1.838	86.4	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	88.	1.838*	
1	1.954	STR-I	POS.	168.	5.	88.	1.838*	
1	2.931	STR-I	POS.	168.	5.	88.	1.838*	
1	3.908	STR-I	POS.	168.	5.	88.	1.838*	
1	4.885	STR-I	POS.	168.	5.	88.	1.838*	
1	5.863	STR-I	POS.	168.	5.	88.	1.838*	
1	6.840	STR-I	POS.	168.	5.	88.	1.838*	
1	7.817	STR-I	POS.	168.	5.	88.	1.838*	
1	8.794	STR-I	POS.	168.	5.	88.	1.838*	
1	9.771L	STR-I	POS.	168.	5.	88.	1.838	
1	9.771R	STR-I	POS.	168.	5.	88.	1.838	
1	10.748	STR-I	POS.	168.	5.	88.	1.838*	
1	11.725	STR-I	POS.	168.	5.	88.	1.838*	
1	12.702	STR-I	POS.	168.	5.	88.	1.838*	
1	13.679	STR-I	POS.	168.	5.	88.	1.838*	
1	14.656	STR-I	POS.	168.	5.	88.	1.838*	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	88.	1.838*	
1	16.610	STR-I	POS.	168.	5.	88.	1.838*	
1	17.588	STR-I	POS.	168.	5.	88.	1.838*	
1	18.565	STR-I	POS.	168.	5.	88.	1.838*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	47.54	1.858	
1	0.977	STR-I	POS.	89.44	0.98	43.66	2.026	
1	1.954	STR-I	POS.	89.44	0.87	40.25	2.200	
1	2.931	STR-I	POS.	89.44	0.77	37.36	2.374	
1	3.908	STR-I	POS.	89.44	0.66	34.47	2.576	
1	4.885	STR-I	POS.	89.44	0.55	31.57	2.815	
1	5.863	STR-I	POS.	89.44	0.44	28.68	3.103	
1	6.840	STR-I	POS.	89.44	0.33	25.79	3.456	
1	7.817	STR-I	POS.	89.44	0.22	22.89	3.897	
1	8.794	STR-I	POS.	89.44	0.11	20.00	4.466	
1	9.771L	STR-I	POS.	89.44	0.00	17.11	5.227	
1	9.771R	STR-I	POS.	89.44	0.00	17.11	5.227	
1	10.748	STR-I	NEG.	89.44	-0.11	-20.00	4.466	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #2 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-22.89	3.897	
1	12.702	STR-I	NEG.	89.44	-0.33	-25.79	3.456	
1	13.679	STR-I	NEG.	89.44	-0.44	-28.68	3.103	
1	14.656	STR-I	NEG.	89.44	-0.55	-31.57	2.815	
1	15.633	STR-I	NEG.	89.44	-0.66	-34.47	2.576	
1	16.610	STR-I	NEG.	89.44	-0.77	-37.36	2.374	
1	17.588	STR-I	NEG.	89.44	-0.87	-40.25	2.200	
1	18.565	STR-I	NEG.	89.44	-0.98	-43.66	2.026	
1	19.542	STR-I	NEG.	89.44	-1.09	-47.54	1.858	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.9	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.3	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.4	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.7	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.8	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.8	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.6	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.6	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.0	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.0	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.04	N/A*	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.46	N/A*	-4.13	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.7	41.13	N/A*	-7.65	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	49.8	38.12	N/A*	-10.67	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	61.3	35.12	N/A*	-13.13	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	70.3	32.12	N/A*	-15.06	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	76.8	29.12	N/A*	-16.44	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	82.4	26.12	N/A*	-17.63	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	88.7	23.11	N/A*	-18.99	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	92.5	20.11	N/A*	-19.80	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	93.7	17.11	N/A*	-20.07	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	93.7	17.11	N/A*	-20.07	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	92.5	-20.11	N/A*	-19.80	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	88.7	-23.11	N/A*	-18.99	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	82.4	-26.12	N/A*	-17.63	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	76.8	-29.12	N/A*	-16.44	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	70.3	-32.12	N/A*	-15.06	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	61.3	-35.12	N/A*	-13.13	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	49.8	-38.12	N/A*	-10.67	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.7	-41.13	N/A*	-7.65	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.46	N/A*	-4.13	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.04	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	19.3	D	
1	1.954	STR-I	POS.	167.8	35.7	D	
1	2.931	STR-I	POS.	167.8	49.8	D	
1	3.908	STR-I	POS.	167.8	61.3	D	
1	4.885	STR-I	POS.	167.8	70.3	D	
1	5.863	STR-I	POS.	167.8	76.8	D	
1	6.840	STR-I	POS.	167.8	82.4	D	
1	7.817	STR-I	POS.	167.8	88.7	D	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	8.794	STR-I	POS.	167.8	92.5	D	
1	9.771L	STR-I	POS.	167.8	93.7	D	
1	9.771R	STR-I	POS.	167.8	93.7	D	
1	10.748	STR-I	POS.	167.8	92.5	D	
1	11.725	STR-I	POS.	167.8	88.7	D	
1	12.702	STR-I	POS.	167.8	82.4	D	
1	13.679	STR-I	POS.	167.8	76.8	D	
1	14.656	STR-I	POS.	167.8	70.3	D	
1	15.633	STR-I	POS.	167.8	61.3	D	
1	16.610	STR-I	POS.	167.8	49.8	D	
1	17.588	STR-I	POS.	167.8	35.7	D	
1	18.565	STR-I	POS.	167.8	19.3	D	
1	19.542	STR-I	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*		Lr* (ft)	Appendix A Cb* Myc*		Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3													Appendix A		Factored Effects		Code
Span		Limit		Flexural Resistance					Flexural Resistance					Flexural+Lateral		Chk	
No.	Dist.	T/B	State	Flx	Local	*	Governing	*	Local	*	Governing	*	Stress	Moment	***		
	(ft)				(ksi)		Mr(e)**		(ksi)		Mr		(ksi)	(kip-ft)			
1	0.000	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.		
1	0.977	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.		
1	1.954	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	N/A	94.		

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	2.931	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	3.908	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	4.885	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	5.863	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	6.840	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	7.817	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	8.794	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	9.771L	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	9.771R	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	10.748	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	11.725	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	12.702	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	13.679	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	14.656	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	15.633	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	16.610	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	17.588	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	18.565	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	
1	19.542	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	94.	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	89.44	48.04	U	
1	0.977	STR-I	89.44	44.46	U	
1	1.954	STR-I	89.44	41.13	U	
1	2.931	STR-I	89.44	38.12	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-I	89.44	35.12	U	
1	4.885	STR-I	89.44	32.12	U	
1	5.863	STR-I	89.44	29.12	U	
1	6.840	STR-I	89.44	26.12	U	
1	7.817	STR-I	89.44	23.11	U	
1	8.794	STR-I	89.44	20.11	U	
1	9.771L	STR-I	89.44	17.11	U	
1	9.771R	STR-I	89.44	17.11	U	
1	10.748	STR-I	89.44	-20.11	U	
1	11.725	STR-I	89.44	-23.11	U	
1	12.702	STR-I	89.44	-26.12	U	
1	13.679	STR-I	89.44	-29.12	U	
1	14.656	STR-I	89.44	-32.12	U	
1	15.633	STR-I	89.44	-35.12	U	
1	16.610	STR-I	89.44	-38.12	U	
1	17.588	STR-I	89.44	-41.13	U	
1	18.565	STR-I	89.44	-44.46	U	
1	19.542	STR-I	89.44	-48.04	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.838	80.9	1	0.000	STR-I
	Shear		1.882	82.8	1	0.000	STR-I
	Controlling		1.838	80.9	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	88.	1.838*	
1	1.954	STR-I	POS.	168.	5.	88.	1.838*	
1	2.931	STR-I	POS.	168.	5.	88.	1.838*	
1	3.908	STR-I	POS.	168.	5.	88.	1.838*	
1	4.885	STR-I	POS.	168.	5.	88.	1.838*	
1	5.863	STR-I	POS.	168.	5.	88.	1.838*	
1	6.840	STR-I	POS.	168.	5.	88.	1.838*	
1	7.817	STR-I	POS.	168.	5.	88.	1.838*	
1	8.794	STR-I	POS.	168.	5.	88.	1.838*	
1	9.771L	STR-I	POS.	168.	5.	88.	1.838	
1	9.771R	STR-I	POS.	168.	5.	88.	1.838	
1	10.748	STR-I	POS.	168.	5.	88.	1.838*	
1	11.725	STR-I	POS.	168.	5.	88.	1.838*	
1	12.702	STR-I	POS.	168.	5.	88.	1.838*	
1	13.679	STR-I	POS.	168.	5.	88.	1.838*	
1	14.656	STR-I	POS.	168.	5.	88.	1.838*	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	88.	1.838*	
1	16.610	STR-I	POS.	168.	5.	88.	1.838*	
1	17.588	STR-I	POS.	168.	5.	88.	1.838*	
1	18.565	STR-I	POS.	168.	5.	88.	1.838*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	46.95	1.882	
1	0.977	STR-I	POS.	89.44	0.98	43.48	2.034	
1	1.954	STR-I	POS.	89.44	0.87	40.25	2.200	
1	2.931	STR-I	POS.	89.44	0.77	37.36	2.374	
1	3.908	STR-I	POS.	89.44	0.66	34.47	2.576	
1	4.885	STR-I	POS.	89.44	0.55	31.57	2.815	
1	5.863	STR-I	POS.	89.44	0.44	28.68	3.103	
1	6.840	STR-I	POS.	89.44	0.33	25.79	3.456	
1	7.817	STR-I	POS.	89.44	0.22	22.89	3.897	
1	8.794	STR-I	POS.	89.44	0.11	20.00	4.466	
1	9.771L	STR-I	POS.	89.44	0.00	17.11	5.227	
1	9.771R	STR-I	POS.	89.44	0.00	17.11	5.227	
1	10.748	STR-I	NEG.	89.44	-0.11	-20.00	4.466	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-22.89	3.897	
1	12.702	STR-I	NEG.	89.44	-0.33	-25.79	3.456	
1	13.679	STR-I	NEG.	89.44	-0.44	-28.68	3.103	
1	14.656	STR-I	NEG.	89.44	-0.55	-31.57	2.815	
1	15.633	STR-I	NEG.	89.44	-0.66	-34.47	2.576	
1	16.610	STR-I	NEG.	89.44	-0.77	-37.36	2.374	
1	17.588	STR-I	NEG.	89.44	-0.87	-40.25	2.200	
1	18.565	STR-I	NEG.	89.44	-0.98	-43.48	2.034	
1	19.542	STR-I	NEG.	89.44	-1.09	-46.95	1.882	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-6.8	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-9.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.7	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.4	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.0	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.8	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.8	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-11.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	11.0	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-10.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	10.4	0.0

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-9.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	9.7	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-8.1	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	8.1	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-6.8	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	6.8	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.0	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.0	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.7	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.7	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	48.18	N/A*	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	19.3	44.49	N/A*	-4.13	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	35.5	40.80	N/A*	-7.59	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	48.5	37.11	N/A*	-10.39	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	58.5	33.42	N/A*	-12.52	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	65.3	29.73	N/A*	-13.98	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	70.2	26.52	N/A*	-15.04	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	75.3	24.23	N/A*	-16.13	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	79.0	21.94	N/A*	-16.91	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	79.5	19.65	N/A*	-17.02	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	78.3	17.36	N/A*	-16.76	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	78.3	17.36	N/A*	-16.76	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	79.5	-19.65	N/A*	-17.02	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	79.0	-21.94	N/A*	-16.91	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	75.3	-24.23	N/A*	-16.13	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	70.2	-26.52	N/A*	-15.04	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	65.3	-29.73	N/A*	-13.98	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	58.5	-33.42	N/A*	-12.52	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	48.5	-37.11	N/A*	-10.39	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	35.5	-40.80	N/A*	-7.59	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	19.3	-44.49	N/A*	-4.13	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-48.18	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	19.3	D	
1	1.954	STR-I	POS.	167.8	35.5	D	
1	2.931	STR-I	POS.	167.8	48.5	D	
1	3.908	STR-I	POS.	167.8	58.5	D	
1	4.885	STR-I	POS.	167.8	65.3	D	
1	5.863	STR-I	POS.	167.8	70.2	D	
1	6.840	STR-I	POS.	167.8	75.3	D	
1	7.817	STR-I	POS.	167.8	79.0	D	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

 MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	8.794	STR-I	POS.	167.8	79.5	D	
1	9.771L	STR-I	POS.	167.8	78.3	D	
1	9.771R	STR-I	POS.	167.8	78.3	D	
1	10.748	STR-I	POS.	167.8	79.5	D	
1	11.725	STR-I	POS.	167.8	79.0	D	
1	12.702	STR-I	POS.	167.8	75.3	D	
1	13.679	STR-I	POS.	167.8	70.2	D	
1	14.656	STR-I	POS.	167.8	65.3	D	
1	15.633	STR-I	POS.	167.8	58.5	D	
1	16.610	STR-I	POS.	167.8	48.5	D	
1	17.588	STR-I	POS.	167.8	35.5	D	
1	18.565	STR-I	POS.	167.8	19.3	D	
1	19.542	STR-I	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3		Lr* (ft)	Cb*	Appendix A		Myc* (kip-ft)	Rpc*
										Lr*	Cb*						
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182			140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.182	18.66	1.182	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Local Fr (ksi)	6.10.8.2.3 Governing Mr(e)** (kip-ft)	6.10.8.2.3 Fr (ksi)	Appendix A Flexural Resistance Local Mr (kip-ft)	Appendix A Governing Mr (kip-ft)	Factored Flexural Stress F+** (ksi)	Effects Lateral Moment M+** (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-28.9 B	135.	-28.9 B	165. E	165. E	N/A	79.	
1	0.977	TOP	STR-I	P	-28.9 B	135.	-28.9 B	165. E	165. E	N/A	79.	
1	1.954	TOP	STR-I	P	-28.9 B	135.	-28.9 B	165. E	165. E	N/A	79.	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	2.931	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	3.908	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	4.885	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	5.863	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	6.840	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	7.817	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	8.794	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	9.771L	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	9.771R	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	10.748	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	11.725	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	12.702	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	13.679	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	14.656	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	15.633	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	16.610	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	17.588	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	18.565	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	
1	19.542	TOP	STR-I	P	-28.9	B	135.	-28.9	165.	E	165.	E	N/A	79.	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	89.44	48.18	U	
1	0.977	STR-I	89.44	44.49	U	
1	1.954	STR-I	89.44	40.80	U	
1	2.931	STR-I	89.44	37.11	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-I	89.44	33.42	U	
1	4.885	STR-I	89.44	29.73	U	
1	5.863	STR-I	89.44	26.52	U	
1	6.840	STR-I	89.44	24.23	U	
1	7.817	STR-I	89.44	21.94	U	
1	8.794	STR-I	89.44	19.65	U	
1	9.771L	STR-I	89.44	17.36	U	
1	9.771R	STR-I	89.44	17.36	U	
1	10.748	STR-I	89.44	-19.65	U	
1	11.725	STR-I	89.44	-21.94	U	
1	12.702	STR-I	89.44	-24.23	U	
1	13.679	STR-I	89.44	-26.52	U	
1	14.656	STR-I	89.44	-29.73	U	
1	15.633	STR-I	89.44	-33.42	U	
1	16.610	STR-I	89.44	-37.11	U	
1	17.588	STR-I	89.44	-40.80	U	
1	18.565	STR-I	89.44	-44.49	U	
1	19.542	STR-I	89.44	-48.18	U	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	2.148	94.5	1	0.000	STR-I
	Shear		1.876	82.6	1	0.000	STR-I
	Controlling		1.876	82.6	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	165.	5.	74.	2.148*	
1	1.954	STR-I	POS.	165.	5.	74.	2.148*	
1	2.931	STR-I	POS.	165.	5.	74.	2.148*	
1	3.908	STR-I	POS.	165.	5.	74.	2.148*	
1	4.885	STR-I	POS.	165.	5.	74.	2.148*	
1	5.863	STR-I	POS.	165.	5.	74.	2.148*	
1	6.840	STR-I	POS.	165.	5.	74.	2.148*	
1	7.817	STR-I	POS.	165.	5.	74.	2.148*	
1	8.794	STR-I	POS.	165.	5.	74.	2.148*	
1	9.771L	STR-I	POS.	165.	5.	74.	2.148*	
1	9.771R	STR-I	POS.	165.	5.	74.	2.148*	
1	10.748	STR-I	POS.	165.	5.	74.	2.148*	
1	11.725	STR-I	POS.	165.	5.	74.	2.148*	
1	12.702	STR-I	POS.	165.	5.	74.	2.148*	
1	13.679	STR-I	POS.	165.	5.	74.	2.148*	
1	14.656	STR-I	POS.	165.	5.	74.	2.148*	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	165.	5.	74.	2.148*	
1	16.610	STR-I	POS.	165.	5.	74.	2.148*	
1	17.588	STR-I	POS.	165.	5.	74.	2.148*	
1	18.565	STR-I	POS.	165.	5.	74.	2.148*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	47.09	1.876	
1	0.977	STR-I	POS.	89.44	0.98	43.51	2.033	
1	1.954	STR-I	POS.	89.44	0.87	39.92	2.218	
1	2.931	STR-I	POS.	89.44	0.77	36.34	2.440	
1	3.908	STR-I	POS.	89.44	0.66	32.76	2.710	
1	4.885	STR-I	POS.	89.44	0.55	29.18	3.046	
1	5.863	STR-I	POS.	89.44	0.44	26.08	3.412	
1	6.840	STR-I	POS.	89.44	0.33	23.90	3.728	
1	7.817	STR-I	POS.	89.44	0.22	21.72	4.107	
1	8.794	STR-I	POS.	89.44	0.11	19.54	4.572	
1	9.771L	STR-I	POS.	89.44	0.00	17.36	5.152	
1	9.771R	STR-I	POS.	89.44	0.00	17.36	5.152	
1	10.748	STR-I	NEG.	89.44	-0.11	-19.54	4.572	

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SPECIAL #4 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-21.72	4.107	
1	12.702	STR-I	NEG.	89.44	-0.33	-23.90	3.728	
1	13.679	STR-I	NEG.	89.44	-0.44	-26.08	3.412	
1	14.656	STR-I	NEG.	89.44	-0.55	-29.18	3.046	
1	15.633	STR-I	NEG.	89.44	-0.66	-32.76	2.710	
1	16.610	STR-I	NEG.	89.44	-0.77	-36.34	2.440	
1	17.588	STR-I	NEG.	89.44	-0.87	-39.92	2.218	
1	18.565	STR-I	NEG.	89.44	-0.98	-43.51	2.033	
1	19.542	STR-I	NEG.	89.44	-1.09	-47.09	1.876	

Madawaska Minor Stringer MaineDOT Trucks 1-4
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	23.87	0.003071
	LL (SPECIAL #2)	0.00	24.65	0.003071
	LL (SPECIAL #3)	0.00	24.34	0.003071
	LL (SPECIAL #4)	0.00	24.42	0.002707

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Minor Stringer MaineDOT Trucks 1-4
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	31.75	-0.004085
	LL (SPECIAL #2)	0.00	32.79	-0.004085
	LL (SPECIAL #3)	0.00	32.38	-0.004085
	LL (SPECIAL #4)	0.00	32.47	-0.003600
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	31.75	0.004085
	LL (SPECIAL #2)	0.00	32.79	0.004085
	LL (SPECIAL #3)	0.00	32.38	0.004085
	LL (SPECIAL #4)	0.00	32.47	0.003600

Note: Rotation is about an axis normal to the centerline of the beam.

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69
2	SPECIAL #1	0.00	39.79
	SPECIAL #2	0.00	41.09
	SPECIAL #3	0.00	40.57
	SPECIAL #4	0.00	40.69

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer MaineDOT Trucks 1-4
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	
2	SPECIAL #1	0.00		39.79	
	SPECIAL #2	0.00		41.09	
	SPECIAL #3	0.00		40.57	
	SPECIAL #4	0.00		40.69	

Note: Impact must be added for pier cap design

Madawaska Minor Stringer MaineDOT Trucks 1-4
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory Operating	Flexure Not Applicable	T	1.838	91.9	1	0.000	STR-I
SPECIAL #2							
Inventory Operating	Flexure Not Applicable	T	1.838	86.4	1	0.000	STR-I
SPECIAL #3							
Inventory Operating	Flexure Not Applicable	T	1.838	80.9	1	0.000	STR-I
SPECIAL #4							
Inventory Operating	Shear Not Applicable		1.876	82.6	1	0.000	STR-I

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY RATING (IR)	Dist. Fact.	0.258	0.258	0.258	0.600
	Loc. (ft)	0.000	0.000	0.000	0.000
	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	1.84M	1.84M	1.84M	1.88S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING RATING (OR)	Dist. Fact.	---	---	---	---
	Loc. (ft)	---	---	---	---
	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					167.83
Location (ft)					2.93
Maximum Factored Shear Resistance (kips)					89.44
Location (ft)					0.00
					Span Length(ft) = 19.54

Madawaska Minor Stringer MaineDOT Trucks 1-4
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS

S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer MaineDOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Minor Stringer MaineDOT Trucks 1-4
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

SPECIAL #2

BEARING STIFFENER CHECK

SPECIAL #3

BEARING STIFFENER CHECK

SPECIAL #4

BEARING STIFFENER CHECK

 Madawaska Minor Stringer MainedOT Trucks 1-4

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor MainedOT Trucks 1-4.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	19
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	20
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	23
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	24
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	24
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	25
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	26
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	27
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	28
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #1 - ANALYSIS.....	29
UNFACTORED FLEXURAL STRESSES.....	29
USER INPUT LATERAL STRESSES.....	38
FACTORED ANALYSIS RESULTS.....	38
FACTORED LATERAL STRESSES.....	44
SPECIAL #1 - SPECIFICATION CHECKING.....	45
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	45
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	53
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	56
FLANGE LATERAL CAPACITY.....	61
NET SECTION FRACTURE CHECK.....	61
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	61
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	65

SHEAR CAPACITY.....	67
SPECIAL #1 - RATINGS W/O FWS.....	72
RATING FACTORS - SUMMARY.....	72
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	72
RATING FACTORS - SHEAR CAPACITY.....	73
SPECIAL #2 - ANALYSIS.....	75
UNFACTORED FLEXURAL STRESSES.....	75
USER INPUT LATERAL STRESSES.....	76
FACTORED ANALYSIS RESULTS.....	77
FACTORED LATERAL STRESSES.....	78
SPECIAL #2 - SPECIFICATION CHECKING.....	79
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	79
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	80
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	82
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	83
FLANGE LATERAL CAPACITY.....	85
NET SECTION FRACTURE CHECK.....	85
SHEAR CAPACITY.....	85
SPECIAL #2 - RATINGS W/O FWS.....	87
RATING FACTORS - SUMMARY.....	87
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	87
RATING FACTORS - SHEAR CAPACITY.....	88
SPECIAL #3 - ANALYSIS.....	90
UNFACTORED FLEXURAL STRESSES.....	90
USER INPUT LATERAL STRESSES.....	91
FACTORED ANALYSIS RESULTS.....	92
FACTORED LATERAL STRESSES.....	93
SPECIAL #3 - SPECIFICATION CHECKING.....	94
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	94
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	95
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	97
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	98
FLANGE LATERAL CAPACITY.....	100
NET SECTION FRACTURE CHECK.....	100
SHEAR CAPACITY.....	100
SPECIAL #3 - RATINGS W/O FWS.....	102
RATING FACTORS - SUMMARY.....	102
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	102
RATING FACTORS - SHEAR CAPACITY.....	103
SPECIAL #4 - ANALYSIS.....	105
UNFACTORED FLEXURAL STRESSES.....	105

USER INPUT LATERAL STRESSES.....	106
FACTORED ANALYSIS RESULTS.....	107
FACTORED LATERAL STRESSES.....	108
SPECIAL #4 - SPECIFICATION CHECKING.....	109
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	109
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	110
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	112
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	113
FLANGE LATERAL CAPACITY.....	115
NET SECTION FRACTURE CHECK.....	115
SHEAR CAPACITY.....	115
SPECIAL #4 - RATINGS W/O FWS.....	117
RATING FACTORS - SUMMARY.....	117
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	117
RATING FACTORS - SHEAR CAPACITY.....	118
SUMMARY - OVERALL REACTIONS.....	120
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	120
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	121
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	122
DL REACTIONS (UNFACTORED) PER GIRDER.....	122
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	122
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	123
DL REACTIONS (UNFACTORED) PER GIRDER.....	123
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	123
OVERALL RATING SUMMARY W/O FWS.....	124
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	124
BRIDGE LOAD RATINGS W/O FWS.....	124
SUMMARY - SPECIFICATION CHECKS.....	126
SPECIFICATION CHECK WARNINGS.....	126
SPECIFICATION CHECK FAILURES.....	127

MINOR SECTION LOSS MAINEDOT LEGAL CONFIGURATIONS 5-8

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*****
*
* Program Title      LRFD Steel Girder Design and Rating
* Program Name      STLRFD
* Version           2.4.0.0
* Last Updated      09/08/2016
* Documentation      09/2016
* License No.       332672
*
*****
*
* Madawaska Minor Stringer MaineDOT Trucks 5-8
*
* MADE BY: SMZ              DATE: 09/22/17
*
* CHECKED BY: EMG           DATE: 09/29/17
*
* BACKCHECKED BY: SMZ       DATE: 09/29/17
*
*****
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Madawaska Minor Stringer MaineDOT Trucks 5-8
INPUT

U:\63738 - MaineDOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Run

!Madawaska Minor Stringer MaineDOT Trucks 5-8
! ** Created by EngAsst **
! EngAsst Information: [Program=STLRFD] [Version=2.4.0.0]
! ** Data Records Start Here **
CFG 58,0
TTL Madawaska Minor Stringer MaineDOT Trucks 5-8
TTL
TTL MADE BY: SMZ DATE: 09/22/17
TTL
TTL CHECKED BY: EMG DATE: 09/29/17
TTL
TTL BACKCHECKED BY: SMZ DATE: 09/29/17
TTL
CTL ,A,PG,I,9,1,N,N,168,,E
GEO 2.583,,,2
UDF 1,D,0.258,0.258,0.6,0.6,1,F,0,0,0,0
URF 1,D,0.6,1,F,0
URF 2,D,0.6,2,F,0
SKW 1,90,N,2,90,N
SPL 1,19.5416666666667
MAT 1,N,30,30,30
APL 1,0,1,19.5416,1,C,13.756,0.41,5.5,0.622,5.5,0.622
SLS 1,0,1,19.5416,TP,T,0,5.5,0.03125,BP,B,0,5.5,0.03125
SLS 1,0,1,19.5416,W,L,6.878,10,0.03125,W,R,6.878,6,0.03125
SLB 5,5,4,0
LDF SLL,1.45,0,0,0,0,0,0,0,0,0,0,0,0,0
DLD DC1,1,0,1,19.5416666666667,0.047,0.047
SLL 1,N,0,0
SAL 1,10,10,22,4,22,16,17,4,17,0
SLL 2,N,0,0
SAL 2,11.9,9,21.3,4,21.4,4,21.3,0
SLL 3,N,0,0
SAL 3,13.4,10,23,4,23,0
SLL 4,N,0,0
SAL 4,13.2,10,24.2,0
BRP 1,0,1,19.5417,9.77
OIN 1,1,1
OAN 0,0,1,1,1,1,1,0,1,1,0,0,0,1,0,1
OSC 0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0
ORF 1,1,1,1

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS

COMMAND: CFG

NO. OF LINES PER PAGE	58
NO. OF TOP BLANK LINES	0

COMMAND: CTL

SYSTEM OF UNITS	US	(default)
DESIGN/ANALYSIS	A	
TYPE OF BEAM	PG	
EXTERIOR/INTERIOR	I	
NO. OF BEAMS	9	
NO. OF SPANS	1	
SYMMETRY	N	
DECK POUR SYMMETRY	N	
ADTT FOR SINGLE LANE	168	
MULT. PRES. ADJ. FACTOR	1.0	(default)
LIVE LOAD	E	
DYNAMIC LOAD ALLOWANCE	1.33	(default)
FATIGUE DYN. LOAD ALLOW.	1.15	(default)
PA TRAFFIC FACTOR	1.20	(default)
REDISTRIBUTE NEG. MOMENTS	N	(default)
IMPORTANCE FACTOR	1.0	(default)
DUCTILITY FACTOR	1.0	(default)
REDUNDANCY FACTOR	1.0	(default)
REDUNDANT LOAD PATH	R	(default)
OUTPUT POINTS	2	(default)
P-82 DYN. LOAD ALLOW.	1.20	(default)
SKEW ANGLE DESIGNATION	P	(default)
CONSTANT LATERAL STRESS	0. ksi	(default)
DC1S PERCENTAGE	0.	(default)

COMMAND: GEO

BEAM/STRINGER SPACING	2.583 ft

%WARNING - <GEO>:

Real value out of range

The value entered for BEAM/STRINGER SPACING is
less than the lower range limit.

Value Entered: 2.583

Valid values are between 3. and 18.

DECK OVERHANG	* ft	(computed, if necessary)
STAGGERED DIAPHRAGMS	N	(default)
NO. OF DESIGN LANES	2	
DEFLECTION DF	*	(computed, if necessary)
SDWK NO. OF DESIGN LANES	*	(computed, if necessary)
SDWK DEFLECTION DF	*	(computed, if necessary)

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: UDF

SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	D
MOMENT DF1	0.258
MOMENT DF2	0.258
SHEAR DF1	0.6
SHEAR DF2	0.6
SPAN NUMBER	1
DISTRIBUTION FACTOR TYPE	F
MOMENT DF1	0
MOMENT DF2	0
SHEAR DF1	0
SHEAR DF2	0

COMMAND: URF

SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	1
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: URF

SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	D
REACTION DF	0.6
SUPPORT NUMBER	2
DISTRIBUTION FACTOR TYPE	F
REACTION DF	0

COMMAND: SKW

SUPPORT NUMBER	1
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N
SUPPORT NUMBER	2
SKEW ANGLE	90
APPLY SKEW CORR. FACTOR	N

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SPL

SPAN NUMBER	1
SPAN LENGTH	19.541666666 ft

COMMAND: MAT

MATERIAL ID NUMBER	1	
NONCOMPOSITE/COMPOSITE	N	
WEB YIELD STRENGTH	30 ksi	
TOP FLANGE YLD. STRENGTH	30 ksi	
BOT. FLANGE YLD. STRENGTH	30 ksi	
CLAS.STRENGTH WELD METAL	70. ksi	(default)
WEB TENSILE STRENGTH	* ksi	(computed, if necessary)
TOP FLANGE TENSILE STR.	* ksi	(computed, if necessary)
BOT FLANGE TENSILE STR.	* ksi	(computed, if necessary)

COMMAND: APL

START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.5416 ft
MATERIAL ID NUMBER	1
WEB DEPTH VARIATION	C
WEB DEPTH	13.756 in

%WARNING - <APL>:
Real value out of range
The value entered for WEB DEPTH is
less than the lower range limit.
Value Entered: 13.756
Valid values are between 18. and 144.

WEB THICK.	0.41 in
TOP PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for TOP PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

TOP PLATE THICK.	0.622 in
BOT. PLATE WIDTH	5.5 in

%WARNING - <APL>:
Real value out of range
The value entered for BOT. PLATE WIDTH is
less than the lower range limit.
Value Entered: 5.5
Valid values are between 12. and 50.

BOT. PLATE THICK.	0.622 in	
HAUNCH DEPTH	0. in	(default)
DECK REINF. AREA	0. in^2/ft	(default)
DECK REINF. C.G. DIST.	0. in	(default)

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	TP
LOCATION	T
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	BP
LOCATION	B
DISTANCE	0 in
WIDTH	5.5 in
THICKNESS	0.03125 in

COMMAND: SLS

START SPAN NUMBER	1
START LOSS DISTANCE	0 ft
END SPAN NUMBER	1
END LOSS DISTANCE	19.5416 ft
SECTION LOSS ELEMENT	W
LOCATION	L
DISTANCE	6.878 in
WIDTH	10 in
THICKNESS	0.03125 in
SECTION LOSS ELEMENT	W
LOCATION	R
DISTANCE	6.878 in
WIDTH	6 in
THICKNESS	0.03125 in

COMMAND: SLB

ACTUAL SLAB THICK.	5 in
EFF. SLAB THICK.	5 in
CONCRETE STRENGTH	4 ksi
CONC. DENSITY FOR LOADS	0 lbf/ft^3

%WARNING - <SLB>:

Real value out of range

The value entered for CONC. DENSITY FOR LOADS is
less than the lower range limit.

Value Entered: 0.

Valid values are between 100. and 180.

CONC. DENSITY FOR EC	145. lbf/ft^3	(default)
DECK REINF. STRENGTH	60. ksi	(default)
STEEL MOD. OF ELASTICITY	29000. ksi	(default)
SLAB TRANSVERSE BAR SIZE	*	(computed, if necessary)
DEV. LENGTH FACTOR SLAB	1.0	(default)

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: LDF

LOAD FACTOR TYPE	SLL
LOAD FACTOR STRENGTH I	1.45
LOAD FACTOR STRENGTH IP	0
LOAD FACTOR STRENGTH IA	0
LOAD FACTOR STRENGTH II	0
LOAD FACTOR STRENGTH III	0
LOAD FACTOR STRENGTH IV	0
LOAD FACTOR STRENGTH V	0
LOAD FACTOR SERVICE II	0
LOAD FACTOR SERVICE IIA	0
LOAD FACTOR SERVICE IIB	0
LOAD FACTOR FATIGUE I	0
LOAD FACTOR DEFLECTION	0
LOAD FACTOR CONSTRUCTION	0
LOAD FACTOR SERVICE I	0
LOAD FACTOR FATIGUE II	0

COMMAND: DLD

LOAD TYPE	DC1
START SPAN NUMBER	1
START DISTANCE	0 ft
END SPAN NUMBER	1
END DISTANCE	19.541666666 ft
START MAGNITUDE	0.047 kip/ft
END MAGNITUDE	0.047 kip/ft

COMMAND: SLL

SPECIAL LL NUMBER	1
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

COMMAND: SAL

SPECIAL LL NUMBER	1
AXLE LOAD	10 kip
AXLE SPACING	10 ft
AXLE LOAD	22 kip
AXLE SPACING	4 ft
AXLE LOAD	22 kip
AXLE SPACING	16 ft
AXLE LOAD	17 kip
AXLE SPACING	4 ft
AXLE LOAD	17 kip
AXLE SPACING	0 ft

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: SLL	
SPECIAL LL NUMBER	2
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0
COMMAND: SAL	
SPECIAL LL NUMBER	2
AXLE LOAD	11.9 kip
AXLE SPACING	9 ft
AXLE LOAD	21.3 kip
AXLE SPACING	4 ft
AXLE LOAD	21.4 kip
AXLE SPACING	4 ft
AXLE LOAD	21.3 kip
AXLE SPACING	0 ft
COMMAND: SLL	
SPECIAL LL NUMBER	3
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0
COMMAND: SAL	
SPECIAL LL NUMBER	3
AXLE LOAD	13.4 kip
AXLE SPACING	10 ft
AXLE LOAD	23 kip
AXLE SPACING	4 ft
AXLE LOAD	23 kip
AXLE SPACING	0 ft
COMMAND: SLL	
SPECIAL LL NUMBER	4
AXLE EFFECT	N
LANE LOAD	0 kip/ft
PERCENT INCREASE	0

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

COMMAND: SAL

SPECIAL LL NUMBER	4
AXLE LOAD	13.2 kip
AXLE SPACING	10 ft
AXLE LOAD	24.2 kip
AXLE SPACING	0 ft

COMMAND: BRP

START SPAN NUMBER	1
START SPAN DISTANCE	0 ft
END SPAN NUMBER	1
END SPAN DISTANCE	19.5417 ft
BRACE SPACING	9.77 ft

COMMAND: OIN

INPUT FILE ECHO	1
INPUT COMMANDS	1
INPUT SUMMARY	1

COMMAND: OAN

POINTS OF CONTRAFLEXURE	0
COMPACTNESS CHK REDIST.	0
LOAD MODIFIERS	1
DEAD LOADS	1
DISTRIBUTION FACTORS	1
DEAD LOAD EFFECTS	1
DEAD LOAD REACTIONS	1
STAGING ANALYSIS	0
LIVE LOAD EFFECTS	1
LIVE LOAD REACTIONS	1
HS20 EFFECTS & REACTIONS	0
H20 EFFECTS & REACTIONS	0
FATIGUE EFFECTS & REACT.	0
FACTORED EFFECTS	1
FACTORED REACTIONS	0
SUMMARY-OVERALL REACTIONS	1

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

INPUT COMMANDS (cont.)

COMMAND: OSC	
DUCTILITY AND PROPORTIONS	0
WIND EFFECTS	0
FLEXURAL CAPACITY	1
SHEAR CAPACITY	1
WEB CHECKS	0
STIFFENER CHECKS	0
FATIGUE CHECKS	0
FATIGUE LIFE ESTIMATION	0
DEFLECTION CHECKS	0
SHEAR CONNECTOR CHECKS	0
STAGING / UNCURED CHECKS	0
WELD CAPACITY	0
ECONOMIC FEASIBILITY	0
NEG MOM SERVICEABILITY	0
SPLRFD INFORMATION	0
COMMAND: ORF	
VEHICLE RATING SUMMARY	1
DETAILED RATING FACTORS	1
OVERALL RATING SUMMARY	1
RATINGS W/O FWS	1

The following are system settings:

STEEL DENSITY/WEIGHT	490. lbf/ft^3	(default)
CONSTRUCT. MODULAR RATIO	*	(computed, if necessary)
INC. FLG. IN HAUNCH WGT.	Y	(default)
AASHTO/PENNDOT SPECS	P	(default)
PRINT DIMENSION FILE	N	(default)

%WARNING - <Input Post Processor>:

The specified yield strength of the web should
 be greater than the maximum of 36 ksi or 70 percent
 of the specified yield strength of the higher
 strength flange. (LRFD 6.10.1.3)
 For Material ID No. 1:
 Web yield of 30. ksi is less than 36. ksi

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----INPUT COMMANDS (cont.)

Input Check Completed

- 6 warnings were issued.
- Please verify that the input is correct.
- The program will continue running.

CONTROL PARAMETERS

Units	Design/ Analysis	Type of Beam	Exterior/ Interior	No. Beams	No. Spans	Symmetry	Deck Pour Symmetry		
US	ANALYSIS	PLATE GIRDER	INTERIOR	9	1	NO	NO		
Single Lane ADTT 168	Multiple Presence Adj. Factor 1.000	Live Load Code E	Dynamic Load Allowance 1.330		Fatigue Dynamic Load Allowance 1.150	PA Traffic Factor 1.200	Redist. Neg. Moments NO		
Impor. Factor 1.000	Duct. Factor 1.000	Redun. Factor 1.000	Redundant Load Path R	Analysis Points 2	P-82 Dynamic Load Allowance 1.200	Skew Angle Designation P	Constant Lateral Bending Stress (ksi) 0.00	DC1S Percentage 0.00	

BEAM GEOMETRY

Beam/ Stringer Spacing (ft)	Deck Overhang (ft)	Staggered Diaphragms	Number of Design Lanes	Deflection Distribution Factor
2.583		NO	2	

USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.258	0.258	0.600	0.600

USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE

Span No.	Moment		Shear	
	DF1	DF2	DF1	DF2
1	0.000	0.000	0.000	0.000

USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE

Support No.	Reaction DF
1	0.600
2	0.600

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 INPUT (cont.)

 USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE

Support No.	Reaction DF
1	0.000
2	0.000

 SKEW ANGLES

Support	1	2
Angle (deg)	90.000	90.000
Apply skew	N	N

 SPAN LENGTHS

Span No.	1
Length (ft)	19.542

 MATERIAL PROPERTIES

Matl. ID No.	Noncomposite/ Composite	Web Fy (ksi)	Top Fy (ksi)	Bottom Fy (ksi)	Flange Fu (ksi)	Plate Top Fu (ksi)	Bottom Fu (ksi)	Classification Strength of Weld Metal (ksi)
1	NONCOMPOSITE	30.0	30.0	30.0	60.0	60.0	60.0	70.0

 PLATE GIRDER PROPERTIES, PART 1 of 2

End Span No.	End Span Dist.* (ft)	Matl. ID No.	L S E	H L R	V E Y	Web Depth (in)	Web Thick. (in)	Top Plate Width (in)	Top Plate Thick. (in)	Bottom Plate Width (in)	Bottom Plate Thick. (in)
1	19.542	1	L			13.756	0.410	5.5000	0.6220	5.5000	0.6220

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

 PLATE GIRDER PROPERTIES, PART 2 of 2

End Span No.	End Span Dist.* (ft)	Haunch Depth (in)	Deck Reinf. Area (in^2/ft)	Reinf. C.G. Dist. (in)
1	19.542	0.000	0.000	0.000

* The properties given on each line of this table are for the range of the beam to the LEFT of the span and the distance given.

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----SECTION LOSSES

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Loss Type	Location	Distance (in)	Width (in)	Thick. (in)
1	0.000	1	19.542	Top Plate	Top	0.000	5.500	0.0312
				Bottom Plate	Bottom	0.000	5.500	0.0312
				Web	Left	6.878	10.000	0.0312
				Web	Right	6.878	6.000	0.0312

SLAB PROPERTIES, PART 1 OF 2

Slab Thickness Actual (in)	Slab Thickness Effective (in)	Concrete Strength (ksi)	Concrete Loads (lb/ft^3)	Density Ec (lb/ft^3)	Deck Reinforcement Strength (ksi)
5.000	5.000	4.000	0.00	145.00	60.

SLAB PROPERTIES, PART 2 OF 2

Modular Ratio	Steel E (ksi)	Transverse Reinforcement Size	Development Length Factor for Slabs
8.000	29000.	N/A	1.000

LOAD FACTORS

Load Factor Type	STR-I	STR-IP	STR-IA	STR-II	STR-III	STR-IV	STR-V
SLL	1.450	0.000	0.000	0.000	0.000	0.000	0.000

Load Factor Type	SERV-I	SERV-II	SERV-IIA	SERV-IIB	FATG-I	FATG-II	DEFL	CONSTR
SLL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DISTRIBUTED LOADS (DC1)

Start No.	Span Dist. (ft)	End No.	Span Dist. (ft)	Start Magnitude (kips/ft)	End Magnitude (kips/ft)
1	0.000	1	19.542	0.047	0.047

Madawaska Minor Stringer MaineDOT Trucks 5-8INPUT (cont.)
-----SPECIAL LIVE LOADING

LL No.	Axle Effect	Lane Load (kip/ft)	Percentage Increase
1	N	0.000	0.000
2	N	0.000	0.000
3	N	0.000	0.000
4	N	0.000	0.000

SPECIAL AXLE LOAD

LL No.	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)	Axle Load (kip)	Spacing (ft)
1	10.000	10.000	22.000	4.000	22.000	16.000	17.000	4.000
	17.000	0.000						
2	11.900	9.000	21.300	4.000	21.400	4.000	21.300	0.000
3	13.400	10.000	23.000	4.000	23.000	0.000		
4	13.200	10.000	24.200	0.000				

BRACE POINTS

Start Span No.	Start Span Dist. (ft)	End Span No.	End Span Dist. (ft)	Brace Spacing (ft)
1	0.000	1	19.542	9.770

SYSTEM SETTINGS

Steel Weight (lbf/ft^3)	Construction Modular Ratio
490.00	11.000

Madawaska Minor Stringer MaineDOT Trucks 5-8

SECTION PROPERTIES

NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE)

Span No.	Dist. (ft)	Moment of Inertia (in ⁴)	Bot. of Beam (in)	Top of Beam (in)	Distance to Neutral Axis CG of Reinf. (in)	Top of Slab (in)	Bot. of Beam (in ³)	Section Modulus Top of Beam (in ³)	Modulus CG of Reinf. (in ³)	Top of Slab (in ³)
1	0.000	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	0.977	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	1.954	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	2.931	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	3.908	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	4.885	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	5.863	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	6.840	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	7.817	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	8.794	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771L	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	9.771R	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	10.748	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	11.725	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	12.702	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	13.679	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	14.656	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	15.633	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	16.610	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	17.588	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	18.565	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A
1	19.542	420.	7.500	7.500	N/A	N/A	56.	56.	N/A	N/A

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	0.000	11.64	0.000	8.	8.	16.	1.189	1.588
1	0.977	11.64	0.000	8.	8.	16.	1.189	1.588
1	1.954	11.64	0.000	8.	8.	16.	1.189	1.588
1	2.931	11.64	0.000	8.	8.	16.	1.189	1.588
1	3.908	11.64	0.000	8.	8.	16.	1.189	1.588
1	4.885	11.64	0.000	8.	8.	16.	1.189	1.588
1	5.863	11.64	0.000	8.	8.	16.	1.189	1.588
1	6.840	11.64	0.000	8.	8.	16.	1.189	1.588
1	7.817	11.64	0.000	8.	8.	16.	1.189	1.588
1	8.794	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771L	11.64	0.000	8.	8.	16.	1.189	1.588
1	9.771R	11.64	0.000	8.	8.	16.	1.189	1.588
1	10.748	11.64	0.000	8.	8.	16.	1.189	1.588
1	11.725	11.64	0.000	8.	8.	16.	1.189	1.588
1	12.702	11.64	0.000	8.	8.	16.	1.189	1.588

Madawaska Minor Stringer MaineDOT Trucks 5-8

SECTION PROPERTIES (cont.)

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1) (cont.)

Span No.	Dist. (ft)	Beam Area (in ²)	Effect. Slab Width (in)	C.Flange Iyc (in ⁴)	Moment of Inertia T.Flange Iyt (in ⁴)	Y Axis Iy (in ⁴)	Radius of Gyration Steel ry (in)	C.Flange r' (in)
1	13.679	11.64	0.000	8.	8.	16.	1.189	1.588
1	14.656	11.64	0.000	8.	8.	16.	1.189	1.588
1	15.633	11.64	0.000	8.	8.	16.	1.189	1.588
1	16.610	11.64	0.000	8.	8.	16.	1.189	1.588
1	17.588	11.64	0.000	8.	8.	16.	1.189	1.588
1	18.565	11.64	0.000	8.	8.	16.	1.189	1.588
1	19.542	11.64	0.000	8.	8.	16.	1.189	1.588

ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2)

Span No.	Dist. (ft)	1st M of I of Transf'd Section, Q (in ³)	N.A. to Top Slab (in)	Plastic Properties Moment Mp (k-ft)	Depth of Web, Dcp (in)	Dist. Bet. C.G. Steel & Slab (in)	Longitud. Stiff. Parameter (10 ⁴ in ⁴)
1	0.000	N/A	N/A	167.8	6.691	N/A	1.65
1	0.977	N/A	N/A	167.8	6.691	N/A	1.65
1	1.954	N/A	N/A	167.8	6.691	N/A	1.65
1	2.931	N/A	N/A	167.8	6.691	N/A	1.65
1	3.908	N/A	N/A	167.8	6.691	N/A	1.65
1	4.885	N/A	N/A	167.8	6.691	N/A	1.65
1	5.863	N/A	N/A	167.8	6.691	N/A	1.65
1	6.840	N/A	N/A	167.8	6.691	N/A	1.65
1	7.817	N/A	N/A	167.8	6.691	N/A	1.65
1	8.794	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771L	N/A	N/A	167.8	6.691	N/A	1.65
1	9.771R	N/A	N/A	167.8	6.691	N/A	1.65
1	10.748	N/A	N/A	167.8	6.691	N/A	1.65
1	11.725	N/A	N/A	167.8	6.691	N/A	1.65
1	12.702	N/A	N/A	167.8	6.691	N/A	1.65
1	13.679	N/A	N/A	167.8	6.691	N/A	1.65
1	14.656	N/A	N/A	167.8	6.691	N/A	1.65
1	15.633	N/A	N/A	167.8	6.691	N/A	1.65
1	16.610	N/A	N/A	167.8	6.691	N/A	1.65
1	17.588	N/A	N/A	167.8	6.691	N/A	1.65
1	18.565	N/A	N/A	167.8	6.691	N/A	1.65
1	19.542	N/A	N/A	167.8	6.691	N/A	1.65

Madawaska Minor Stringer MaineDOT Trucks 5-8
ANALYSIS

LOAD FACTORS AND COMBINATIONS

Limit State	DC1	DC2	FWS	LL	PL	WND	MC1	MC2
STR-I	1.25	1.25	1.50	1.45	0.00	0.00	1.25	1.25
STR-IA	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-II	1.25	1.25	1.50	0.00	0.00	0.00	1.25	1.25
STR-III	1.25	1.25	1.50	0.00	0.00	1.40	1.25	1.25
STR-IV	1.50	1.50	1.50	0.00	0.00	0.00	1.50	1.50
STR-V	1.25	1.25	1.50	0.00	0.00	0.40	1.25	1.25
SERV-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIA	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
SERV-IIB	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-I	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
FATG-II	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
DEFL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTR	1.40	1.40	1.40	0.00	0.00	1.00	1.40	1.40

LIVE LOADING SUMMARY

Limit State	Design/Analysis Loading	Rating Loading	Rating Loading	Rating Loading
	SPECIAL #1	SPEC #2	SPEC #3	SPEC #4
STR-I	---	---	---	---
STR-IA	---	---	---	---
STR-II	---	---	---	---
STR-III	---	---	---	---
STR-IV	---	---	---	---
STR-V	---	---	---	---
SERV-I	---	---	---	---
SERV-II	---	---	---	---
SERV-IIA	---	---	---	---
SERV-IIB	---	---	---	---
FATG-I	FATIGUE	---	---	---
FATG-II	FATIGUE	---	---	---
DEFL	DEFLECT	---	---	---

LOAD MODIFIER

Importance Factor	Ductility Factor	Redundancy Factor	Calculated	Load Modifier	Fatigue Load Modifier
Ni	Nd	Nr	Ni*Nd*Nr	Used	Used
1.00	1.00	1.00	1.000	1.000	1.000

Madawaska Minor Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

RESISTANCE FACTORS

Flexure	Shear	Axial Compression	Bearing on Pins	Shear Connector	Shear on Fillet Weld Throat	Web Crippling
1.00	1.00	0.90	1.00	0.85	0.80	0.80

DEAD LOADS

End Span No.	End Span Dist. (ft)	Beam Weight (kips/ft)	Slab & Haunch Weight (kips/ft)	Additional DC1S* (kips/ft)
1	0.977	0.042	0.000	0.000
1	1.954	0.042	0.000	0.000
1	2.931	0.042	0.000	0.000
1	3.908	0.042	0.000	0.000
1	4.885	0.042	0.000	0.000
1	5.863	0.042	0.000	0.000
1	6.840	0.042	0.000	0.000
1	7.817	0.042	0.000	0.000
1	8.794	0.042	0.000	0.000
1	9.771	0.042	0.000	0.000
1	10.748	0.042	0.000	0.000
1	11.725	0.042	0.000	0.000
1	12.702	0.042	0.000	0.000
1	13.679	0.042	0.000	0.000
1	14.656	0.042	0.000	0.000
1	15.633	0.042	0.000	0.000
1	16.610	0.042	0.000	0.000
1	17.588	0.042	0.000	0.000
1	18.565	0.042	0.000	0.000
1	19.542	0.042	0.000	0.000

*NOTE: The values in the ADDITIONAL DC1S column are computed using the DC1S PERCENTAGE value on the CTL command and are based on the steel self weight. The values in this column do NOT include DC1S load entered on the DLD or CLD commands.

DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.258	0.258	0.600	0.600	0.222	

DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW)

Span No.	Moment		Shear		Deflection	Code Check*
	DF1	DF2	DF1	DF2		
1	0.000	0.000	0.000	0.000	1.000	

Madawaska Minor Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.600		0.258
2	0.600		0.258

DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS

Support No.	Reaction Distribution		Rotation Distribution Factor
	Factor	Comment*	
1	0.000		0.000
2	0.000		0.000

BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.42	0.000
1	0.977	0.4	0.37	0.002
1	1.954	0.7	0.33	0.003
1	2.931	1.0	0.29	0.005
1	3.908	1.3	0.25	0.006
1	4.885	1.5	0.21	0.008
1	5.863	1.7	0.17	0.009
1	6.840	1.8	0.12	0.010
1	7.817	1.9	0.08	0.010
1	8.794	2.0	0.04	0.011
1	9.771L	2.0	0.00	0.011
1	9.771R	2.0	0.00	0.011
1	10.748	2.0	-0.04	0.011
1	11.725	1.9	-0.08	0.010
1	12.702	1.8	-0.12	0.010
1	13.679	1.7	-0.17	0.009
1	14.656	1.5	-0.21	0.008
1	15.633	1.3	-0.25	0.006
1	16.610	1.0	-0.29	0.005
1	17.588	0.7	-0.33	0.003
1	18.565	0.4	-0.37	0.002
1	19.542	0.0	-0.42	0.000

BEAM WEIGHT ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.42	-0.000148
2	0.42	0.000148

Madawaska Minor Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.46	0.000
1	0.977	0.4	0.41	0.002
1	1.954	0.8	0.37	0.004
1	2.931	1.1	0.32	0.006
1	3.908	1.4	0.28	0.007
1	4.885	1.7	0.23	0.009
1	5.863	1.9	0.18	0.010
1	6.840	2.0	0.14	0.011
1	7.817	2.2	0.09	0.011
1	8.794	2.2	0.05	0.012
1	9.771L	2.2	-0.00	0.012
1	9.771R	2.2	-0.00	0.012
1	10.748	2.2	-0.05	0.012
1	11.725	2.2	-0.09	0.011
1	12.702	2.0	-0.14	0.011
1	13.679	1.9	-0.18	0.010
1	14.656	1.7	-0.23	0.009
1	15.633	1.4	-0.28	0.007
1	16.610	1.1	-0.32	0.006
1	17.588	0.8	-0.37	0.004
1	18.565	0.4	-0.41	0.002
1	19.542	0.0	-0.46	0.000

PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.46	-0.000163
2	0.46	0.000163

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	0.000	0.0	0.87	0.000
1	0.977	0.8	0.79	0.004
1	1.954	1.5	0.70	0.007
1	2.931	2.2	0.61	0.010
1	3.908	2.7	0.52	0.014
1	4.885	3.2	0.44	0.016
1	5.863	3.6	0.35	0.019
1	6.840	3.9	0.26	0.020
1	7.817	4.1	0.17	0.022
1	8.794	4.2	0.09	0.023

Madawaska Minor Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE) (cont.)

Span No.	Dist. (ft)	Moment (k-ft)	Shear (kips)	Deflect. (in)
1	9.771L	4.3	0.00	0.023
1	9.771R	4.3	0.00	0.023
1	10.748	4.2	-0.09	0.023
1	11.725	4.1	-0.17	0.022
1	12.702	3.9	-0.26	0.020
1	13.679	3.6	-0.35	0.019
1	14.656	3.2	-0.44	0.016
1	15.633	2.7	-0.52	0.014
1	16.610	2.2	-0.61	0.010
1	17.588	1.5	-0.70	0.007
1	18.565	0.8	-0.79	0.004
1	19.542	0.0	-0.87	0.000

TOTAL DC1 ANALYSIS - REACTIONS

Support No.	Reaction (kips)	Rotation (radians)
1	0.87	-0.000311
2	0.87	0.000311

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	13.3	31.63	0.0	0.00
1	1.954	24.8	29.47	0.0	0.00
1	2.931	34.4	27.32	0.0	0.00
1	3.908	42.3	25.16	0.0	0.00
1	4.885	48.3	23.01	0.0	0.00
1	5.863	52.9	20.98	0.0	0.00
1	6.840	56.6	1.67	0.0	0.00
1	7.817	58.7	17.47	0.0	0.00
1	8.794	59.4	15.72	0.0	0.00
1	9.771L	58.7	-13.96	0.0	0.00
1	9.771R	58.7	-13.96	0.0	0.00
1	10.748	59.4	-15.72	0.0	0.00
1	11.725	58.7	-17.47	0.0	0.00
1	12.702	56.6	-19.23	0.0	0.00
1	13.679	52.9	-20.98	0.0	0.00
1	14.656	48.3	-23.01	0.0	0.00
1	15.633	42.3	-25.16	0.0	0.00
1	16.610	34.4	-27.32	0.0	0.00

Madawaska Minor Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	17.588	24.8	-29.47	0.0	0.00
1	18.565	13.3	-31.63	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	33.78	0.0	0.00	0.0	0.000
1	0.977	31.63	13.3	-0.88	7.0	0.039
1	1.954	29.47	24.8	-1.76	13.3	0.078
1	2.931	27.32	34.4	-2.63	18.8	0.114
1	3.908	25.16	42.3	-3.51	23.6	0.146
1	4.885	23.01	48.3	-5.18	32.7	0.175
1	5.863	20.98	52.9	-6.94	40.8	0.198
1	6.840	19.23	56.6	-8.70	47.5	0.220
1	7.817	17.47	58.7	-10.45	52.7	0.237
1	8.794	15.72	59.4	-12.21	56.4	0.242
1	9.771L	13.96	58.7	-13.96	58.7	0.242
1	9.771R	13.96	58.7	-13.96	58.7	0.242
1	10.748	12.21	56.4	-15.72	59.4	0.242
1	11.725	10.45	52.7	-17.47	58.7	0.237
1	12.702	8.70	47.5	-19.23	56.6	0.220
1	13.679	6.94	40.8	-20.98	52.9	0.198
1	14.656	5.18	32.7	-23.01	48.3	0.175
1	15.633	3.51	23.6	-25.16	42.3	0.146
1	16.610	2.63	18.8	-27.32	34.4	0.114
1	17.588	1.76	13.3	-29.47	24.8	0.078
1	18.565	0.88	7.0	-31.63	13.3	0.039
1	19.542	0.00	0.0	-33.78	0.0	0.000

SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	33.78	0.00	0.000000	-0.003865
2	33.78	0.00	0.003865	0.000000

Madawaska Minor Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	42.33	0.00	0.00	0.00
2	42.33	0.00	0.00	0.00

SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011264
2	0.011264	0.000000

SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	16.3	38.82	0.0	0.00
1	1.954	30.1	35.80	0.0	0.00
1	2.931	41.5	32.96	0.0	0.00
1	3.908	51.1	30.40	0.0	0.00
1	4.885	58.5	27.85	0.0	0.00
1	5.863	63.8	25.30	0.0	0.00
1	6.840	68.4	-0.88	0.0	0.00
1	7.817	73.8	13.65	0.0	0.00
1	8.794	77.0	11.09	0.0	0.00
1	9.771L	78.1	-8.54	0.0	0.00
1	9.771R	78.1	-8.54	0.0	0.00
1	10.748	77.0	-11.09	0.0	0.00
1	11.725	73.8	-13.65	0.0	0.00
1	12.702	68.4	-16.20	0.0	0.00
1	13.679	63.8	-25.30	0.0	0.00
1	14.656	58.5	-27.85	0.0	0.00
1	15.633	51.1	-30.40	0.0	0.00
1	16.610	41.5	-32.96	0.0	0.00
1	17.588	30.1	-35.80	0.0	0.00
1	18.565	16.3	-38.82	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

Madawaska Minor Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	41.85	0.0	0.00	0.0	0.000
1	0.977	38.82	16.3	-0.85	6.8	0.053
1	1.954	35.80	30.1	-1.71	12.9	0.105
1	2.931	32.96	41.5	-2.56	18.3	0.154
1	3.908	30.40	51.1	-3.42	23.0	0.200
1	4.885	27.85	58.5	-5.04	31.8	0.240
1	5.863	25.30	63.8	-6.74	39.7	0.274
1	6.840	22.74	66.9	-8.45	46.1	0.300
1	7.817	20.19	67.9	-10.15	51.2	0.320
1	8.794	17.64	66.7	-12.53	57.9	0.334
1	9.771L	15.08	63.4	-15.08	63.4	0.338
1	9.771R	15.08	63.4	-15.08	63.4	0.338
1	10.748	12.53	57.9	-17.64	66.7	0.334
1	11.725	10.15	51.2	-20.19	67.9	0.320
1	12.702	8.45	46.1	-22.74	66.9	0.300
1	13.679	6.74	39.7	-25.30	63.8	0.274
1	14.656	5.04	31.8	-27.85	58.5	0.240
1	15.633	3.42	23.0	-30.40	51.1	0.200
1	16.610	2.56	18.3	-32.96	41.5	0.154
1	17.588	1.71	12.9	-35.80	30.1	0.105
1	18.565	0.85	6.8	-38.82	16.3	0.053
1	19.542	0.00	0.0	-41.85	0.0	0.000

SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	41.85	0.00	0.000000	-0.005228
2	41.85	0.00	0.005228	0.000000

SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	52.45	0.00	0.00	0.00
2	52.45	0.00	0.00	0.00

Madawaska Minor Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.015237
2	0.015237	0.000000

SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	14.1	33.61	0.0	0.00
1	1.954	26.3	31.24	0.0	0.00
1	2.931	36.4	28.87	0.0	0.00
1	3.908	44.5	26.50	0.0	0.00
1	4.885	50.7	24.13	0.0	0.00
1	5.863	55.3	21.94	0.0	0.00
1	6.840	59.1	1.75	0.0	0.00
1	7.817	61.4	18.27	0.0	0.00
1	8.794	62.1	16.43	0.0	0.00
1	9.771L	61.3	-14.60	0.0	0.00
1	9.771R	61.3	-14.60	0.0	0.00
1	10.748	62.1	-16.43	0.0	0.00
1	11.725	61.4	-18.27	0.0	0.00
1	12.702	59.1	-20.10	0.0	0.00
1	13.679	55.3	-21.94	0.0	0.00
1	14.656	50.7	-24.13	0.0	0.00
1	15.633	44.5	-26.50	0.0	0.00
1	16.610	36.4	-28.87	0.0	0.00
1	17.588	26.3	-31.24	0.0	0.00
1	18.565	14.1	-33.61	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Shear (kips)	Simult Moment (k-ft)	Maximum Negative Shear (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	35.98	0.0	0.00	0.0	0.000
1	0.977	33.61	14.1	-0.92	7.3	0.041
1	1.954	31.24	26.3	-1.84	13.9	0.082
1	2.931	28.87	36.4	-2.75	19.7	0.120
1	3.908	26.50	44.5	-3.67	24.7	0.154
1	4.885	24.13	50.7	-5.42	34.2	0.184
1	5.863	21.94	55.3	-7.26	42.7	0.209
1	6.840	20.10	59.1	-9.09	49.7	0.230

Madawaska Minor Stringer MaineDOT Trucks 5-8

ANALYSIS (cont.)

SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	7.817	18.27	61.4	-10.93	55.1	0.248
1	8.794	16.43	62.1	-12.76	59.0	0.253
1	9.771L	14.60	61.3	-14.60	61.3	0.253
1	9.771R	14.60	61.3	-14.60	61.3	0.253
1	10.748	12.76	59.0	-16.43	62.1	0.253
1	11.725	10.93	55.1	-18.27	61.4	0.248
1	12.702	9.09	49.7	-20.10	59.1	0.230
1	13.679	7.26	42.7	-21.94	55.3	0.209
1	14.656	5.42	34.2	-24.13	50.7	0.184
1	15.633	3.67	24.7	-26.50	44.5	0.154
1	16.610	2.75	19.7	-28.87	36.4	0.120
1	17.588	1.84	13.9	-31.24	26.3	0.082
1	18.565	0.92	7.3	-33.61	14.1	0.041
1	19.542	0.00	0.0	-35.98	0.0	0.000

SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	35.98	0.00	0.000000	-0.004106
2	35.98	0.00	0.004106	0.000000

SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction LC (kips)	Minimum Vehicle Reaction LC (kips)	Maximum Lane Reaction LC (kips)	Minimum Lane Reaction LC (kips)
1	45.09	0.00	0.00	0.00
2	45.09	0.00	0.00	0.00

SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation LC (radians)	Minimum Rotation LC (radians)
1	0.000000	-0.011966
2	0.011966	0.000000

Madawaska Minor Stringer MaineDOT Trucks 5-8ANALYSIS (cont.)
-----SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Positive Moment (k-ft)	Simult Shear (kips)	Maximum Negative Moment (k-ft)	Simult Shear (kips)
1	0.000	0.0	0.00	0.0	0.00
1	0.977	9.6	22.96	0.0	0.00
1	1.954	18.0	21.47	0.0	0.00
1	2.931	25.2	19.98	0.0	0.00
1	3.908	31.1	18.49	0.0	0.00
1	4.885	35.7	16.99	0.0	0.00
1	5.863	39.1	15.50	0.0	0.00
1	6.840	41.2	-5.30	0.0	0.00
1	7.817	42.1	12.52	0.0	0.00
1	8.794	41.7	11.02	0.0	0.00
1	9.771L	40.6	-9.66	0.0	0.00
1	9.771R	40.6	-9.66	0.0	0.00
1	10.748	41.7	-11.02	0.0	0.00
1	11.725	42.1	-12.52	0.0	0.00
1	12.702	41.2	-14.01	0.0	0.00
1	13.679	39.1	-15.50	0.0	0.00
1	14.656	35.7	-16.99	0.0	0.00
1	15.633	31.1	-18.49	0.0	0.00
1	16.610	25.2	-19.98	0.0	0.00
1	17.588	18.0	-21.47	0.0	0.00
1	18.565	9.6	-22.96	0.0	0.00
1	19.542	0.0	0.00	0.0	0.00

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	0.000	24.45	0.0	0.00	0.0	0.000
1	0.977	22.96	9.6	-0.97	7.7	0.027
1	1.954	21.47	18.0	-1.93	14.6	0.053
1	2.931	19.98	25.2	-2.90	20.7	0.078
1	3.908	18.49	31.1	-3.86	26.0	0.101
1	4.885	16.99	35.7	-4.83	30.4	0.121
1	5.863	15.50	39.1	-5.79	34.1	0.138
1	6.840	14.01	41.2	-6.76	36.9	0.150
1	7.817	12.52	42.1	-7.72	38.9	0.159
1	8.794	11.02	41.7	-8.69	40.2	0.163
1	9.771L	9.66	40.6	-9.66	40.6	0.163
1	9.771R	9.66	40.6	-9.66	40.6	0.163
1	10.748	8.69	40.2	-11.02	41.7	0.163
1	11.725	7.72	38.9	-12.52	42.1	0.159
1	12.702	6.76	36.9	-14.01	41.2	0.150
1	13.679	5.79	34.1	-15.50	39.1	0.138

Madawaska Minor Stringer MaineDOT Trucks 5-8
ANALYSIS (cont.)

SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT) (cont.)

Span No.	Dist. (ft)	Maximum Shear Positive (kips)	Simult Moment (k-ft)	Maximum Shear Negative (kips)	Simult Moment (k-ft)	Maximum Deflect. (in)
1	14.656	4.83	30.4	-16.99	35.7	0.121
1	15.633	3.86	26.0	-18.49	31.1	0.101
1	16.610	2.90	20.7	-19.98	25.2	0.078
1	17.588	1.93	14.6	-21.47	18.0	0.053
1	18.565	0.97	7.7	-22.96	9.6	0.027
1	19.542	0.00	0.0	-24.45	0.0	0.000

SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS)

Support No.	Maximum Reaction (kips)	Minimum Reaction (kips)	Maximum Rotation (radians)	Minimum Rotation (radians)
1	24.45	0.00	0.000000	-0.002695
2	24.45	0.00	0.002695	0.000000

SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Vehicle Reaction (kips)	Minimum Vehicle Reaction (kips)	Maximum Lane Reaction (kips)	Minimum Lane Reaction (kips)
1	30.65	0.00	0.00	0.00
2	30.65	0.00	0.00	0.00

SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS)

Support No.	Maximum Rotation (radians)	Minimum Rotation (radians)
1	0.000000	-0.007855
2	0.007855	0.000000

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total		DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
					Inst*	Flex.							
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	0.0	-2.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	0.0	2.8	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	0.0	-5.3	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	1.954	TOP	SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
		BOT	SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
		BOT	SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	3.908	BOT	STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	6.840	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	8.794	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	8.794	BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	9.771R	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	9.771R	BOT	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.7	0.0
			STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-III	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-IV	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-V	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-II	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			SERV-IIA	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
		BOT	SERV-IIB	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-12.6	0.0
			STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	12.702	TOP	STR-III	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-IV	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-V	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-II	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
1	12.702	TOP	SERV-IIA	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			SERV-IIB	POS.	0.9	N/A	0.0	0.0	0.0	0.0	12.6	0.0
			STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
1	12.702	TOP	STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst*	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	12.702	TOP	STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
			SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.1	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.1	0.0
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-III	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-IV	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-V	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-II	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			SERV-IIA	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
		BOT	SERV-IIB	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.3	0.0
			STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-III	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-IV	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			STR-V	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-II	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIA	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
			SERV-IIB	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.3	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-IA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-III	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-IV	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-V	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			SERV-II	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			SERV-IIA	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
		BOT	SERV-IIB	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.3	0.0
			STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-IA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	14.656	BOT	STR-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-III	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-IV	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			STR-V	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			SERV-II	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			SERV-IIA	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
			SERV-IIB	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.3	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-IA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-III	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-IV	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-V	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			SERV-II	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
		BOT	SERV-IIA	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			SERV-IIB	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.1	0.0
			STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-IA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-III	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-IV	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-V	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			SERV-II	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			SERV-IIA	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			SERV-IIB	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.1	0.0
			STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-IA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-III	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-IV	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			STR-V	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			SERV-II	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			SERV-IIA	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
			SERV-IIB	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.4	0.0
1	16.610	TOP	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
		BOT	SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-IA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-III	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-IV	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			STR-V	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-II	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
			SERV-IIA	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	16.610	BOT	SERV-IIB	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.4	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-III	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-IV	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			STR-V	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-II	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-IIA	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
			SERV-IIB	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.3	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-III	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-IV	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			STR-V	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-II	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIA	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
			SERV-IIB	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.3	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-III	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-IV	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			STR-V	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-II	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIA	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
			SERV-IIB	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.8	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-III	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-IV	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			STR-V	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-II	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIA	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
			SERV-IIB	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.8	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	19.542	TOP	STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-III	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-IV	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			STR-V	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-II	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIA	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
			SERV-IIB	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.
 TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.
 When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress* Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	50.08	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	0.87	0.00	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	20.3	46.84	N/A*	-4.34	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	0.977	STR-IA	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	37.8	43.61	N/A*	-8.10	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	52.7	40.38	N/A*	-11.27	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	64.7	37.14	N/A*	-13.86	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.7	0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	74.1	33.91	N/A*	-15.86	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	4.885	STR-III	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	81.2	30.87	N/A*	-17.38	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	86.9	28.21	N/A*	-18.60	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	90.3	25.56	N/A*	-19.33	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-II	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	91.5	22.90	N/A*	-19.58	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	0.13	N/A*	-1.36	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f'c (ksi)	Limits* 0.85*f'c (ksi)	Code Chk**
1	8.794	STR-V	POS.	5.3	0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	90.4	20.25	N/A*	-19.36	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	90.4	20.25	N/A*	-19.36	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		STR-IV	POS.	6.4	0.00	N/A*	-1.37	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	0.00	N/A*	-1.14	0.00	N/A**	N/A**	
		SERV-I	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.3	0.00	0.91	-0.91	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	91.5	-22.90	N/A*	-19.58	0.00	N/A**	N/A**	
		STR-IA	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-II	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-III	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		STR-IV	POS.	6.3	-0.13	N/A*	-1.36	0.00	N/A**	N/A**	
		STR-V	POS.	5.3	-0.11	N/A*	-1.13	0.00	N/A**	N/A**	
		SERV-I	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-II	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.2	-0.09	0.91	-0.91	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	90.3	-25.56	N/A*	-19.33	0.00	N/A**	N/A**	
		STR-IA	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-II	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-III	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		STR-IV	POS.	6.2	-0.26	N/A*	-1.32	0.00	N/A**	N/A**	
		STR-V	POS.	5.1	-0.22	N/A*	-1.10	0.00	N/A**	N/A**	
		SERV-I	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Flexural Stress*			Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
						Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)			
1	11.725	SERV-II	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIA	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
		SERV-IIB	POS.	4.1	-0.17	0.88	-0.88	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	86.9	-28.21	N/A*	-18.60	0.00	N/A**	N/A**	
		STR-IA	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-II	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-III	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		STR-IV	POS.	5.8	-0.39	N/A*	-1.25	0.00	N/A**	N/A**	
		STR-V	POS.	4.9	-0.33	N/A*	-1.04	0.00	N/A**	N/A**	
		SERV-I	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-II	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.9	-0.26	0.83	-0.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	81.2	-30.87	N/A*	-17.38	0.00	N/A**	N/A**	
		STR-IA	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-II	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-III	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		STR-IV	POS.	5.4	-0.52	N/A*	-1.15	0.00	N/A**	N/A**	
		STR-V	POS.	4.5	-0.44	N/A*	-0.96	0.00	N/A**	N/A**	
		SERV-I	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-II	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.6	-0.35	0.77	-0.77	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	74.1	-33.91	N/A*	-15.86	0.00	N/A**	N/A**	
		STR-IA	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-II	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-III	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		STR-IV	POS.	4.8	-0.66	N/A*	-1.03	0.00	N/A**	N/A**	
		STR-V	POS.	4.0	-0.55	N/A*	-0.86	0.00	N/A**	N/A**	
		SERV-I	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-II	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIA	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
		SERV-IIB	POS.	3.2	-0.44	0.69	-0.69	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	64.7	-37.14	N/A*	-13.86	0.00	N/A**	N/A**	
		STR-IA	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-II	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-III	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		STR-IV	POS.	4.1	-0.79	N/A*	-0.88	0.00	N/A**	N/A**	
		STR-V	POS.	3.4	-0.66	N/A*	-0.73	0.00	N/A**	N/A**	
		SERV-I	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-II	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8

SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	15.633	SERV-IIB	POS.	2.7	-0.52	0.59	-0.59	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	52.7	-40.38	N/A*	-11.27	0.00	N/A**	N/A**	
		STR-IA	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-II	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-III	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		STR-IV	POS.	3.3	-0.92	N/A*	-0.70	0.00	N/A**	N/A**	
		STR-V	POS.	2.7	-0.77	N/A*	-0.58	0.00	N/A**	N/A**	
		SERV-I	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-II	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIA	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
		SERV-IIB	POS.	2.2	-0.61	0.47	-0.47	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	37.8	-43.61	N/A*	-8.10	0.00	N/A**	N/A**	
		STR-IA	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-II	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-III	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		STR-IV	POS.	2.3	-1.05	N/A*	-0.49	0.00	N/A**	N/A**	
		STR-V	POS.	1.9	-0.87	N/A*	-0.41	0.00	N/A**	N/A**	
		SERV-I	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-II	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIA	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
		SERV-IIB	POS.	1.5	-0.70	0.33	-0.33	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	20.3	-46.84	N/A*	-4.34	0.00	N/A**	N/A**	
		STR-IA	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-II	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-III	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		STR-IV	POS.	1.2	-1.18	N/A*	-0.26	0.00	N/A**	N/A**	
		STR-V	POS.	1.0	-0.98	N/A*	-0.22	0.00	N/A**	N/A**	
		SERV-I	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-II	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.8	-0.79	0.17	-0.17	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-50.08	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IA	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-II	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-III	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		STR-IV	POS.	0.0	-1.31	N/A*	0.00	0.00	N/A**	N/A**	
		STR-V	POS.	0.0	-1.09	N/A*	0.00	0.00	N/A**	N/A**	
		SERV-I	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-II	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIA	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	
		SERV-IIB	POS.	0.0	-0.87	0.00	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	5.863	STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	11.725	STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	17.588	STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IA	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-II	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-III	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-IV	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
		STR-V	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

* Legend of General Notes:

Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
- B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A A6.1.2)
- G. Continuously braced compression flange governs (App A A6.1.3)
- H. Continuously braced tension flange governs (App A A6.1.4)

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	20.3	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	1.954	STR-I	POS.	167.8	37.8	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	2.931	STR-I	POS.	167.8	52.7	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	
		STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	3.908	STR-I	POS.	167.8	64.7	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	4.885	STR-I	POS.	167.8	74.1	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	5.863	STR-I	POS.	167.8	81.2	D	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	5.863	STR-I	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	6.840	STR-I	POS.	167.8	86.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
1	7.817	STR-I	POS.	167.8	90.3	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
		STR-V	POS.	167.8	5.1	D	
1	8.794	STR-I	POS.	167.8	91.5	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	9.771L	STR-I	POS.	167.8	90.4	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
		STR-V	POS.	167.8	5.3	D	
1	9.771R	STR-I	POS.	167.8	90.4	D	
		STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.4	D	
		STR-V	POS.	167.8	5.3	D	
1	10.748	STR-I	POS.	167.8	91.5	D	
		STR-II	POS.	167.8	5.3	D	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	10.748	STR-II	POS.	167.8	5.3	D	
		STR-III	POS.	167.8	5.3	D	
		STR-IV	POS.	167.8	6.3	D	
		STR-V	POS.	167.8	5.3	D	
1	11.725	STR-I	POS.	167.8	90.3	D	
		STR-IA	POS.	167.8	5.1	D	
		STR-II	POS.	167.8	5.1	D	
		STR-III	POS.	167.8	5.1	D	
		STR-IV	POS.	167.8	6.2	D	
		STR-V	POS.	167.8	5.1	D	
1	12.702	STR-I	POS.	167.8	86.9	D	
		STR-IA	POS.	167.8	4.9	D	
		STR-II	POS.	167.8	4.9	D	
		STR-III	POS.	167.8	4.9	D	
		STR-IV	POS.	167.8	5.8	D	
		STR-V	POS.	167.8	4.9	D	
1	13.679	STR-I	POS.	167.8	81.2	D	
		STR-IA	POS.	167.8	4.5	D	
		STR-II	POS.	167.8	4.5	D	
		STR-III	POS.	167.8	4.5	D	
		STR-IV	POS.	167.8	5.4	D	
		STR-V	POS.	167.8	4.5	D	
1	14.656	STR-I	POS.	167.8	74.1	D	
		STR-IA	POS.	167.8	4.0	D	
		STR-II	POS.	167.8	4.0	D	
		STR-III	POS.	167.8	4.0	D	
		STR-IV	POS.	167.8	4.8	D	
		STR-V	POS.	167.8	4.0	D	
1	15.633	STR-I	POS.	167.8	64.7	D	
		STR-IA	POS.	167.8	3.4	D	
		STR-II	POS.	167.8	3.4	D	
		STR-III	POS.	167.8	3.4	D	
		STR-IV	POS.	167.8	4.1	D	
		STR-V	POS.	167.8	3.4	D	
1	16.610	STR-I	POS.	167.8	52.7	D	
		STR-IA	POS.	167.8	2.7	D	
		STR-II	POS.	167.8	2.7	D	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	16.610	STR-III	POS.	167.8	2.7	D	
		STR-IV	POS.	167.8	3.3	D	
		STR-V	POS.	167.8	2.7	D	
1	17.588	STR-I	POS.	167.8	37.8	D	
		STR-IA	POS.	167.8	1.9	D	
		STR-II	POS.	167.8	1.9	D	
		STR-III	POS.	167.8	1.9	D	
		STR-IV	POS.	167.8	2.3	D	
		STR-V	POS.	167.8	1.9	D	
1	18.565	STR-I	POS.	167.8	20.3	D	
		STR-IA	POS.	167.8	1.0	D	
		STR-II	POS.	167.8	1.0	D	
		STR-III	POS.	167.8	1.0	D	
		STR-IV	POS.	167.8	1.2	D	
		STR-V	POS.	167.8	1.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	
		STR-IA	POS.	167.8	0.0	D	
		STR-II	POS.	167.8	0.0	D	
		STR-III	POS.	167.8	0.0	D	
		STR-IV	POS.	167.8	0.0	D	
		STR-V	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = Mu + (1/3)*fl*Sxt, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10 Lr* (ft)	8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	5.863	TOP	STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt*	Rh*	Rb*	Dc*	Lp*	6.10.8.2.3 Lr*	Cb*	Lr*	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	11.725	TOP	STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	17.588	TOP	STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.201	18.66	1.201	140.1	1.198
			STR-IA	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-II	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-III	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-IV	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198
			STR-V	P	1.4	1.000	1.000	6.9	3.62	13.60	1.300	18.66	1.300	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of $R_b R_h F_y c$ under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Flexural Stress F_{+}^{***} (ksi)	Effects Lateral Moment M_{+}^{***} (kip-ft)	Code Chk ***
					Local Fr (ksi)	* Mr (e)** (kip-ft)	* Fr (ksi)	* Mr (e)** (kip-ft)	Local Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)	* Mr (kip-ft)			
1	0.000	TOP	STR-I	P	-29.4 B	137.	-29.4 B	167.	E	167.	E	167.	N/A	91.	
			STR-IA	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	
			STR-II	P	-30.0 B	140.	-30.0 B	168.	E	168.	E	168.	-1.1	N/A	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	0.000	TOP	STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	0.977	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	1.954	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	2.931	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	3.908	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	4.885	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
1	5.863	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	5.863	TOP	STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	6.840	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	7.817	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	8.794	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771L	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	9.771R	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	10.748	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

6.10.8.2.3										Appendix A				Factored Effects		Code
Span No.	Dist. (ft)	T/B	Limit State	Flx	Flexural Resistance				Flexural Resistance				Stress F+*** (ksi)	Effects +Lateral Moment M+*** (kip-ft)	Chk ***	
					Local Fr (ksi)	* Governing Mr(e)** (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)	Local Fr (ksi)	* Governing Mr (kip-ft)	* Fr (ksi)	* Governing Mr (kip-ft)				
1	11.725	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	12.702	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	13.679	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	14.656	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	15.633	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	16.610	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	
1	17.588	TOP	STR-I	P	-29.4	B	137.	-29.4	B	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	B	168.	E	168.	E	-1.1	N/A	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Effects		Code Chk ***
					Local Fr (ksi)	* B	Mr(e)** (kip-ft)	* B	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B	Flexural Stress F+*** (ksi)	Lateral Moment M+*** (kip-ft)	
1	17.588	TOP	STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	18.565	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
1	19.542	TOP	STR-I	P	-29.4	B	137.	-29.4	167.	E	167.	E	N/A	91.	
			STR-IA	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-II	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-III	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	
			STR-IV	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.4	N/A	
			STR-V	P	-30.0	B	140.	-30.0	168.	E	168.	E	-1.1	N/A	

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, FrF+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacityM+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
 (wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SERVICE LIMIT STATE - FLEXURAL RESISTANCE

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	0.000	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	
1	0.977	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	1.954	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	2.931	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	3.908	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	3.908	BOT	SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	4.885	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	5.863	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	6.840	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	7.817	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	8.794	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	9.771L	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	9.771R	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	10.748	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	11.725	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.9	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.9	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.9	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.9	C	
1	12.702	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	13.679	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.8	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.8	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.8	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.8	C	
1	14.656	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.7	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.7	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.7	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.7	C	
1	15.633	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.6	C	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculation Rh*	Flexural Resistance Mr(e)* (kip-ft)	Fr (ksi)	Factored Flexural Stress Fu* (ksi)	Resist. Calc.**	Code Check***
1	15.633	TOP	SERV-IIB	POS.	1.000	112.1	-24.0	-0.6	C	
			SERV-II	POS.	1.000	112.1	24.0	0.6	C	
		BOT	SERV-IIA	POS.	1.000	112.1	24.0	0.6	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.6	C	
1	16.610	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.5	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.5	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.5	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.5	C	
1	17.588	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.3	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.3	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.3	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.3	C	
1	18.565	TOP	SERV-II	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	-0.2	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	-0.2	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.2	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.2	C	
1	19.542	TOP	SERV-II	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	-24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	-24.0	0.0	C	
		BOT	SERV-II	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIA	POS.	1.000	112.1	24.0	0.0	C	
			SERV-IIB	POS.	1.000	112.1	24.0	0.0	C	

* Legend of General Notes:

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fr

Fu = For bottom flanges of composite sections or both flanges of noncomposite sections, this value includes lateral stresses when input by the user (A6.10.4.2.2)

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - FLEXURAL RESISTANCE (cont.)

** Legend of Resistance Calculation:

A. Composite, top flange, Fr calculated using A6.10.4.2.2-1

B. Composite, bottom flange, Fr calculated using A6.10.4.2.2-2

C. Noncomposite, Fr calculated using A6.10.4.2.2-3

SERVICE LIMIT STATE - WEB BEND-BUCKLING

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	0.000	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	
1	0.977	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	1.954	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	2.931	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	3.908	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	4.885	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	5.863	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	6.840	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	7.817	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	8.794	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	8.794	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771L	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	9.771R	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	10.748	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	11.725	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.9	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.9	
1	12.702	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	13.679	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.8	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.8	
1	14.656	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.7	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.7	
1	15.633	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.6	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.6	
1	16.610	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.5	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.5	
1	17.588	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.3	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.3	
1	18.565	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	-0.2	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SERVICE LIMIT STATE - WEB BEND-BUCKLING (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Intermediate Calculations		Flexural Resistance		Factored Flexural Stress	Code Check**
					Dc* (in)	Rh*	Mr(e)* (kip-ft)	Fcrw* (ksi)	fc* (ksi)	
1	18.565	TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	-0.2	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	-0.2	
1	19.542	TOP	SERV-II	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIA	POS.	6.91	1.000	140.1	-30.0	0.0	
		TOP	SERV-IIB	POS.	6.91	1.000	140.1	-30.0	0.0	

* Legend of Intermediate Calculations:

Dc = Depth of web in compression

Rh = Hybrid factor

Mr(e) = Flexural resistance in terms of moment, back-calculated from the stress flexural resistance, Fcrw

Fcrw = Nominal bend-buckling resistance, LRFD Specifications 6.10.4.2.2-4

fc = Compression-flange stress calculated without flange lateral bending

N/A = This check is not required for composite sections in positive flexure in which the web satisfies the requirement of LRFD Specifications Article 6.10.2.1.1

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance	Maximum Factored Shear	Stiffened/Unstiffened	Code Check*
			Vr (kips)	Vu (kips)		
1	0.000	STR-I	89.44	50.08	U	
		STR-IA	89.44	1.09	U	
		STR-II	89.44	1.09	U	
		STR-III	89.44	1.09	U	
		STR-IV	89.44	1.31	U	
		STR-V	89.44	1.09	U	
1	0.977	STR-I	89.44	46.84	U	
		STR-IA	89.44	0.98	U	
		STR-II	89.44	0.98	U	
		STR-III	89.44	0.98	U	
		STR-IV	89.44	1.18	U	
		STR-V	89.44	0.98	U	
1	1.954	STR-I	89.44	43.61	U	
		STR-IA	89.44	0.87	U	
		STR-II	89.44	0.87	U	
		STR-III	89.44	0.87	U	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	1.954	STR-IV	89.44	1.05	U	
		STR-V	89.44	0.87	U	
1	2.931	STR-I	89.44	40.38	U	
		STR-IA	89.44	0.77	U	
		STR-II	89.44	0.77	U	
		STR-III	89.44	0.77	U	
		STR-IV	89.44	0.92	U	
		STR-V	89.44	0.77	U	
1	3.908	STR-I	89.44	37.14	U	
		STR-IA	89.44	0.66	U	
		STR-II	89.44	0.66	U	
		STR-III	89.44	0.66	U	
		STR-IV	89.44	0.79	U	
		STR-V	89.44	0.66	U	
1	4.885	STR-I	89.44	33.91	U	
		STR-IA	89.44	0.55	U	
		STR-II	89.44	0.55	U	
		STR-III	89.44	0.55	U	
		STR-IV	89.44	0.66	U	
		STR-V	89.44	0.55	U	
1	5.863	STR-I	89.44	30.87	U	
		STR-IA	89.44	0.44	U	
		STR-II	89.44	0.44	U	
		STR-III	89.44	0.44	U	
		STR-IV	89.44	0.52	U	
		STR-V	89.44	0.44	U	
1	6.840	STR-I	89.44	28.21	U	
		STR-IA	89.44	0.33	U	
		STR-II	89.44	0.33	U	
		STR-III	89.44	0.33	U	
		STR-IV	89.44	0.39	U	
		STR-V	89.44	0.33	U	
1	7.817	STR-I	89.44	25.56	U	
		STR-IA	89.44	0.22	U	
		STR-II	89.44	0.22	U	
		STR-III	89.44	0.22	U	
		STR-IV	89.44	0.26	U	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	7.817	STR-V	89.44	0.22	U	
1	8.794	STR-I	89.44	22.90	U	
		STR-IA	89.44	0.11	U	
		STR-II	89.44	0.11	U	
		STR-III	89.44	0.11	U	
		STR-IV	89.44	0.13	U	
		STR-V	89.44	0.11	U	
1	9.771L	STR-I	89.44	20.25	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	9.771R	STR-I	89.44	20.25	U	
		STR-IA	89.44	0.00	U	
		STR-II	89.44	0.00	U	
		STR-III	89.44	0.00	U	
		STR-IV	89.44	0.00	U	
		STR-V	89.44	0.00	U	
1	10.748	STR-I	89.44	-22.90	U	
		STR-IA	89.44	-0.11	U	
		STR-II	89.44	-0.11	U	
		STR-III	89.44	-0.11	U	
		STR-IV	89.44	-0.13	U	
		STR-V	89.44	-0.11	U	
1	11.725	STR-I	89.44	-25.56	U	
		STR-IA	89.44	-0.22	U	
		STR-II	89.44	-0.22	U	
		STR-III	89.44	-0.22	U	
		STR-IV	89.44	-0.26	U	
		STR-V	89.44	-0.22	U	
1	12.702	STR-I	89.44	-28.21	U	
		STR-IA	89.44	-0.33	U	
		STR-II	89.44	-0.33	U	
		STR-III	89.44	-0.33	U	
		STR-IV	89.44	-0.39	U	
		STR-V	89.44	-0.33	U	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - SPECIFICATION CHECKING (cont.)

SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	13.679	STR-I	89.44	-30.87	U	
		STR-IA	89.44	-0.44	U	
		STR-II	89.44	-0.44	U	
		STR-III	89.44	-0.44	U	
		STR-IV	89.44	-0.52	U	
		STR-V	89.44	-0.44	U	
1	14.656	STR-I	89.44	-33.91	U	
		STR-IA	89.44	-0.55	U	
		STR-II	89.44	-0.55	U	
		STR-III	89.44	-0.55	U	
		STR-IV	89.44	-0.66	U	
		STR-V	89.44	-0.55	U	
1	15.633	STR-I	89.44	-37.14	U	
		STR-IA	89.44	-0.66	U	
		STR-II	89.44	-0.66	U	
		STR-III	89.44	-0.66	U	
		STR-IV	89.44	-0.79	U	
		STR-V	89.44	-0.66	U	
1	16.610	STR-I	89.44	-40.38	U	
		STR-IA	89.44	-0.77	U	
		STR-II	89.44	-0.77	U	
		STR-III	89.44	-0.77	U	
		STR-IV	89.44	-0.92	U	
		STR-V	89.44	-0.77	U	
1	17.588	STR-I	89.44	-43.61	U	
		STR-IA	89.44	-0.87	U	
		STR-II	89.44	-0.87	U	
		STR-III	89.44	-0.87	U	
		STR-IV	89.44	-1.05	U	
		STR-V	89.44	-0.87	U	
1	18.565	STR-I	89.44	-46.84	U	
		STR-IA	89.44	-0.98	U	
		STR-II	89.44	-0.98	U	
		STR-III	89.44	-0.98	U	
		STR-IV	89.44	-1.18	U	
		STR-V	89.44	-0.98	U	
1	19.542	STR-I	89.44	-50.08	U	
		STR-IA	89.44	-1.09	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	19.542	STR-II	89.44	-1.09	U	
		STR-III	89.44	-1.09	U	
		STR-IV	89.44	-1.31	U	
		STR-V	89.44	-1.09	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.881	82.8	1	0.000	STR-I
	Shear		1.804	79.4	1	0.000	STR-I
	Controlling		1.804	79.4	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	167.	5.	86.	1.881*	
1	1.954	STR-I	POS.	167.	5.	86.	1.881*	
1	2.931	STR-I	POS.	167.	5.	86.	1.881*	
1	3.908	STR-I	POS.	167.	5.	86.	1.881*	
1	4.885	STR-I	POS.	167.	5.	86.	1.881*	
1	5.863	STR-I	POS.	167.	5.	86.	1.881*	
1	6.840	STR-I	POS.	167.	5.	86.	1.881*	
1	7.817	STR-I	POS.	167.	5.	86.	1.881*	
1	8.794	STR-I	POS.	167.	5.	86.	1.881*	
1	9.771L	STR-I	POS.	167.	5.	86.	1.881*	
1	9.771R	STR-I	POS.	167.	5.	86.	1.881*	
1	10.748	STR-I	POS.	167.	5.	86.	1.881*	
1	11.725	STR-I	POS.	167.	5.	86.	1.881*	
1	12.702	STR-I	POS.	167.	5.	86.	1.881*	
1	13.679	STR-I	POS.	167.	5.	86.	1.881*	
1	14.656	STR-I	POS.	167.	5.	86.	1.881*	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #1 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	167.	5.	86.	1.881*	
1	16.610	STR-I	POS.	167.	5.	86.	1.881*	
1	17.588	STR-I	POS.	167.	5.	86.	1.881*	
1	18.565	STR-I	POS.	167.	5.	86.	1.881*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	48.98	1.804	
1	0.977	STR-I	POS.	89.44	0.98	45.86	1.929	
1	1.954	STR-I	POS.	89.44	0.87	42.73	2.072	
1	2.931	STR-I	POS.	89.44	0.77	39.61	2.239	
1	3.908	STR-I	POS.	89.44	0.66	36.49	2.433	
1	4.885	STR-I	POS.	89.44	0.55	33.36	2.664	
1	5.863	STR-I	POS.	89.44	0.44	30.43	2.925	
1	6.840	STR-I	POS.	89.44	0.33	27.88	3.196	
1	7.817	STR-I	POS.	89.44	0.22	25.34	3.521	
1	8.794	STR-I	POS.	89.44	0.11	22.79	3.919	
1	9.771L	STR-I	POS.	89.44	0.00	20.25	4.418	
1	9.771R	STR-I	POS.	89.44	0.00	20.25	4.418	
1	10.748	STR-I	NEG.	89.44	-0.11	-22.79	3.919	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #1 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-25.34	3.521	
1	12.702	STR-I	NEG.	89.44	-0.33	-27.88	3.196	
1	13.679	STR-I	NEG.	89.44	-0.44	-30.43	2.925	
1	14.656	STR-I	NEG.	89.44	-0.55	-33.36	2.664	
1	15.633	STR-I	NEG.	89.44	-0.66	-36.49	2.433	
1	16.610	STR-I	NEG.	89.44	-0.77	-39.61	2.239	
1	17.588	STR-I	NEG.	89.44	-0.87	-42.73	2.072	
1	18.565	STR-I	NEG.	89.44	-0.98	-45.86	1.929	
1	19.542	STR-I	NEG.	89.44	-1.09	-48.98	1.804	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.4	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	13.7	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.6	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.8	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.5	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.7	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.7	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.7	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.7	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-16.5	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	16.5	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-15.8	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	15.8	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-14.6	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	14.6	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-13.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	13.7	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-12.5	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	12.5	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-6.4	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	6.4	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.5	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.5	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	61.78	N/A*	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	24.7	57.28	N/A*	-5.28	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	45.5	52.78	N/A*	-9.75	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	63.0	48.55	N/A*	-13.48	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	77.5	44.74	N/A*	-16.60	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	88.8	40.93	N/A*	-19.02	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	97.0	37.12	N/A*	-20.76	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	104.0	33.31	N/A*	-22.28	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	112.1	29.49	N/A*	-24.00	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	116.9	25.68	N/A*	-25.03	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	118.5	21.87	N/A*	-25.38	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	118.5	21.87	N/A*	-25.38	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	116.9	-25.68	N/A*	-25.03	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	112.1	-29.49	N/A*	-24.00	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	104.0	-33.31	N/A*	-22.28	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	97.0	-37.12	N/A*	-20.76	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	88.8	-40.93	N/A*	-19.02	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	77.5	-44.74	N/A*	-16.60	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	63.0	-48.55	N/A*	-13.48	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	45.5	-52.78	N/A*	-9.75	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	24.7	-57.28	N/A*	-5.28	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-61.78	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	24.7	D	
1	1.954	STR-I	POS.	167.8	45.5	D	
1	2.931	STR-I	POS.	167.8	63.0	D	
1	3.908	STR-I	POS.	167.8	77.5	D	
1	4.885	STR-I	POS.	167.8	88.8	D	
1	5.863	STR-I	POS.	167.8	97.0	D	
1	6.840	STR-I	POS.	167.8	104.0	D	
1	7.817	STR-I	POS.	167.8	112.1	D	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

 MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	8.794	STR-I	POS.	167.8	116.9	D	
1	9.771L	STR-I	POS.	167.8	118.5	D	
1	9.771R	STR-I	POS.	167.8	118.5	D	
1	10.748	STR-I	POS.	167.8	116.9	D	
1	11.725	STR-I	POS.	167.8	112.1	D	
1	12.702	STR-I	POS.	167.8	104.0	D	
1	13.679	STR-I	POS.	167.8	97.0	D	
1	14.656	STR-I	POS.	167.8	88.8	D	
1	15.633	STR-I	POS.	167.8	77.5	D	
1	16.610	STR-I	POS.	167.8	63.0	D	
1	17.588	STR-I	POS.	167.8	45.5	D	
1	18.565	STR-I	POS.	167.8	24.7	D	
1	19.542	STR-I	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

- A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1
- B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2
- C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
- E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
- F. Discretely braced tension flange governs (App A 6.1.2)
- G. Continuously braced compression flange governs (App A 6.1.3)
- H. Continuously braced tension flange governs (App A 6.1.4)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	Cb*	Lr* (ft)	Appendix A Cb*	Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.301	18.66	1.301	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

6.10.8.2.3												
Appendix A												
Factored Effects Code												
Flexural Resistance												
Flexural Resistance												
Span			Limit		Local	*	Governing	*	Local	*	Governing	*
No.	Dist.	T/B	State	Flx	Fr		Mr(e)**		Mr		Mr	
	(ft)				(ksi)		(kip-ft)		(kip-ft)		(kip-ft)	
1	0.000	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.
1	0.977	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.
1	1.954	TOP	STR-I	P	-30.0	B	140.	-30.0	B	168.	E	168.
												</

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	2.931	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	3.908	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	4.885	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	5.863	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	6.840	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	7.817	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	8.794	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	9.771L	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	9.771R	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	10.748	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	11.725	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	12.702	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	13.679	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	14.656	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	15.633	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	16.610	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	17.588	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	18.565	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	
1	19.542	TOP	STR-I	P	-30.0	B	140.	-30.0	168.	E	168.	E	N/A	119.	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	89.44	61.78	U	
1	0.977	STR-I	89.44	57.28	U	
1	1.954	STR-I	89.44	52.78	U	
1	2.931	STR-I	89.44	48.55	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-I	89.44	44.74	U	
1	4.885	STR-I	89.44	40.93	U	
1	5.863	STR-I	89.44	37.12	U	
1	6.840	STR-I	89.44	33.31	U	
1	7.817	STR-I	89.44	29.49	U	
1	8.794	STR-I	89.44	25.68	U	
1	9.771L	STR-I	89.44	21.87	U	
1	9.771R	STR-I	89.44	21.87	U	
1	10.748	STR-I	89.44	-25.68	U	
1	11.725	STR-I	89.44	-29.49	U	
1	12.702	STR-I	89.44	-33.31	U	
1	13.679	STR-I	89.44	-37.12	U	
1	14.656	STR-I	89.44	-40.93	U	
1	15.633	STR-I	89.44	-44.74	U	
1	16.610	STR-I	89.44	-48.55	U	
1	17.588	STR-I	89.44	-52.78	U	
1	18.565	STR-I	89.44	-57.28	U	
1	19.542	STR-I	89.44	-61.78	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.436	54.5	1	0.000	STR-I
	Shear		1.456	55.2	1	0.000	STR-I
	Controlling		1.436	54.5	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	168.	5.	113.	1.436*	
1	1.954	STR-I	POS.	168.	5.	113.	1.436*	
1	2.931	STR-I	POS.	168.	5.	113.	1.436*	
1	3.908	STR-I	POS.	168.	5.	113.	1.436*	
1	4.885	STR-I	POS.	168.	5.	113.	1.436*	
1	5.863	STR-I	POS.	168.	5.	113.	1.436*	
1	6.840	STR-I	POS.	168.	5.	113.	1.436*	
1	7.817	STR-I	POS.	168.	5.	113.	1.436*	
1	8.794	STR-I	POS.	168.	5.	113.	1.436*	
1	9.771L	STR-I	POS.	168.	5.	113.	1.436	
1	9.771R	STR-I	POS.	168.	5.	113.	1.436	
1	10.748	STR-I	POS.	168.	5.	113.	1.436*	
1	11.725	STR-I	POS.	168.	5.	113.	1.436*	
1	12.702	STR-I	POS.	168.	5.	113.	1.436*	
1	13.679	STR-I	POS.	168.	5.	113.	1.436*	
1	14.656	STR-I	POS.	168.	5.	113.	1.436*	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #2 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	168.	5.	113.	1.436*	
1	16.610	STR-I	POS.	168.	5.	113.	1.436*	
1	17.588	STR-I	POS.	168.	5.	113.	1.436*	
1	18.565	STR-I	POS.	168.	5.	113.	1.436*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	60.69	1.456	
1	0.977	STR-I	POS.	89.44	0.98	56.30	1.571	
1	1.954	STR-I	POS.	89.44	0.87	51.90	1.706	
1	2.931	STR-I	POS.	89.44	0.77	47.79	1.855	
1	3.908	STR-I	POS.	89.44	0.66	44.09	2.014	
1	4.885	STR-I	POS.	89.44	0.55	40.38	2.201	
1	5.863	STR-I	POS.	89.44	0.44	36.68	2.426	
1	6.840	STR-I	POS.	89.44	0.33	32.98	2.702	
1	7.817	STR-I	POS.	89.44	0.22	29.27	3.048	
1	8.794	STR-I	POS.	89.44	0.11	25.57	3.493	
1	9.771L	STR-I	POS.	89.44	0.00	21.87	4.090	
1	9.771R	STR-I	POS.	89.44	0.00	21.87	4.090	
1	10.748	STR-I	NEG.	89.44	-0.11	-25.57	3.493	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #2 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-29.27	3.048	
1	12.702	STR-I	NEG.	89.44	-0.33	-32.98	2.702	
1	13.679	STR-I	NEG.	89.44	-0.44	-36.68	2.426	
1	14.656	STR-I	NEG.	89.44	-0.55	-40.38	2.201	
1	15.633	STR-I	NEG.	89.44	-0.66	-44.09	2.014	
1	16.610	STR-I	NEG.	89.44	-0.77	-47.79	1.855	
1	17.588	STR-I	NEG.	89.44	-0.87	-51.90	1.706	
1	18.565	STR-I	NEG.	89.44	-0.98	-56.30	1.571	
1	19.542	STR-I	NEG.	89.44	-1.09	-60.69	1.456	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.6	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.8	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.7	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.3	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.3	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.3	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-13.1	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	13.1	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-12.7	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	12.7	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Inst* (ksi)	Total DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-11.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	11.8	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-10.9	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	10.9	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-9.5	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	9.5	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-7.8	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	7.8	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-5.6	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	5.6	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-3.0	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	3.0	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	53.27	N/A*	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	21.5	49.72	N/A*	-4.60	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	40.0	46.18	N/A*	-8.56	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	55.5	42.63	N/A*	-11.88	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	68.0	39.09	N/A*	-14.56	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	77.5	35.54	N/A*	-16.60	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	84.7	32.25	N/A*	-18.13	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	90.6	29.48	N/A*	-19.40	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	94.2	26.71	N/A*	-20.16	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	95.4	23.94	N/A*	-20.42	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	94.3	21.17	N/A*	-20.18	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	94.3	21.17	N/A*	-20.18	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	95.4	-23.94	N/A*	-20.42	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	94.2	-26.71	N/A*	-20.16	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	90.6	-29.48	N/A*	-19.40	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	84.7	-32.25	N/A*	-18.13	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	77.5	-35.54	N/A*	-16.60	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	68.0	-39.09	N/A*	-14.56	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	55.5	-42.63	N/A*	-11.88	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	40.0	-46.18	N/A*	-8.56	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	21.5	-49.72	N/A*	-4.60	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-53.27	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	21.5	D	
1	1.954	STR-I	POS.	167.8	40.0	D	
1	2.931	STR-I	POS.	167.8	55.5	D	
1	3.908	STR-I	POS.	167.8	68.0	D	
1	4.885	STR-I	POS.	167.8	77.5	D	
1	5.863	STR-I	POS.	167.8	84.7	D	
1	6.840	STR-I	POS.	167.8	90.6	D	
1	7.817	STR-I	POS.	167.8	94.2	D	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	8.794	STR-I	POS.	167.8	95.4	D	
1	9.771L	STR-I	POS.	167.8	94.3	D	
1	9.771R	STR-I	POS.	167.8	94.3	D	
1	10.748	STR-I	POS.	167.8	95.4	D	
1	11.725	STR-I	POS.	167.8	94.2	D	
1	12.702	STR-I	POS.	167.8	90.6	D	
1	13.679	STR-I	POS.	167.8	84.7	D	
1	14.656	STR-I	POS.	167.8	77.5	D	
1	15.633	STR-I	POS.	167.8	68.0	D	
1	16.610	STR-I	POS.	167.8	55.5	D	
1	17.588	STR-I	POS.	167.8	40.0	D	
1	18.565	STR-I	POS.	167.8	21.5	D	
1	19.542	STR-I	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, Mn calculated using A6.10.7.1.2-2

C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*		Lr* (ft)	Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.198	18.66	1.198	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Local Fr (ksi)	6.10.8.2.3 Governing Mr(e)** (kip-ft)	6.10.8.2.3 Fr (ksi)	Appendix A Flexural Resistance Local Mr (kip-ft)	Appendix A Governing Mr (kip-ft)	Factored Flexural Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-29.3 B	137.	-29.3 B	167. E	167. E	N/A	95.	
1	0.977	TOP	STR-I	P	-29.3 B	137.	-29.3 B	167. E	167. E	N/A	95.	
1	1.954	TOP	STR-I	P	-29.3 B	137.	-29.3 B	167. E	167. E	N/A	95.	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Lateral Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	2.931	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	3.908	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	4.885	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	5.863	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	6.840	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	7.817	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	8.794	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	9.771L	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	9.771R	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	10.748	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	11.725	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	12.702	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	13.679	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	14.656	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	15.633	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	16.610	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	17.588	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	18.565	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	
1	19.542	TOP	STR-I	P	-29.3	B	137.	-29.3	167.	E	167.	E	N/A	95.	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. F_r calculated using AASHTO Equation 6.10.8.2.3-1

B. F_r calculated using AASHTO Equation 6.10.8.2.3-2

C. F_r calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. M_r calculated using AASHTO Equation A6.3.3-1

E. M_r calculated using AASHTO Equation A6.3.3-2

F. M_r calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

$M_r(e)$ = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, F_r

F_+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F_+ prints as N/A, Appendix A calculations govern the LTB capacity

M_+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M_+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F_+ or M_+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance V_r (kips)	Maximum Factored Shear V_u (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	89.44	53.27	U	
1	0.977	STR-I	89.44	49.72	U	
1	1.954	STR-I	89.44	46.18	U	
1	2.931	STR-I	89.44	42.63	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-I	89.44	39.09	U	
1	4.885	STR-I	89.44	35.54	U	
1	5.863	STR-I	89.44	32.25	U	
1	6.840	STR-I	89.44	29.48	U	
1	7.817	STR-I	89.44	26.71	U	
1	8.794	STR-I	89.44	23.94	U	
1	9.771L	STR-I	89.44	21.17	U	
1	9.771R	STR-I	89.44	21.17	U	
1	10.748	STR-I	89.44	-23.94	U	
1	11.725	STR-I	89.44	-26.71	U	
1	12.702	STR-I	89.44	-29.48	U	
1	13.679	STR-I	89.44	-32.25	U	
1	14.656	STR-I	89.44	-35.54	U	
1	15.633	STR-I	89.44	-39.09	U	
1	16.610	STR-I	89.44	-42.63	U	
1	17.588	STR-I	89.44	-46.18	U	
1	18.565	STR-I	89.44	-49.72	U	
1	19.542	STR-I	89.44	-53.27	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	1.793	53.3	1	1.954	STR-I
	Shear		1.693	50.3	1	0.000	STR-I
	Controlling		1.693	50.3	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	167.	5.	90.	1.793*	
1	1.954	STR-I	POS.	167.	5.	90.	1.793*	
1	2.931	STR-I	POS.	167.	5.	90.	1.793*	
1	3.908	STR-I	POS.	167.	5.	90.	1.793*	
1	4.885	STR-I	POS.	167.	5.	90.	1.793*	
1	5.863	STR-I	POS.	167.	5.	90.	1.793*	
1	6.840	STR-I	POS.	167.	5.	90.	1.793*	
1	7.817	STR-I	POS.	167.	5.	90.	1.793*	
1	8.794	STR-I	POS.	167.	5.	90.	1.793*	
1	9.771L	STR-I	POS.	167.	5.	90.	1.793*	
1	9.771R	STR-I	POS.	167.	5.	90.	1.793*	
1	10.748	STR-I	POS.	167.	5.	90.	1.793*	
1	11.725	STR-I	POS.	167.	5.	90.	1.793*	
1	12.702	STR-I	POS.	167.	5.	90.	1.793*	
1	13.679	STR-I	POS.	167.	5.	90.	1.793*	
1	14.656	STR-I	POS.	167.	5.	90.	1.793*	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #3 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	167.	5.	90.	1.793*	
1	16.610	STR-I	POS.	167.	5.	90.	1.793*	
1	17.588	STR-I	POS.	167.	5.	90.	1.793*	
1	18.565	STR-I	POS.	167.	5.	90.	1.793*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	52.18	1.693	
1	0.977	STR-I	POS.	89.44	0.98	48.74	1.815	
1	1.954	STR-I	POS.	89.44	0.87	45.30	1.955	
1	2.931	STR-I	POS.	89.44	0.77	41.87	2.118	
1	3.908	STR-I	POS.	89.44	0.66	38.43	2.310	
1	4.885	STR-I	POS.	89.44	0.55	34.99	2.540	
1	5.863	STR-I	POS.	89.44	0.44	31.81	2.798	
1	6.840	STR-I	POS.	89.44	0.33	29.15	3.057	
1	7.817	STR-I	POS.	89.44	0.22	26.49	3.368	
1	8.794	STR-I	POS.	89.44	0.11	23.83	3.749	
1	9.771L	STR-I	POS.	89.44	0.00	21.17	4.225	
1	9.771R	STR-I	POS.	89.44	0.00	21.17	4.225	
1	10.748	STR-I	NEG.	89.44	-0.11	-23.83	3.749	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #3 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-26.49	3.368	
1	12.702	STR-I	NEG.	89.44	-0.33	-29.15	3.057	
1	13.679	STR-I	NEG.	89.44	-0.44	-31.81	2.798	
1	14.656	STR-I	NEG.	89.44	-0.55	-34.99	2.540	
1	15.633	STR-I	NEG.	89.44	-0.66	-38.43	2.310	
1	16.610	STR-I	NEG.	89.44	-0.77	-41.87	2.118	
1	17.588	STR-I	NEG.	89.44	-0.87	-45.30	1.955	
1	18.565	STR-I	NEG.	89.44	-0.98	-48.74	1.815	
1	19.542	STR-I	NEG.	89.44	-1.09	-52.18	1.693	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS

UNFACTORED FLEXURAL STRESSES

Span No.	Dist. (ft)	T/B	Limit State	Flex.	Total	DC1 Deck Pour*	MC1	DC2	FWS	MC2	LL	PL
					Inst* (ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)	(ksi)
1	0.000	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
1	0.977	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.1	0.0
1	1.954	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	2.931	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	5.4	0.0
1	3.908	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-6.7	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	6.7	0.0
1	4.885	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.6	0.0
1	5.863	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.4	0.0
1	6.840	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.8	0.0
1	7.817	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-9.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	9.0	0.0
1	8.794	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	9.771L	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.7	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.7	0.0
1	9.771R	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.7	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.7	0.0
1	10.748	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-8.9	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	8.9	0.0
1	11.725	TOP	STR-I	POS.	-0.9	N/A	0.0	0.0	0.0	0.0	-9.0	0.0
		BOT	STR-I	POS.	0.9	N/A	0.0	0.0	0.0	0.0	9.0	0.0
1	12.702	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.8	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.8	0.0

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

UNFACTORED FLEXURAL STRESSES (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flex. POS.	Total Inst* (ksi)	DC1 Deck Pour* (ksi)	MC1 (ksi)	DC2 (ksi)	FWS (ksi)	MC2 (ksi)	LL (ksi)	PL (ksi)
1	13.679	TOP	STR-I	POS.	-0.8	N/A	0.0	0.0	0.0	0.0	-8.4	0.0
		BOT	STR-I	POS.	0.8	N/A	0.0	0.0	0.0	0.0	8.4	0.0
1	14.656	TOP	STR-I	POS.	-0.7	N/A	0.0	0.0	0.0	0.0	-7.6	0.0
		BOT	STR-I	POS.	0.7	N/A	0.0	0.0	0.0	0.0	7.6	0.0
1	15.633	TOP	STR-I	POS.	-0.6	N/A	0.0	0.0	0.0	0.0	-6.7	0.0
		BOT	STR-I	POS.	0.6	N/A	0.0	0.0	0.0	0.0	6.7	0.0
1	16.610	TOP	STR-I	POS.	-0.5	N/A	0.0	0.0	0.0	0.0	-5.4	0.0
		BOT	STR-I	POS.	0.5	N/A	0.0	0.0	0.0	0.0	5.4	0.0
1	17.588	TOP	STR-I	POS.	-0.3	N/A	0.0	0.0	0.0	0.0	-3.9	0.0
		BOT	STR-I	POS.	0.3	N/A	0.0	0.0	0.0	0.0	3.9	0.0
1	18.565	TOP	STR-I	POS.	-0.2	N/A	0.0	0.0	0.0	0.0	-2.1	0.0
		BOT	STR-I	POS.	0.2	N/A	0.0	0.0	0.0	0.0	2.1	0.0
1	19.542	TOP	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0
		BOT	STR-I	POS.	0.0	N/A	0.0	0.0	0.0	0.0	0.0	0.0

* Legend of General Notes:

TOTAL DC1 INST = the total DC1 stress assuming instantaneous placement of the deck slab and haunch.

TOTAL DC1 DECK POUR = the total DC1 stress at the end of the deck pour analysis.

When computing the total factored stress, STLRFD uses the total DC1 stress (either instantaneous or deck pour) that causes the largest stress in the flanges.

USER INPUT LATERAL STRESSES

This output report is not applicable because no user input lateral loads have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS

Span No.	Dist. (ft)	Limit State	Flex.	Max. Moment (k-ft)	Max. Shear (kips)	Bot. Bm. (ksi)	Top Bm. (ksi)	Flexural Stress* Top S/R (ksi)	Compress. 0.6*f' _c (ksi)	Limits* 0.85*f' _c (ksi)	Code Chk**
1	0.000	STR-I	POS.	0.0	36.55	N/A*	0.00	0.00	N/A**	N/A**	
1	0.977	STR-I	POS.	15.0	34.28	N/A*	-3.21	0.00	N/A**	N/A**	
1	1.954	STR-I	POS.	28.1	32.01	N/A*	-6.01	0.00	N/A**	N/A**	
1	2.931	STR-I	POS.	39.2	29.73	N/A*	-8.40	0.00	N/A**	N/A**	
1	3.908	STR-I	POS.	48.5	27.46	N/A*	-10.38	0.00	N/A**	N/A**	
1	4.885	STR-I	POS.	55.8	25.19	N/A*	-11.94	0.00	N/A**	N/A**	
1	5.863	STR-I	POS.	61.1	22.91	N/A*	-13.09	0.00	N/A**	N/A**	
1	6.840	STR-I	POS.	64.6	20.64	N/A*	-13.83	0.00	N/A**	N/A**	
1	7.817	STR-I	POS.	66.1	18.37	N/A*	-14.16	0.00	N/A**	N/A**	
1	8.794	STR-I	POS.	65.7	16.09	N/A*	-14.07	0.00	N/A**	N/A**	
1	9.771L	STR-I	POS.	64.2	14.00	N/A*	-13.74	0.00	N/A**	N/A**	
1	9.771R	STR-I	POS.	64.2	14.00	N/A*	-13.74	0.00	N/A**	N/A**	
1	10.748	STR-I	POS.	65.7	-16.09	N/A*	-14.07	0.00	N/A**	N/A**	
1	11.725	STR-I	POS.	66.1	-18.37	N/A*	-14.16	0.00	N/A**	N/A**	
1	12.702	STR-I	POS.	64.6	-20.64	N/A*	-13.83	0.00	N/A**	N/A**	
1	13.679	STR-I	POS.	61.1	-22.91	N/A*	-13.09	0.00	N/A**	N/A**	
1	14.656	STR-I	POS.	55.8	-25.19	N/A*	-11.94	0.00	N/A**	N/A**	
1	15.633	STR-I	POS.	48.5	-27.46	N/A*	-10.38	0.00	N/A**	N/A**	
1	16.610	STR-I	POS.	39.2	-29.73	N/A*	-8.40	0.00	N/A**	N/A**	
1	17.588	STR-I	POS.	28.1	-32.01	N/A*	-6.01	0.00	N/A**	N/A**	
1	18.565	STR-I	POS.	15.0	-34.28	N/A*	-3.21	0.00	N/A**	N/A**	
1	19.542	STR-I	POS.	0.0	-36.55	N/A*	0.00	0.00	N/A**	N/A**	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - ANALYSIS (cont.)

FACTORED ANALYSIS RESULTS (cont.)

* Legend of General Notes:

N/A* = Since the flexural capacity at this analysis point, limit state, flexure state and flange is moment-governed, the total factored flexural stress is not used for any specification checks and therefore is not applicable.

N/A** = This check is not required or not applicable at this analysis point, limit state, and flexure state.

FACTORED LATERAL STRESSES

This output report is not applicable because no lateral loads (wind or user input lateral loads) have been entered.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

Span No.	Dist. (ft)	Limit State	Flex.	Dp* (in)	Dt* (in)	Rh*	Rpc*	Rpt*	Dc* (in)	Myt (kip-ft)	Myb (kip-ft)	Resist. Calc.**
1	0.000	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	0.977	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	1.954	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	2.931	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	3.908	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	4.885	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	5.863	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	6.840	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	7.817	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	8.794	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771L	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	9.771R	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	10.748	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	11.725	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	12.702	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	13.679	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	14.656	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	15.633	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	16.610	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	17.588	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	18.565	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D
1	19.542	STR-I	POS.	N/A	N/A	1.000	1.198	1.198	6.9	140.1	140.1	D

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS (cont.)

* Legend of General Notes:

- Dp = Distance from top of concrete deck to neutral axis of the composite section at the plastic moment (A6.10.7.1.2)
Dt = Total depth of the composite section (A6.10.7.1.2)
Rh = Hybrid factor (A6.10.1.10.1)
Rpc = Web plastification factor for the compression flange (App A A6.2.1-4 or A6.2.2-4)
Rpt = Web plastification factor for the tension flange (App A A6.2.1-5 or A6.2.2-5)
Dc = Total depth of the web in compression, per Appendix D6.3.1
Myt = Yield moment to the top flange, per Appendix D6.2
Myb = Yield moment to the bottom flange, per Appendix D6.2

** Legend of Resistance Calculation:

Compact Section:

- A. $Dp \leq 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-1
B. $Dp > 0.1 \cdot Dt$, Mn calculated using A6.10.7.1.2-2
C. Continuous span, Mn calculated using A6.10.7.1.2-3

Appendix A:

- D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)
E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)
F. Discretely braced tension flange governs (App A A6.1.2)
G. Continuously braced compression flange governs (App A A6.1.3)
H. Continuously braced tension flange governs (App A A6.1.4)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	0.000	STR-I	POS.	167.8	0.0	D	
1	0.977	STR-I	POS.	167.8	15.0	D	
1	1.954	STR-I	POS.	167.8	28.1	D	
1	2.931	STR-I	POS.	167.8	39.2	D	
1	3.908	STR-I	POS.	167.8	48.5	D	
1	4.885	STR-I	POS.	167.8	55.8	D	
1	5.863	STR-I	POS.	167.8	61.1	D	
1	6.840	STR-I	POS.	167.8	64.6	D	
1	7.817	STR-I	POS.	167.8	66.1	D	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

 MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Flexural Resistance Mr (kip-ft)	Factored Flexural +Lateral Moment M+* (kip-ft)	Resistance Calculation **	Code Check ***
1	8.794	STR-I	POS.	167.8	65.7	D	
1	9.771L	STR-I	POS.	167.8	64.2	D	
1	9.771R	STR-I	POS.	167.8	64.2	D	
1	10.748	STR-I	POS.	167.8	65.7	D	
1	11.725	STR-I	POS.	167.8	66.1	D	
1	12.702	STR-I	POS.	167.8	64.6	D	
1	13.679	STR-I	POS.	167.8	61.1	D	
1	14.656	STR-I	POS.	167.8	55.8	D	
1	15.633	STR-I	POS.	167.8	48.5	D	
1	16.610	STR-I	POS.	167.8	39.2	D	
1	17.588	STR-I	POS.	167.8	28.1	D	
1	18.565	STR-I	POS.	167.8	15.0	D	
1	19.542	STR-I	POS.	167.8	0.0	D	

* Legend of General Notes:

NOTE: Intermediate values have been moved to a separate output report,
 INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to
 wind or user input effects, A6.10.7.1.1-1

w = Value for M+ includes lateral load effects

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB) (cont.)

** Legend of Resistance Calculation:

Compact Section:

A. $D_p \leq 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-1

B. $D_p > 0.1 \cdot D_t$, M_n calculated using A6.10.7.1.2-2

C. Continuous span, M_n calculated using A6.10.7.1.2-3

Appendix A:

D. Discretely braced compression flange, local buckling governs (App A A6.3.2-1)

E. Discretely braced compression flange, local buckling governs (App A A6.3.2-2)

F. Discretely braced tension flange governs (App A 6.1.2)

G. Continuously braced compression flange governs (App A 6.1.3)

H. Continuously braced tension flange governs (App A 6.1.4)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* Cb*		Lr* (ft)	Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	0.000	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	0.977	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	1.954	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	2.931	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	3.908	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	4.885	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	5.863	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	6.840	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	7.817	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	8.794	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	9.771L	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	9.771R	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	10.748	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	11.725	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	12.702	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	13.679	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	rt* (in)	Rh*	Rb*	Dc* (in)	Lp* (ft)	6.10.8.2.3 Lr* (ft)	6.10.8.2.3 Cb*	Lr* (ft)	Appendix A Cb*	Appendix A Myc* (kip-ft)	Rpc*
1	14.656	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	15.633	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	16.610	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	17.588	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	18.565	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198
1	19.542	TOP	STR-I	P	1.4	1.000	1.000	6.9	3.62	13.60	1.138	18.66	1.138	140.1	1.198

* Legend of General Notes:

Values that are the same for Article 6.10.8.2.3 and Appendix A

rt = Effective radius of gyration for lateral torsional buckling
(Equations 6.10.8.2.3-9 or A6.3.3-10)

Rh = Hybrid factor (Article 6.10.1.10.1)

Rb = Load shedding factor (Article 6.10.1.10.2)

Dc = Depth of the web in compression (Article D6.3.1)

Lp = Limiting unbraced length to achieve the nominal flexural resistance of RbRhFyc under uniform bending (Equations 6.10.8.2.3-4 or A6.3.3-4)

Values that are different for Article 6.10.8.2.3 and Appendix A

Lr = Limiting unbraced length to achieve the onset of nominal yielding in either flange under uniform bending with consideration of compression-flange residual stress effects (Equations 6.10.8.2.3-5 or A6.3.3-5)

Cb = Moment gradient modifier

(Equations A6.10.8.2.3-6, A6.10.8.2.3-7, A6.3.3-6, or A6.3.3-7)

Values that are specific to Appendix A

Myc = Yield moment with respect to the compression flange (Article D6.2)

Rpc = Web plastification factor for the compression flange
(Article A6.2.1 or A6.2.2)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance Local Fr (ksi)	6.10.8.2.3 Governing Mr(e)** (kip-ft)	6.10.8.2.3 Fr (ksi)	Appendix A Flexural Resistance Local Mr (kip-ft)	Appendix A Governing Mr (kip-ft)	Factored Flexural Stress F+** (ksi)	Effects +Lateral Moment M+** (kip-ft)	Code Chk ***
1	0.000	TOP	STR-I	P	-27.8 B	130.	-27.8 B	159. E	159. E	N/A	66.	
1	0.977	TOP	STR-I	P	-27.8 B	130.	-27.8 B	159. E	159. E	N/A	66.	
1	1.954	TOP	STR-I	P	-27.8 B	130.	-27.8 B	159. E	159. E	N/A	66.	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

Span No.	Dist. (ft)	T/B	Limit State	Flx	6.10.8.2.3 Flexural Resistance				Appendix A Flexural Resistance				Factored Stress F+*** (ksi)	Effects Moment M+*** (kip-ft)	Code Chk ***
					Local Fr (ksi)	* B	Governing Mr(e)** (kip-ft)	* Fr (ksi)	Local Mr (kip-ft)	* B	Governing Mr (kip-ft)	* B			
1	2.931	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	3.908	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	4.885	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	5.863	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	6.840	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	7.817	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	8.794	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	9.771L	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	9.771R	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	10.748	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	11.725	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	12.702	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	13.679	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	14.656	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	15.633	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	16.610	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	17.588	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	18.565	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	
1	19.542	TOP	STR-I	P	-27.8	B	130.	-27.8	159.	E	159.	E	N/A	66.	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - SPECIFICATION CHECKING (cont.)

LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE) (cont.)

* Legend of Resistance Calculation:

LRFD Specifications Article 6.10.8.2.3

A. Fr calculated using AASHTO Equation 6.10.8.2.3-1

B. Fr calculated using AASHTO Equation 6.10.8.2.3-2

C. Fr calculated using AASHTO Equation 6.10.8.2.3-3

LRFD Specifications Chapter 6, Appendix A

D. Mr calculated using AASHTO Equation A6.3.3-1

E. Mr calculated using AASHTO Equation A6.3.3-2

F. Mr calculated using AASHTO Equation A6.3.3-3

G. Girder skew angle has not been entered. Appendix A provisions have not been checked, but may be applicable

H. Appendix A provisions are not applicable at this location

** Legend of General Notes:

Mr(e) = Flexural resistance in terms of moment, back-calculated from
from the stress flexural resistance, Fr

F+ = $f_{bu} + (1/3) \cdot f_l$, total factored flexural + lateral stress due to wind (per
A6.10.7.2.1-2, A6.10.8.1.1-1, or A6.10.8.1.2-1) and/or user input lateral effects
If F+ prints as N/A, Appendix A calculations govern the LTB capacity

M+ = $M_u + (1/3) \cdot f_l \cdot S_{xt}$, total factored flexural + lateral moment due to wind or user
input effects, A6.10.7.1.1-1

If M+ prints as N/A, 6.10.8.2.3 calculations govern the LTB capacity

w = Value for F+ or M+ includes lateral load effects

FLANGE LATERAL CAPACITY

This output report is not applicable because no lateral loads
(wind or user input lateral loads) have been entered.

NET SECTION FRACTURE CHECK

Not applicable due to absence of section holes

SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	0.000	STR-I	89.44	36.55	U	
1	0.977	STR-I	89.44	34.28	U	
1	1.954	STR-I	89.44	32.01	U	
1	2.931	STR-I	89.44	29.73	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - SPECIFICATION CHECKING (cont.)

 SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Factored Shear Resistance Vr (kips)	Maximum Factored Shear Vu (kips)	Stiffened/ Unstiffened	Code Check*
1	3.908	STR-I	89.44	27.46	U	
1	4.885	STR-I	89.44	25.19	U	
1	5.863	STR-I	89.44	22.91	U	
1	6.840	STR-I	89.44	20.64	U	
1	7.817	STR-I	89.44	18.37	U	
1	8.794	STR-I	89.44	16.09	U	
1	9.771L	STR-I	89.44	14.00	U	
1	9.771R	STR-I	89.44	14.00	U	
1	10.748	STR-I	89.44	-16.09	U	
1	11.725	STR-I	89.44	-18.37	U	
1	12.702	STR-I	89.44	-20.64	U	
1	13.679	STR-I	89.44	-22.91	U	
1	14.656	STR-I	89.44	-25.19	U	
1	15.633	STR-I	89.44	-27.46	U	
1	16.610	STR-I	89.44	-29.73	U	
1	17.588	STR-I	89.44	-32.01	U	
1	18.565	STR-I	89.44	-34.28	U	
1	19.542	STR-I	89.44	-36.55	U	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS

RATING FACTORS - SUMMARY

	Basis of Rating	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
Inventory	Flexure	T	2.515	47.0	1	0.000	STR-I
	Shear		2.491	46.6	1	0.000	STR-I
	Controlling		2.491	46.6	1	0.000	STR-I
Operating	Not Applicable						

RATING FACTORS - MOMENT FLEXURAL CAPACITY

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	0.977	STR-I	POS.	159.	5.	61.	2.515*	
1	1.954	STR-I	POS.	159.	5.	61.	2.515*	
1	2.931	STR-I	POS.	159.	5.	61.	2.515*	
1	3.908	STR-I	POS.	159.	5.	61.	2.515*	
1	4.885	STR-I	POS.	159.	5.	61.	2.515*	
1	5.863	STR-I	POS.	159.	5.	61.	2.515*	
1	6.840	STR-I	POS.	159.	5.	61.	2.515*	
1	7.817	STR-I	POS.	159.	5.	61.	2.515*	
1	8.794	STR-I	POS.	159.	5.	61.	2.515*	
1	9.771L	STR-I	POS.	159.	5.	61.	2.515*	
1	9.771R	STR-I	POS.	159.	5.	61.	2.515*	
1	10.748	STR-I	POS.	159.	5.	61.	2.515*	
1	11.725	STR-I	POS.	159.	5.	61.	2.515*	
1	12.702	STR-I	POS.	159.	5.	61.	2.515*	
1	13.679	STR-I	POS.	159.	5.	61.	2.515*	
1	14.656	STR-I	POS.	159.	5.	61.	2.515*	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SPECIAL #4 - RATINGS W/O FWS (cont.)

RATING FACTORS - MOMENT FLEXURAL CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Flex.	Resist. Moment Mr (k-ft)	Total DL Moment (k-ft)	Total LL Moment (k-ft)	Rating Factor	Rating Failures**
1	15.633	STR-I	POS.	159.	5.	61.	2.515*	
1	16.610	STR-I	POS.	159.	5.	61.	2.515*	
1	17.588	STR-I	POS.	159.	5.	61.	2.515*	
1	18.565	STR-I	POS.	159.	5.	61.	2.515*	

* An asterisk following the rating factor indicates that the rating is governed by lateral torsional buckling.

RATING FACTORS - SHEAR CAPACITY

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	0.000	STR-I	POS.	89.44	1.09	35.46	2.491	
1	0.977	STR-I	POS.	89.44	0.98	33.30	2.657	
1	1.954	STR-I	POS.	89.44	0.87	31.13	2.845	
1	2.931	STR-I	POS.	89.44	0.77	28.97	3.061	
1	3.908	STR-I	POS.	89.44	0.66	26.80	3.312	
1	4.885	STR-I	POS.	89.44	0.55	24.64	3.607	
1	5.863	STR-I	POS.	89.44	0.44	22.48	3.960	
1	6.840	STR-I	POS.	89.44	0.33	20.31	4.387	
1	7.817	STR-I	POS.	89.44	0.22	18.15	4.916	
1	8.794	STR-I	POS.	89.44	0.11	15.99	5.588	
1	9.771L	STR-I	POS.	89.44	0.00	14.00	6.388	
1	9.771R	STR-I	POS.	89.44	0.00	14.00	6.388	
1	10.748	STR-I	NEG.	89.44	-0.11	-15.99	5.588	

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SPECIAL #4 - RATINGS W/O FWS (cont.)

 RATING FACTORS - SHEAR CAPACITY (cont.)

Span No.	Dist. (ft)	Limit State	Shear	Resist. Shear Vr (kips)	Total DL Shear (kips)	Total LL Shear (kips)	Rating Factor	Rating Failure*
1	11.725	STR-I	NEG.	89.44	-0.22	-18.15	4.916	
1	12.702	STR-I	NEG.	89.44	-0.33	-20.31	4.387	
1	13.679	STR-I	NEG.	89.44	-0.44	-22.48	3.960	
1	14.656	STR-I	NEG.	89.44	-0.55	-24.64	3.607	
1	15.633	STR-I	NEG.	89.44	-0.66	-26.80	3.312	
1	16.610	STR-I	NEG.	89.44	-0.77	-28.97	3.061	
1	17.588	STR-I	NEG.	89.44	-0.87	-31.13	2.845	
1	18.565	STR-I	NEG.	89.44	-0.98	-33.30	2.657	
1	19.542	STR-I	NEG.	89.44	-1.09	-35.46	2.491	

Madawaska Minor Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, W/ DISTRIBUTION)
FOR ELASTOMERIC BEARING PAD DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Live Load Rotation LC (radians)
1	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027
2	Total DC1	0.87	0.87	
	Total DL	0.87	0.87	
	LL (SPECIAL #1)	0.00	25.40	0.002906
	LL (SPECIAL #2)	0.00	31.47	0.003931
	LL (SPECIAL #3)	0.00	27.06	0.003087
	LL (SPECIAL #4)	0.00	18.39	0.002027

Note: Rotation is about an axis normal to the centerline of the beam.
The rotation value given is the larger of the positive
rotation and absolute value of the negative rotation due
to live load.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, W/ DISTRIBUTION)
FOR POT, STEEL OR DISC BEARING DESIGN

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)	Rotation LC (radians)
1	Total DC1	0.87	0.87	-0.000311
	Total DL	0.87	0.87	-0.000311
	LL (SPECIAL #1)	0.00	33.78	-0.003865
	LL (SPECIAL #2)	0.00	41.85	-0.005228
	LL (SPECIAL #3)	0.00	35.98	-0.004106
	LL (SPECIAL #4)	0.00	24.45	-0.002695
2	Total DC1	0.87	0.87	0.000311
	Total DL	0.87	0.87	0.000311
	LL (SPECIAL #1)	0.00	33.78	0.003865
	LL (SPECIAL #2)	0.00	41.85	0.005228
	LL (SPECIAL #3)	0.00	35.98	0.004106
	LL (SPECIAL #4)	0.00	24.45	0.002695

Note: Rotation is about an axis normal to the centerline of the beam.

Madawaska Minor Stringer MaineDOT Trucks 5-8
SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction LC (kips)	Maximum Reaction LC (kips)
1	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65
2	SPECIAL #1	0.00	42.33
	SPECIAL #2	0.00	52.45
	SPECIAL #3	0.00	45.09
	SPECIAL #4	0.00	30.65

Note: These values are to be used only if the end supports are abutments. Do not use these values for the pier design at a discontinuous superstructure.

 Madawaska Minor Stringer MaineDOT Trucks 5-8
 SUMMARY - OVERALL REACTIONS (cont.)

REACTIONS (UNFACTORED) FOR PIER DESIGN

DL REACTIONS (UNFACTORED) PER GIRDER

Support No.		Minimum Reaction (kips)	Maximum Reaction (kips)
1	Total DC1	0.87	0.87
	Total DL	0.87	0.87
2	Total DC1	0.87	0.87
	Total DL	0.87	0.87

LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT)

Support No.		Minimum Reaction Vehicle LC (kips)	Minimum Reaction Lane LC (kips)	Maximum Reaction Vehicle LC (kips)	Maximum Reaction Lane LC (kips)
1	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	
2	SPECIAL #1	0.00		42.33	
	SPECIAL #2	0.00		52.45	
	SPECIAL #3	0.00		45.09	
	SPECIAL #4	0.00		30.65	

Note: Impact must be added for pier cap design

Madawaska Minor Stringer MaineDOT Trucks 5-8
 OVERALL RATING SUMMARY W/O FWS

RATING FACTORS - OVERALL SUMMARY W/O FWS

	Governs	T/B	Rating Factor	Rating Tonnage (tons)	Span No.	Dist. (ft)	Limit State
SPECIAL #1							
Inventory Operating	Shear Not Applicable		1.804	79.4	1	0.000	STR-I
SPECIAL #2							
Inventory Operating	Flexure Not Applicable	T	1.436	54.5	1	0.000	STR-I
SPECIAL #3							
Inventory Operating	Shear Not Applicable		1.693	50.3	1	0.000	STR-I
SPECIAL #4							
Inventory Operating	Shear Not Applicable		2.491	46.6	1	0.000	STR-I

BRIDGE LOAD RATINGS W/O FWS

Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
INVENTORY RATING (IR)	Dist. Fact.	0.600	0.258	0.600	0.600
	Loc. (ft)	0.000	0.000	0.000	0.000
	Limit State	STR-I	STR-I	STR-I	STR-I
	RF	1.80S	1.44M	1.69S	2.49S
Span 1	Beam Type and Size: STEEL PLATE GIRDER 14. inches				
		SPECIAL #1	SPECIAL #2	SPECIAL #3	SPECIAL #4
OPERATING RATING (OR)	Dist. Fact.	---	---	---	---
	Loc. (ft)	---	---	---	---
	Limit State	---	---	---	---
	RF	---	---	---	---
Maximum Factored Flexural Resistance (kip-ft)					167.83
Location (ft)					2.93
Maximum Factored Shear Resistance (kips)					89.44
Location (ft)					0.00
					Span Length(ft) = 19.54

Madawaska Minor Stringer MaineDOT Trucks 5-8
OVERALL RATING SUMMARY W/O FWS (cont.)

BRIDGE LOAD RATINGS W/O FWS (cont.)

NOTES:

GIVEN DISTRIBUTION FACTOR IS THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR USED TO PRODUCE THE GIVEN RATING. FOR THE STR-IP LIMIT STATE, THE VEHICULAR LIVE LOAD DISTRIBUTION FACTOR ACCOUNTS FOR THE PRESENCE OF PEDESTRIAN LOADS, IF APPLICABLE.

ALL RATINGS ARE BASED ON THE EXCLUSION OF THE DESIGN FUTURE WEARING SURFACE.

SYMBOL DESIGNATION FOR RATING FACTORS:

M - MOMENT RATING FACTOR CONTROLS

S - SHEAR RATING FACTOR CONTROLS

Madawaska Minor Stringer MaineDOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS

SPECIFICATION CHECK WARNINGS

For the live loadings input by the user, the program encountered one or more specification check warnings. Specification check warnings indicate conditions that do not fail a specification check, but may need to be reviewed by the user. The following is a list of output table headings, listed separately for each live loading for which warnings have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY
ECONOMIC FEASIBILITY CHECKS

SPECIAL #2

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #3

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

SPECIAL #4

WEB-TO-FLANGE WELD DESIGN: WELD CAPACITY

Madawaska Minor Stringer MaineDOT Trucks 5-8
SUMMARY - SPECIFICATION CHECKS (cont.)

SPECIFICATION CHECK FAILURES

For the live loadings input by the user, the program encountered one or more specification check failures. The following is a list of output table headings, listed separately for each live loading for which failures have occurred. It should be noted that the program does not perform specification checking corresponding to commands that have not been input by the user.

SPECIAL #1

BEARING STIFFENER CHECK

SPECIAL #2

BEARING STIFFENER CHECK

SPECIAL #3

BEARING STIFFENER CHECK

SPECIAL #4

BEARING STIFFENER CHECK

 Madawaska Minor Stringer MainedOT Trucks 5-8

Table of Contents

Description	Page
INPUT.....	2
U:\63738 - MainedOT 2017 Ratings\10 - Structures Tasks\Madawaska Bridge\Stringers\5 - Analysis Runs\Stringer Minor MainedOT Trucks 5-8.dat.....	2
INPUT COMMANDS.....	3
CONTROL PARAMETERS.....	11
BEAM GEOMETRY.....	11
USER-DEFINED DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, DESIGN VEHICLE.....	11
USER-DEFINED REACTION DISTRIBUTION FACTORS, FATIGUE VEHICLE.....	12
SKEW ANGLES.....	12
SPAN LENGTHS.....	12
MATERIAL PROPERTIES.....	12
PLATE GIRDER PROPERTIES, PART 1 of 2.....	12
PLATE GIRDER PROPERTIES, PART 2 of 2.....	12
SECTION LOSSES.....	13
SLAB PROPERTIES, PART 1 OF 2.....	13
SLAB PROPERTIES, PART 2 OF 2.....	13
LOAD FACTORS.....	13
DISTRIBUTED LOADS (DC1).....	13
SPECIAL LIVE LOADING.....	14
SPECIAL AXLE LOAD.....	14
BRACE POINTS.....	14
SYSTEM SETTINGS.....	14
SECTION PROPERTIES.....	15
NET SECTION PROPERTIES (NONCOMPOSITE, POSITIVE FLEXURE).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 1).....	15
ADDITIONAL SECTION PROPERTIES (POSITIVE FLEXURE, PART 2).....	16
ANALYSIS.....	17
LOAD FACTORS AND COMBINATIONS.....	17
LIVE LOADING SUMMARY.....	17
LOAD MODIFIER.....	17
RESISTANCE FACTORS.....	18
DEAD LOADS.....	18
DISTRIBUTION FACTORS FOR DESIGN LIVE LOADING (LANE FRACTION, INCL. SKEW).....	18
DISTRIBUTION FACTORS FOR FATIGUE VEHICLE (LANE FRACTION, INCL. SKEW).....	18

DISTRIBUTION FACTORS FOR DESIGN LIVE LOAD REACTIONS.....	19
DISTRIBUTION FACTORS FOR FATIGUE LIVE LOAD REACTIONS.....	19
BEAM WEIGHT ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	19
BEAM WEIGHT ANALYSIS - REACTIONS.....	19
PERMANENT INPUTTED DC1 ANALYSIS (UNFACTORED, DC1, NONCOMPOSITE).....	20
PERMANENT INPUTTED DC1 ANALYSIS - REACTIONS.....	20
TOTAL DC1 ANALYSIS (UNFACTORED, NONCOMPOSITE).....	20
TOTAL DC1 ANALYSIS - REACTIONS.....	21
SPECIAL #1 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	21
SPECIAL #1 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	22
SPECIAL #1 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #1 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	23
SPECIAL #2 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	23
SPECIAL #2 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	24
SPECIAL #2 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	24
SPECIAL #2 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	24
SPECIAL #2 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	25
SPECIAL #3 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	25
SPECIAL #3 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	25
SPECIAL #3 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	26
SPECIAL #3 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #3 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	26
SPECIAL #4 LL ANALYSIS (MOMENTS, UNFACTORED, INCL. IMPACT).....	27
SPECIAL #4 LL ANALYSIS (SHEARS & DEFLECT., UNFACTORED, INCL. IMPACT).....	27
SPECIAL #4 LL ANALYSIS (REACTIONS, INCL. IMPACT & DIST. FACTORS).....	28
SPECIAL #4 LL ANALYSIS (REACTIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #4 LL ANALYSIS (ROTATIONS, W/O IMPACT OR DIST. FACTORS).....	28
SPECIAL #1 - ANALYSIS.....	29
UNFACTORED FLEXURAL STRESSES.....	29
USER INPUT LATERAL STRESSES.....	38
FACTORED ANALYSIS RESULTS.....	38
FACTORED LATERAL STRESSES.....	44
SPECIAL #1 - SPECIFICATION CHECKING.....	45
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	45
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	49
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	53
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	56
FLANGE LATERAL CAPACITY.....	61
NET SECTION FRACTURE CHECK.....	61
SERVICE LIMIT STATE - FLEXURAL RESISTANCE.....	61
SERVICE LIMIT STATE - WEB BEND-BUCKLING.....	65

SHEAR CAPACITY.....	67
SPECIAL #1 - RATINGS W/O FWS.....	72
RATING FACTORS - SUMMARY.....	72
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	72
RATING FACTORS - SHEAR CAPACITY.....	73
SPECIAL #2 - ANALYSIS.....	75
UNFACTORED FLEXURAL STRESSES.....	75
USER INPUT LATERAL STRESSES.....	76
FACTORED ANALYSIS RESULTS.....	77
FACTORED LATERAL STRESSES.....	78
SPECIAL #2 - SPECIFICATION CHECKING.....	79
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	79
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	80
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	82
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	83
FLANGE LATERAL CAPACITY.....	85
NET SECTION FRACTURE CHECK.....	85
SHEAR CAPACITY.....	85
SPECIAL #2 - RATINGS W/O FWS.....	87
RATING FACTORS - SUMMARY.....	87
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	87
RATING FACTORS - SHEAR CAPACITY.....	88
SPECIAL #3 - ANALYSIS.....	90
UNFACTORED FLEXURAL STRESSES.....	90
USER INPUT LATERAL STRESSES.....	91
FACTORED ANALYSIS RESULTS.....	92
FACTORED LATERAL STRESSES.....	93
SPECIAL #3 - SPECIFICATION CHECKING.....	94
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	94
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	95
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	97
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	98
FLANGE LATERAL CAPACITY.....	100
NET SECTION FRACTURE CHECK.....	100
SHEAR CAPACITY.....	100
SPECIAL #3 - RATINGS W/O FWS.....	102
RATING FACTORS - SUMMARY.....	102
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	102
RATING FACTORS - SHEAR CAPACITY.....	103
SPECIAL #4 - ANALYSIS.....	105
UNFACTORED FLEXURAL STRESSES.....	105

USER INPUT LATERAL STRESSES.....	106
FACTORED ANALYSIS RESULTS.....	107
FACTORED LATERAL STRESSES.....	108
SPECIAL #4 - SPECIFICATION CHECKING.....	109
INTERMEDIATE VALUES FOR MOMENT FLEXURAL CAPACITY CALCULATIONS.....	109
MOMENT FLEXURAL CAPACITY (COMPOSITE, +FLEX, COMPACT OR APPENDIX A, NO LTB).....	110
INTERMEDIATE VALUES FOR LATERAL TORSIONAL BUCKLING CALCULATIONS.....	112
LATERAL TORSIONAL BUCKLING CAPACITY (NONCOMPOSITE OR NEGATIVE FLEXURE).....	113
FLANGE LATERAL CAPACITY.....	115
NET SECTION FRACTURE CHECK.....	115
SHEAR CAPACITY.....	115
SPECIAL #4 - RATINGS W/O FWS.....	117
RATING FACTORS - SUMMARY.....	117
RATING FACTORS - MOMENT FLEXURAL CAPACITY.....	117
RATING FACTORS - SHEAR CAPACITY.....	118
SUMMARY - OVERALL REACTIONS.....	120
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/O IMPACT, \$W/ DISTRIBUTION).....	120
REACTIONS & ROTATIONS PER GIRDER (UNFACTORED, W/ IMPACT, \$W/ DISTRIBUTION).....	121
REACTIONS (UNFACTORED) FOR ABUTMENT DESIGN.....	122
DL REACTIONS (UNFACTORED) PER GIRDER.....	122
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	122
REACTIONS (UNFACTORED) FOR PIER DESIGN.....	123
DL REACTIONS (UNFACTORED) PER GIRDER.....	123
LL REACTIONS PER LANE (UNFACTORED, W/O IMPACT).....	123
OVERALL RATING SUMMARY W/O FWS.....	124
RATING FACTORS - OVERALL SUMMARY W/O FWS.....	124
BRIDGE LOAD RATINGS W/O FWS.....	124
SUMMARY - SPECIFICATION CHECKS.....	126
SPECIFICATION CHECK WARNINGS.....	126
SPECIFICATION CHECK FAILURES.....	127

BRIDGE PHOTOGRAPHS

(Excerpts from 2017 HNTB Inspection)

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 1: East Elevation, Looking Southwest. Note paper process pipes for the Twin Rivers Paper Company along east truss, cracks with efflorescence in pierwalls and rock aggradation along embankment.



Photo 2: West Elevation, Looking South. Note span 1 over railroad tracks, "At-Bridge" vertical clearance sign and conduits/abandoned pipe along west truss.

CITY/TOWN
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WIN
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8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 7: Typical Top of Deck at Pier 2, Looking South into Span 3. Note curbs with tire scrapes and failed paint system.



Photo 8: Underside of Span 1 near North Abutment, Looking South. Note areas of failed paint system on stringers and floorbeams.

CITY/TOWN MADAWASKA-EDMUND.	WIN 022035.17	8-STRUCTURE NO. 2399	INSP. DATE JULY 27, 2017

PHOTOS



Photo 9: Underside of Span 4 near Pier 3, Looking South.



Photo 10: North Abutment, Looking North. Note breastwall with map cracking with moisture and scattered areas with efflorescence.

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2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 35: Stringer S8 at Midspan, between Floorbeams FB0N and FB1N, West Face, Span 1 - Section loss of flanges and web. Note top flange with 100% section loss of the outer edge including a vacant drilled hole.

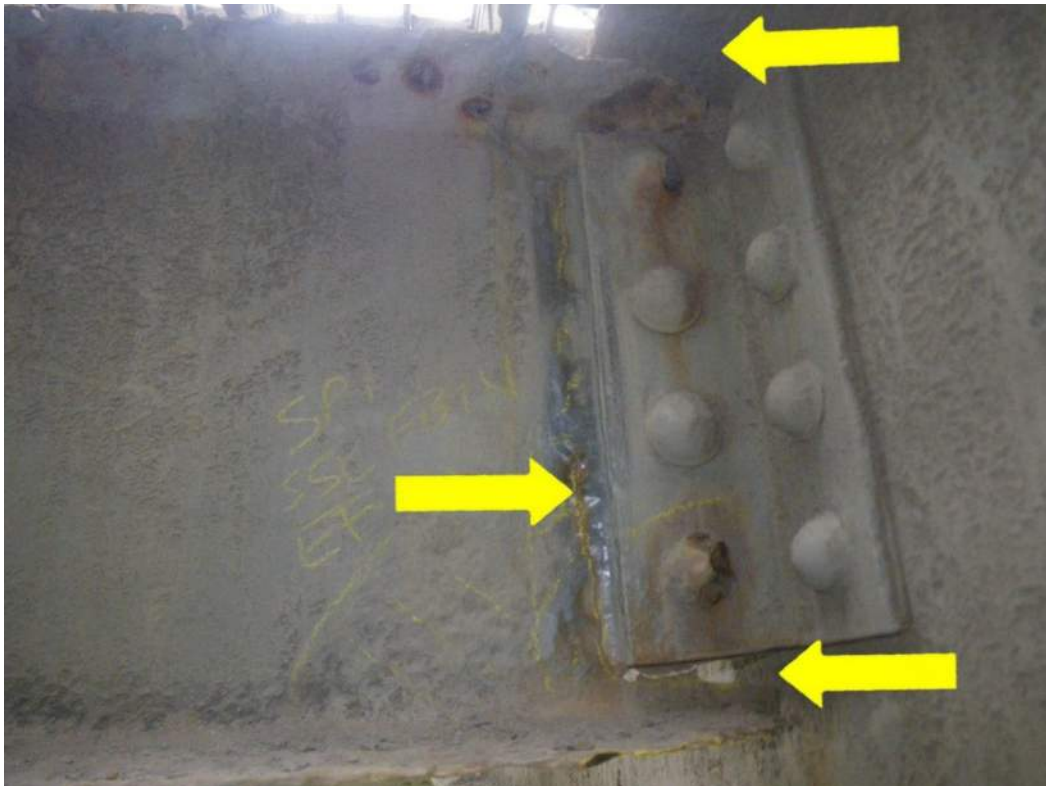


Photo 36: Stringer S5 at South Side of Floorbeam FB1N, East Face, Span 1 - Section loss of flanges and web including areas of 100% section loss. Note web with corrosion crack.

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MADAWASKA-EDMUND.

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022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 37: Stringer S6 at Midspan, between Floorbeams FB1N and FB2N, East Face, Span 1 - Section loss of flanges and web. Note top flange with 100% section loss of the outer edge including a vacant drilled hole.



Photo 38: Stringer S6 at South Side of Floorbeam FB5S, East Face, Span 1 - Section loss of flanges and web including areas of 100% section loss. Note failed paint system.

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2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 39: Stringer S5 at Midspan, between Floorbeams FB5N and FB6, West Face, Span 1 - Web section loss adjacent to lateral bracing connection plate. Note lower lateral bracing bent plate with area of 100% section loss.



Photo 40: Stringer S10 at South Side of Floorbeam FB3N, West Face, Span 4 - Areas of 100% section loss in top flange and web. Note area of 100% section loss in floorbeam cantilever top flange.

CITY/TOWN MADAWASKA-EDMUND.	WIN 022035.17	8-STRUCTURE NO. 2399	INSP. DATE JULY 27, 2017

PHOTOS

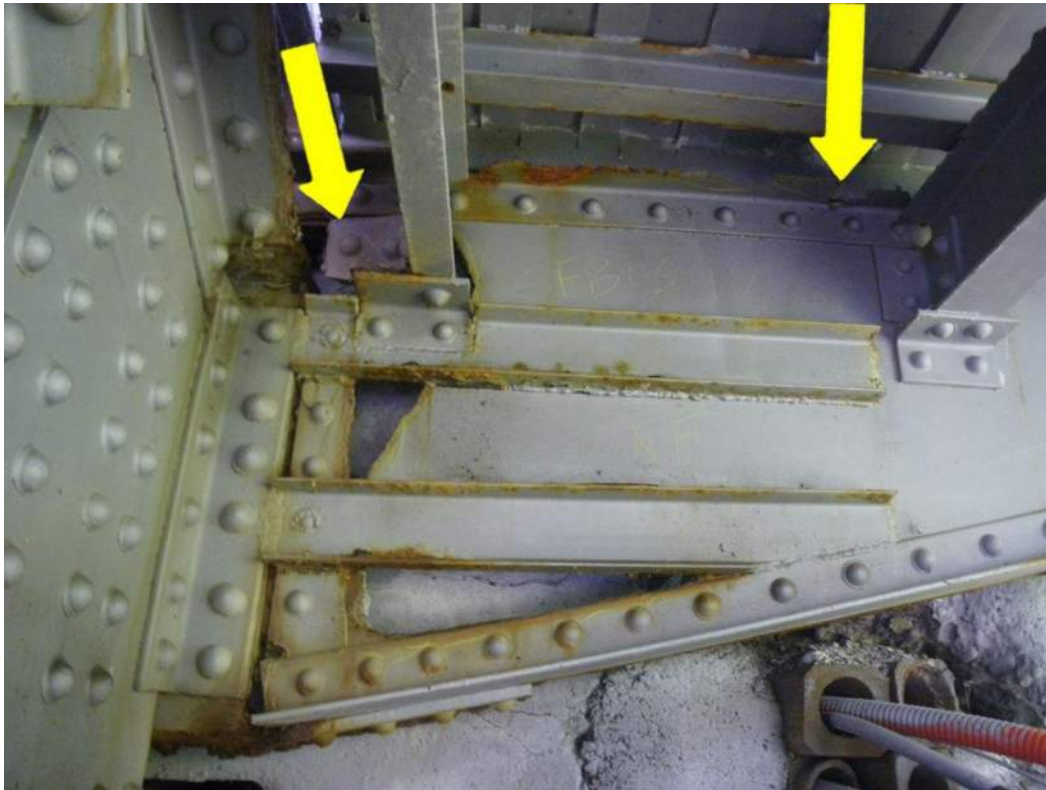


Photo 41: Stringer S10 at Floorbeam FB0S Cantilever, North Face, Span 4 - Not connected to floorbeam web due to 100% section loss of floorbeam web. Note 100% section loss of floorbeam cantilever top flange and repairs.



Photo 42: Floorbeam FB0N between Stringers S2 and S3, North Face, Span 2 - Web section loss. Note failed paint system.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 43: Floorbeam FB5S at Stringer S2, South Face, Span 4 - Web and top flange section loss adjacent to/above stringer connection.

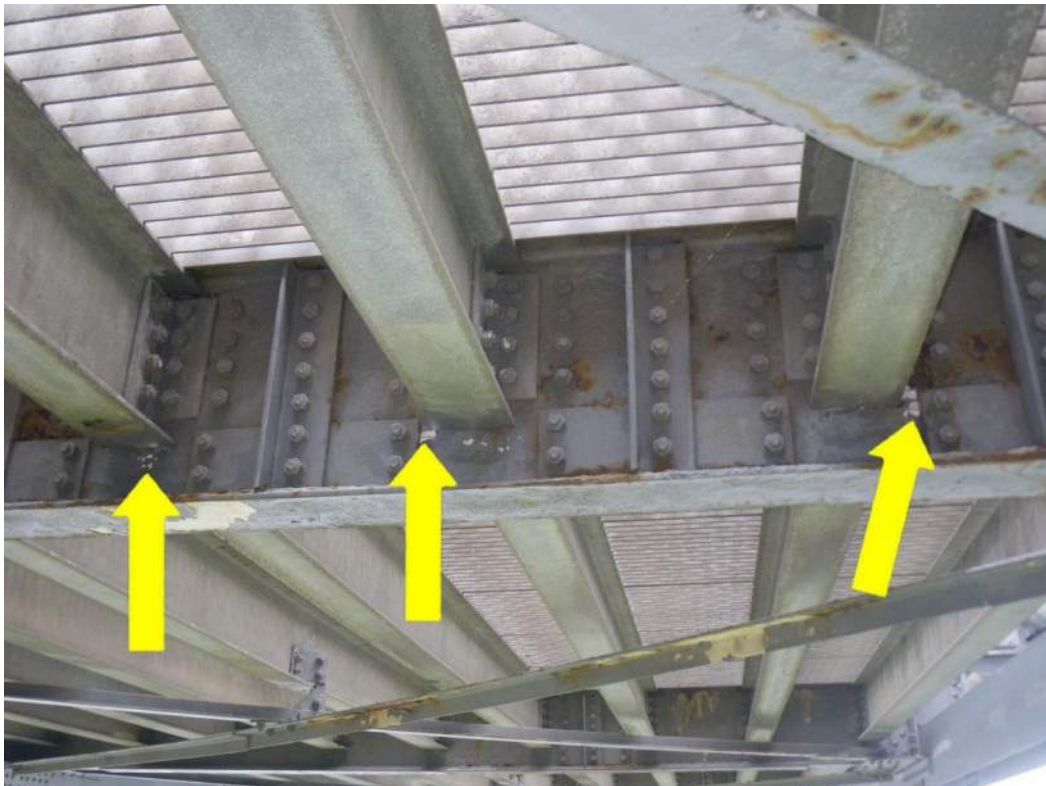


Photo 44: Floorbeam FB2S btwn Stringers S2 & S4, South Face, Span 4 - Web section loss below stringer connections including areas of 100% section loss. Note repair plates not covering 100% section loss & failed paint system.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 45: Floorbeam FB2S at Stringer S4, South Face, Span 4 - Web section loss below stringer connection including area of 100% section loss and bottom flange section loss. Note cracked weld between bottom flange and cover plate with gap.



Photo 46: Floorbeam FB1S at Stringer S2, North Face, Span 4 - Web and bottom flange section loss adjacent to/below stringer connection. Note rust forming under paint system.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 47: Floorbeam FB0S at Stringer S9, North Face, Span 4 - Web section loss below stringer connection including areas of 100% section loss. Note lower lateral bracing with rivet head loss.



Photo 48: Floorbeam FB1N at Stringer S5, South Face, Span 3 - Bottom flange cover plate with bend. Note gap in weld between bottom flange and cover plate.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS

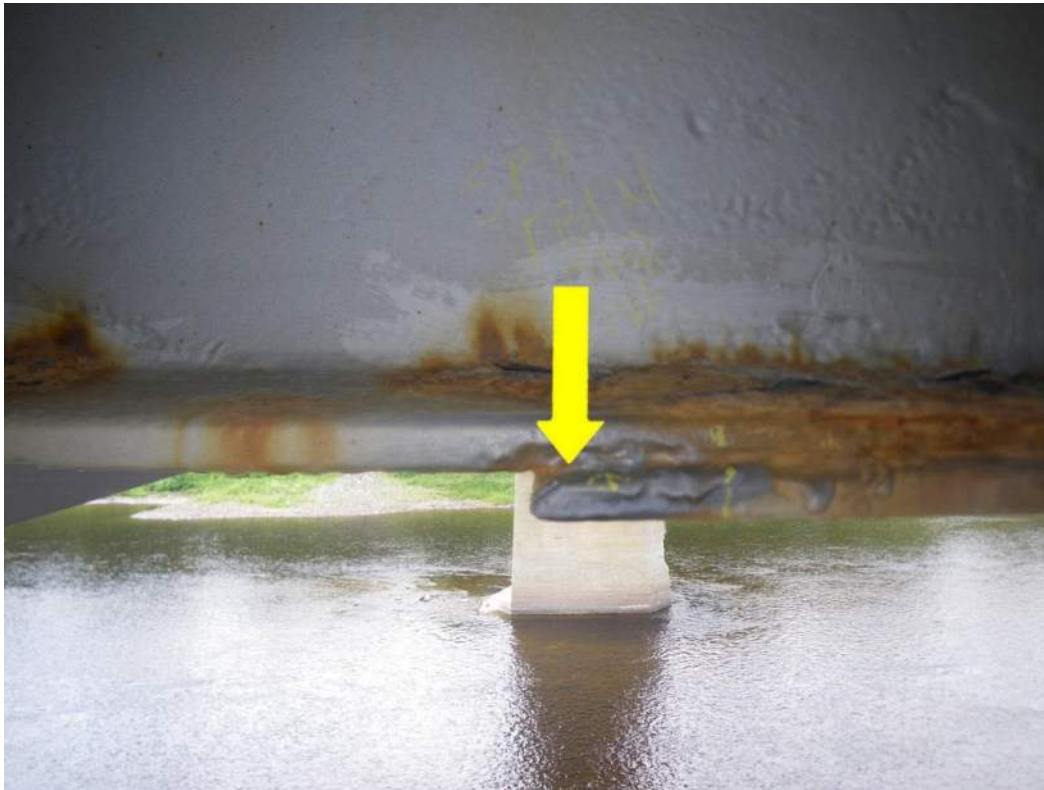


Photo 49: Floorbeam FB1N between Stringers S1 and S2, North Face, Span 3 - Weld between bottom flange and cover plate extends to edge of cover plate and is cracked.



Photo 50: Upper Chord U1NU2N at Panel Point U1N, West Truss, Span 1, Looking Southwest - Vacant drilled holes in top plate and portal/upper lateral bracing connection plate.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 51: Upper Chord U5NU6 near Panel Point U5N, East Truss, Span 1, Looking North - Areas of surface rust and a failed paint system.



Photo 52: Lower Chord L4NL5N at Panel Point L5N, West Face, East Truss, Span 1 - Section loss of vertical legs along lower lateral bracing connection plate. Note section loss of gusset plate and floorbeam connection angle.

CITY/TOWN MADAWASKA-EDMUND.	WIN 022035.17	8-STRUCTURE NO. 2399	INSP. DATE JULY 27, 2017

PHOTOS



Photo 53: Lower Chord L1SL0S at Panel Point L0S, West Truss, Span 1, Looking South - Horizontal legs with section loss including 100% section loss of edge and impacted rust.



Photo 54: Lower Chord L3NL4N at 2'-0" from Panel Point L3N, East Face, East Truss, Span 1 - Section loss of all flange angles.

CITY/TOWN MADAWASKA-EDMUND.	WIN 022035.17	8-STRUCTURE NO. 2399	INSP. DATE JULY 27, 2017

PHOTOS



Photo 55: Lower Chord L2SL1S at Panel Point L1S, West Truss, Span 4, Looking South - Section loss of the horizontal legs along batten plate including 100% section loss of edge.



Photo 56: Lower Chord L2SL1S at Panel Point L1S, West Face, East Truss, Span 4 - Section loss of vertical legs. Note section loss of lower lateral bracing connection plate.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 57: Lower Chord L1SL0S at Panel Point L0S, East Truss, Span 4 - Vertical leg section loss including area of 100% section loss. Note abandoned utility support angle in contact with lower chord and gusset plate section loss.



Photo 58: Lower Chord L2NL3N near Panel Point L2N, West Truss, Span 1, Looking North - Impacted rust between horizontal legs of flange angles. Note section loss of batten plate including area of 100% section loss.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 59: Lower Chord L1NL2N near Panel Point L1N, West Truss, Span 1, Looking South - Bends in the vertical leg of flange angle.



Photo 60: Lower Chord L4NL5N at South Third Point, East Face, East Truss, Span 1 - Intersecting welds of the abandoned anchor point on the flange angles.

CITY/TOWN MADAWASKA-EDMUND.	WIN 022035.17	8-STRUCTURE NO. 2399	INSP. DATE JULY 27, 2017

PHOTOS



Photo 61: Lower Chord L6L5S Splice near Panel Point L6, East Truss, Span 4, Looking North - Section loss of splice plate. Note rivet head loss.



Photo 62: Lower Chord L4SL3S Splice, West Face, East Truss, Span 4 - Section loss of splice plate. Note lower chord with area of prime coat only and surface rust.

CITY/TOWN MADAWASKA-EDMUND.	WIN 022035.17	8-STRUCTURE NO. 2399	INSP. DATE JULY 27, 2017

PHOTOS

Photo 63: Diagonal L2SU1S near Deck, West Face, East Truss, Span 3 - Flange angle section loss.



Photo 64: Diagonal L6U4S at Panel Point L6, West Face, East Truss, Span 4, Looking North - Section loss of both flange angles along gusset plate.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 65: Diagonal U2NL4N at Panel Point M3N, West Face, East Truss, Span 2 - Section loss of both flange angles along gusset plate. Note impacted rust between gusset plate and flange angles.

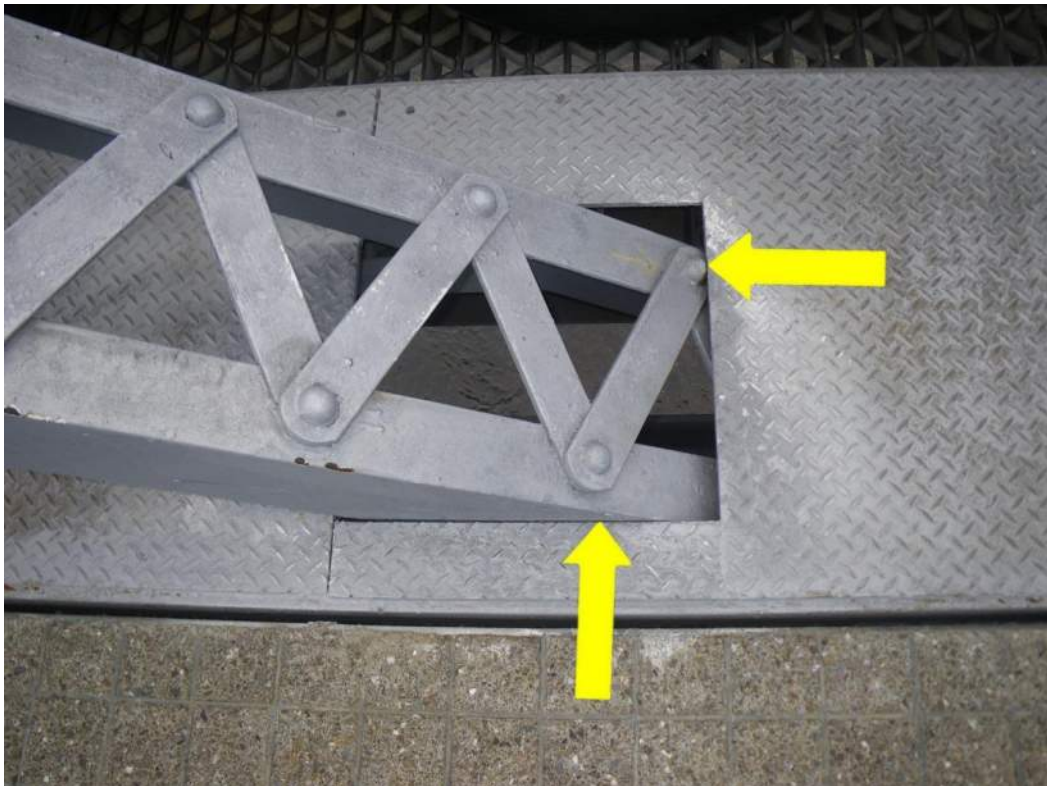


Photo 66: Diagonal M3SL2S at Curb Penetration, West Truss, Span 3, Looking East - Contact with curb and collision scrapes.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 67: Vertical U1SL1S near Curb, North Face, West Truss, Span 2 - Bend of flange angle due to collision damage. Note abandoned sign support bar protruding outward from the vertical.



Photo 68: Vertical U3NL3N near Curb, East Face, West Truss, Span 3 - Flange angles with sweep, rotation and bend due to collision damage.

CITY/TOWN
MADAWASKA-EDMUND.

WIN
022035.17

8-STRUCTURE NO.
2399

INSP. DATE
JULY 27, 2017

PHOTOS



Photo 69: Vertical U5NL5N near Curb, South Face, West Truss, Span 3 - Bend and gouge of flange angles due to collision damage. Note flange angles in contact with curb.

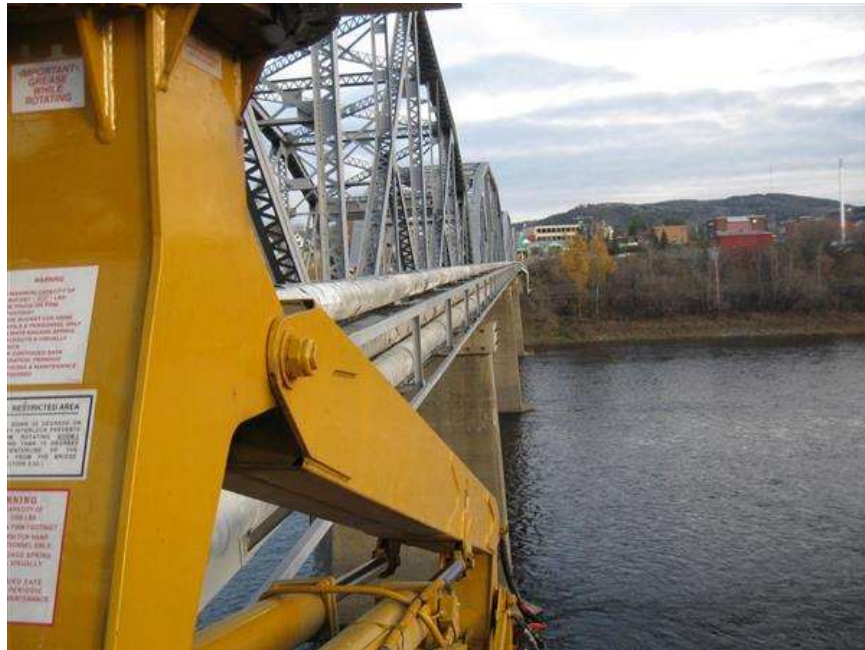


Photo 70: Lower Lateral Bracing Member at Panel Point L3S, East Truss, Span 1, Looking North - Section loss including area of 100% section loss. Note rivet head loss.

HIGHWAY BRIDGE INSPECTION REPORT

Highway Bridge Inspection Report

INTERNATIONAL BRIDGE STREET over ST JOHN RIVER



Asset Code: 2399

Inspection Date: 10/28/2016

Inspected By: Steve Harris

Inspection Type(s): Routine
Fracture Critical

National Bridge Inventory

Status: 1 - SD

Bridge Name: INTERNATIONAL

Sufficiency Rating: 39.6

Inspections

(90) INSPECTION DATE	& (91) DESIGNATED INSPECTION FREQUENCY	24	10/28/2016
(92) CRITICAL FEATURE INSPECTION	& (93) CFI DATE		
(92A) FRACTURE CRITICAL DETAIL		Y 24	10/28/2016
(92B) UNDERWATER INSPECTION		Y 60	6/12/2012
(92C) OTHER SPECIAL INSPECTION		N	

Identification

(1) STATE CODE	231 - Maine
(8) STRUCTURE NUMBER	2399
(5) INVENTORY ROUTE	
(5A) RECORD TYPE	1: Route carried "on" the structure
(5B) ROUTE SIGNING PREFIX	3 - STATE HIGHWAY
(5C) DESIGNATED LEVEL OF SERVICE	0 - None
(5) INVENTORY ROUTE	0
(5) INVENTORY ROUTE	0 - NOT APPLICABLE
(2) HIGHWAY AGENCY DISTRICT	05 - Northern
(3) COUNTY CODE	003 Aroostook
(4) PLACE CODE	42520
(6) FEATURES INTERSECTED	ST JOHN RIVER
(7) FACILITY CARRIED	BRIDGE STREET
(9) LOCATION	0.2 MI N'LY OF JCT US1
(11) MILEPOINT	0.180
(12) BASE HIGHWAY NETWORK	Inventory Route is on the Base Network
(13) LRS INVENTORY ROUTE, SUBROUTE	
(13A) LRS INVENTORY ROUTE	0000302603
(13B) SUBROUTE NUMBER	00
(16) LATITUDE	47.35999
(17) LONGITUDE	-68.32861
(98A) BORDER BRIDGE CODE	CAN - Canada
(98B) PERCENT RESPONSIBILITY	50
(99) BORDER BRIDGE STRUCT NO.	n/a

Structure Type and Material

(43) STRUCTURE TYPE, MAIN	
(43A) KIND OF MATERIAL/DESIGN	3 - Steel
(43B) TYPE OF DESIGN/CONSTR	10 - Truss - Thru
(44) STRUCTURE TYPE, APPROACH SPANS	
(44A) KIND OF MATERIAL/DESIGN	0 - Other
(44B) TYPE OF DESIGN/CONSTRUCTION	00 - Other
(45) NUMBER OF SPANS IN MAIN UNIT	4
(46) NUMBER OF APPROACH SPANS	0
(107) DECK STRUCTURE TYPE	5 - Steel Plate (includes orthotropic)
(108) WEARING SURFACE/PROTECTIVE SYSTEMS	
(108A) WEARING SURFACE	9 - Other
(108B) DECK MEMBRANE	N - NA
(108C) DECK PROTECTION	N - NA

Age of Service

(27) YEAR BUILT	1921
(106) YEAR RECONSTRUCTED	2001
(42) TYPE OF SERVICE	
(42A) TYPE OF SERVICE ON BRIDGE	5 - Highway-pedestrian
(42B) TYPE OF SERVICE UNDER BRIDGE	5 - Waterway
(28) LANES	
(28A) LANES ON THE STRUCTURE	02
(28B) LANES UNDER THE STRUCTURE	00
(29) AVERAGE DAILY TRAFFIC	3648
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(109) AVERAGE DAILY TRUCK TRAFFIC	9
(19) BYPASS DETOUR LENGTH	100

Geometric Data

(48) LENGTH OF MAXIMUM SPAN (ft.)	235
(49) STRUCTURE LENGTH (ft.)	949.0
(50) CURB/SIDEWALK WIDTHS	
(50A) LEFT CURB SIDEWALK (ft.)	6.0
(50B) RIGHT CURB SIDEWALK (ft.)	0.5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	20.7
(52) DECK WIDTH, OUT-TO-OUT (ft.)	21.7
(32) APPROACH ROADWAY WIDTH (ft.)	21.0
(33) BRIDGE MEDIAN	0 - No median
(34) SKEW (deg.)	0
(35) STRUCTURE FLARED	0 - No flare
(10) INV RTE, MIN VERT CLEARANCE (ft.)	14.33
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	20
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	14.33
(54) MIN VERTICAL UNDERCLEARANCE	
(54A) REFERENCE FEATURE	N - Feature not a highway or railroad
(54B) MIN VERTICAL UNDERCLEASENCE (ft.)	0
(55) MIN LATERAL UNDER CLEARANCE RIGHT	
(55A) REFERENCE FEATURE	N - Feature not a highway or railroad
(55B) MIN LATERAL UNDER CLEARANCE RIGHT (ft.)	327.76
(56) MIN LATERAL UNDER CLEARANCE (ft.)	99.9

Classification

(112) NBIS BRIDGE LENGTH	Yes
(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1 - Structure/Route is on NHS
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02 - Rural - Principal Arterial - Other
(100) STRAHNET HIGHWAY DESIGNATION	Not a STRAHNET route
(101) PARALLEL STRUCTURE DESIGNATION	N - No parallel structure
(102) DIRECTION OF TRAFFIC	2-way traffic
(103) TEMP STRUCTURE	
(105) FEDERAL LANDS HIGHWAYS	Not Applicable
(110) DESIGNATED NATIONAL NETWORK	Inventory route not on network
(20) TOLL	3 - On Free Road
(21) MAINTENANCE RESPONSIBILITY	01 - State Highway Agency
(22) OWNER	01 - State Highway Agency
(37) HISTORICAL SIGNIFICANCE	2 - Eligible for National Register

Condition

(58) DECK	4 - Poor Condition (advanced deterioration)
(59) SUPERSTRUCTURE	5 - Fair Condition (minor section loss)
(60) SUBSTRUCTURE	5 - Fair Condition (minor section loss)
(61) CHANNEL & CHANNEL PROTECTION	5 - Bank eroded.. major damage
(62) CULVERT	N - Not Applicable

Load Rating and Posting

(31) DESIGN LOAD	4 - H 20
(63) METHOD USED TO DETERMINE OPERATING RATING	8 - Load and Resistance Factor
(64) OPERATING RATING	0.84
(65) METHOD USED TO DETERMINE INVENTORY RATING	8 - Load and Resistance Factor
(66) INVENTORY RATING	0.65
(70) BRIDGE POSTING	5 - Equal to or above legal
(41) STRUCTURE OPEN/POSTED/CLOSED	A - Open

Appraisal

(67) STRUCTURAL EVALUATION	5
(68) DECK GEOMETRY	2
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(71) WATERWAY ADEQUACY	8 - Bridge Above Approaches
(72) APPROACH ROADWAY ALIGNMENT	8 - Equal to present desirable criteria
(36) TRAFFIC SAFETY FEATURE	
36A) BRIDGE RAILINGS:	0 - Does not meet acceptable standards/safety feature is required
36B) TRANSITIONS:	0 - Does not meet acceptable standards/safety feature is required
36C) APPROACH GUARDRAIL	0 - Does not meet acceptable standards/safety feature is required
36D) APPROACH GUARDRAIL ENDS	0 - Does not meet acceptable standards/safety feature is required
(113) SCOUR CRITICAL BRIDGES	3 - Foundations unstable for scour conditions

Proposed Improvements

(75) TYPE OF WORK

(75A) TYPE OF WORK PROPOSED
(75B) WORK DONE BY
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)
(94) BRIDGE IMPROVEMENT COST (\$K)
(95) ROADWAY IMPROVEMENT COST (\$K)
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114) FUTURE ADT
(115) YEAR OF FUTURE ADT

Navigation Data	

(38) NAVIGATION CONTROL	1 - Navigation control on waterway (bridge
(111) PIER OR ABUTMENT PROTECTION	4 - In place but reevaluation of design
(39) NAV VERT CLEARANCE	34.0
(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE	0
(40) NAV HORIZONTAL CLEARANCE	228.0

Inspection Notes

Structure Number: 2399

Town: Madawaska

Structure Name: INTERNATIONAL

Inspection Date: 10/28/2016

Structure Notes

Four steel truss spans, two Maine half two Canadian. Concrete piers & abutments. Not inspectable with the UBC because of sidewalk width & utilities. Special note from Boarder Patrol: No pictures can be taken of the facility or officers. Per MeDOT and Boarder Patrol - Always check in and out prior to inspecting the bridge. Proper ID is required to access the USA side, such as MeDOT picture ID and Maine drivers licence. Scott Cyr of the U.S. Customs and Border Protection 207-728-4565 Contact number for Canadian Customs 1-506-739-1820

Wearing Surface

Deck

NBI Item 58: 4

Steel Grid deck on both sides with sidewalks filled with concrete. USA side of bridge has very good grid deck. Canada side has older grid deck with various areas of broken bars and repaired sections. Canada side also has active corrosion of sidewalk stay in place forms.

Superstructure

NBI Item 59: 5

Paint of the superstructure is generally good. There is isolated heavy pitting on the USA side and many floorbeams have been strengthened. The Canada side has extensive deep pitting and scattered section loss on the top flanges of the floor beams. Fracture critical inspection performed on all respective areas and elements.

Substructure

NBI Item 60: 5

The North abutment has fine map cracking throughout. South abutment has been reinforced. The South Pier has large spall with exposed rebar on the nose, but cap has been reinforced, and has scaling around the bearing masonry plates. The shared Pier has moderate map cracking. The North Pier has pattern map cracking with some areas of efflo.

Culvert

NBI Item 62: N

Channel

NBI Item 61: 5

Other

Special Inspection

Monitoring

Pontis Notes

Inspector: Steve Harris

Structure Number: 2399

Inspection Date: 10/28/2016

Facility Carried: BRIDGE STREET

Highway Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
28 - Steel Deck with Open Grid	3 - Mod.	20593	sq. ft.	10343		10250	
29 - Steel Deck with Concrete Filled Grid	3 - Mod.	5694	sq. ft.	3348		2346	
113 - Steel Stringer	3 - Mod.	11388	ft.	10188	1000	200	
515 - Steel Protective Coating		11388	sq. ft.	9388	2000		
120 - Steel Truss	3 - Mod.	1898	ft.	1893	5		
515 - Steel Protective Coating		1898	sq. ft.	1698	200		
152 - Steel Floor Beam	3 - Mod.	1042	ft.	729	313		
515 - Steel Protective Coating		1042	sq. ft.	842	200		
210 - Reinforced Concrete Pier Wall	3 - Mod.	65	ft.	45	20		
215 - Reinforced Concrete Abutment	3 - Mod.	43	ft.	13	30		
304 - Open Expansion Joint	3 - Mod.	109	ft.	109			
311 - Movable Bearing	3 - Mod.	8	each	6	2		
515 - Steel Protective Coating		8	sq. ft.	6	2		
313 - Fixed Bearing	3 - Mod.	8	each	6	2		
515 - Steel Protective Coating		8	sq. ft.	6	2		
330 - Metal Bridge Railing	3 - Mod.	1898	ft.	1398	500		
820 - Reinforced Concrete Wall	3 - Mod.	65	ft.	20	45		

APPENDIX A

BRIDGE DRAWINGS

APPENDIX B

PB 2012 LOAD RATING