

A PORTION OF CUMBERLAND COUNTY

1/2 MILE 0 1/2 MILE 1 MILE

LOCATION MAP

HYDROLOGIC DATA

Drainage Area -----38.9 sq. miles
* Design Discharge (Q50) at Elev. +9.6 ---43,850 cfs
* Check Discharge (Q100) at Elev. +9.8 ---47,400 cfs
Mean High Water -----Elev. +4.8
Mean Tide Level -----Elev. +0.3
Mean Low Water -----Elev. -4.3
1992 Predicted High Tide -----Elev. +7.0
Area of river channel for existing
and proposed bridges at Elev. 0 -----24,000 sq.ft
* Discharge includes both runoff and tidal effects.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



PORTLAND - SOUTH PORTLAND
CUMBERLAND COUNTY

PORTLAND - SOUTH PORTLAND BRIDGE
OVER THE FORE RIVER

NORTH APPROACH
SUPERSTRUCTURE
STEEL CONSTRUCTION
ALTERNATIVE

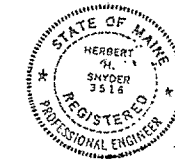
PROJECT NO.: DPI-0068(002)

PROJECT LENGTH: 0.831 MILES

OFFICE COPY
AS ADVERTISED 7/20/94

NOTE

All work contemplated under this contract to be governed by and in conformity with the STANDARD SPECIFICATIONS (revision of October 1990) and supplementals thereto, except as modified on the plans and in the special provisions.



Herbert A. Snyder

COAST GUARD PERMIT NO. 5-9

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Robert A. Wall
COMMISSIONER

DATE

6/30/94

Robert A. Wall
CHIEF ENGINEER

6/30/94

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR

PLANS
CHECKED
REVISION
FIELD CHANGES
DATE
BY
6-94
PDB

title sheet

Coast Guard permit required

Datum
Based on 1929 NGVD

Tidal data

Hydrologic data

Drainage Area = 38.9 square mi

* Design discharge (Q50) = 43850

* Check discharge (Q100) = 47400

Mean high water = Elev. 4.8

Mean tide level = Elev. 0.3

Mean low water = Elev. -4.3

1992 Predicted high tide = Elev.

Existing and proposed opening
24,000 sq. ft.
*Discharge includes both runoff
and tidal effects

A hydraulic report of the bridge site is available as a contractor's reference at the Bridge Design Office. The hydraulic report is based on the interpretation of the data of the hydraulic study obtained from the Department of Information obtained for the study. No assurance is given that the information, conclusions of the report will be representative of the conditions at the time of construction.



The information on this drawing pertains to the overall Port Portland Bridge project. This North Approach contract includes construction of seven mainline northbound superstructure spans, six mainline southbound superstructure spans extending from bascule pier to the north abutments. In addition, this contract includes construction of the Beach Street Ramp abutment, and six spans extending from the Beach Street abutment to Pier 6R.

All regulatory, guide, warning, bascule warning signs, and sign and signal support poles and structures for the north approach spans shown herein shall be provided and installed this contract.

Pull wires shall be provided with all electrical conduits in contract.

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE I
CUMBERLAND I

GENERAL I AND ELEVA

STEEL ALTERNATIVE

70028: 66B: BU

STEEL ALTERNATIVE SUPERSTRUCTURE - INDEX

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NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND
OVER FOREST
CUMBERLAND

INDEX OF DRAWINGS

SHEET 3 OF 156 AUGUSTA

PROJECT	DESIGN ENGINEER	DATE
PLANS	DESIGN-DETAILED	6-94
	CHECKED	6-94
	REVISION	
	FIELD CHANGES	

6-28-94

no. dwn. l st

ESTIMATED QUANTITIES

Item Number	Description	Unit	Quantity
403.10	Hot Bituminous Pavement, Grading D	Ton	2155
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges	Lump Sum	-----
502.29	Structural Concrete Wearing Surface on Bridges	Lump Sum	-----
502.4711	Silica Fume Additive	Lump Sum	-----
526.31	Permanent Concrete Barrier Type II	L.F.	1311
526.32	Permanent Concrete Barrier Type III	L.F.	3908
503.14	Epoxy-coated Reinforcing Steel, Fabricated and Delivered	Pound	1452000
503.15	Epoxy-coated Reinforcing Steel, Placing	Pound	1452000
504.70	Structural Steel Fabricated and Delivered	Lump Sum	-----
504.71	Structural Steel Erection	Lump Sum	-----
505.08	Shear Connectors	Lump Sum	-----
508.13	Membrane Waterproofing	Lump Sum	-----
514.06	Curing Box for Concrete Cylinders	Each	
520.21	Expansion Device - Gland Seal, North Abutment Bearing No. 1	Each	1
520.21	Expansion Device - Gland Seal, North Abutment Bearing No. 3	Each	1
520.21	Expansion Device - Gland Seal, Pier 1R	Each	1
520.21	Expansion Device - Gland Seal, Pier 3R	Each	1

ESTIMATE OF LUMP SUM QUANTITIES

Item Number	Description	Unit	Quantity
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges	Lump Sum	5220
502.4711	Silica Fume Additive	Lbs.	36500
504.70	Structural Steel Fabricated and Delivered, gr. 50	Lbs.	4974000
504.70	Structural Steel Fabricated and Delivered, gr. 36	Lbs.	1031000
505.08	Shear Connectors	Each	23600
508.13	Membrane Waterproofing	S.Y.	13700
502.29	Structural Concrete Wearing Surface on Bridges	C.Y.	50

ESTIMATED QUANTITIES

Item Number	Description	Unit	Quantity
520.23	Expansion Device - Finger Joint, North Bascule Pier	Each	1
520.23	Expansion Device - Finger Joint, Pier 4N	Each	1
520.23	Expansion Device - Finger Joint, Pier 6R	Each	1
521.30	Fabric Trough for Finger Joint, North Bascule Pier	Each	1
521.30	Fabric Trough for Finger Joint, Pier 4N	Each	1
521.30	Fabric Trough for Finger Joint, Pier 6R	Each	1
523.10	Pot Bearings	Each	82
627.61	4 inch Solid White Pavement Marking Line	L.F.	6520
627.62	4 inch Broken White Pavement Marking Line	L.F.	2667
639.22	Testing Facilities Bituminous Mixes	Lump Sum	-----
639.23	Testing Facilities Concrete	Lump Sum	-----
645.121	Ovrhd Guide Sign, Sta. 206+15	Lump Sum	1
645.122	Ovrhd Guide Sign, Sta. 212+31.97	Lump Sum	1
645.271	Reg Warn Conf Rte Signs Type 1	S.F.	118
645.289	Steel H-beam Poles	Lbs.	1251
652.31	Type I Barricade	Each	
652.33	Drum	Each	
652.34	Cone	Each	
652.35	Construction Signs	S.F.	
652.361	Maintenance of Traffic Control Devices	Lump Sum	-----
652.37	Warning Lights	Group	
652.38	Flaggers	Man Hours	
659.10	Mobilization	Lump Sum	-----
660.21	On-the-job Training	Man Hours	
	Telephone-service 3"ø Conduit	L.F.	1140
	CATV, 3"ø Galvanized RMC Conduit	L.F.	1140
	Electrical Conduits for Bascule Span, 6"ø	L.F.	800
	Control and Spare Conduits for Bascule Span, 2"ø	L.F.	800

NOTES:

Lump Sum Item 504.70 "Structural Steel Fabricated and Delivered" includes 210,000 pounds of material for longitudinal inspection on Spans N1 thru N6 and transverse walkways on Piers 1N thru 5N. Abutment No. 1, ladders, railings, flooring, the 1"ø threaded bar supports, all drain pipe support brackets and collection boxes attached to the structural steel, and other items necessary to complete these items of work.

Lump Sum Item 504.71 "Structural Steel Erection" includes the longitudinal inspection and transverse pier walkways, ladders, and other items necessary to complete these items of work.

Placement of and payment for the volume of 1'-1" wide sidewalk is included in Item 502.26.

NORTH APPROX

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND
OVER FOREST
CUMBERLAND

ESTIMATE OF COST

SHEET 4 OF 156 AUGUST 1994

PROJECT ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	
PLANS	

6-27-94

ed. est. qua

STEEL ALTERNATIVE - SUPERSTRUCTURE GENERAL NOTES

F.H.W.A. REG. NO.	STATE	PROJ.
1	MAINE	DPI-

Specifications

Design: Load Factor Design

Design Division I of the AASHTO Standard Specifications for Highway Bridges, 15th Edition, 1992.

Seismic design is in accordance with the AASHTO Standard Specification for Seismic Design of Highway Bridges, 1983, and as modified by the 1991 Interim Specifications, for the following parameters:

1. A (acceleration coefficient) = 0.10
2. Cs (elastic seismic response coefficient or lateral design force coefficient) $\leq 2.5 \times A$
3. R (response modification factor) = In accordance of Table 3 of the referenced seismic specification.
4. SPC (seismic performance category) = B
5. S (soil profile type) = I
6. IC (importance classification) = I
7. Strength design method

Welding: ANSI/AASHTO/AWS Bridge Welding Code (D1.5-88) and the contract special provisions.

The nominal fatigue resistance of the steel superstructure is determined from section 6.5.2 of the proposed LRFD BRIDGE DESIGN CODE, third draft, April 1992.

Contract: Materials and workmanship to be provided in accordance with the State of Maine, Department of Transportation, Standard Specifications, Highway and Bridges, revision of October, 1990, and the contract special provisions.

Design Loading

Live Load: AASHTO HS25, and alternate military loading.

Fatigue: Fatigue design is based on A.D.T. 1993 = 31,940
A.D.T. 2013 = 36,330
T.(%) = 4
D.(%) = 65

N = Number of stress range cycles of the fatigue truck for a design life of 75 years.
N = 64,000,000 cycles

Dead and Live load distribution for design of girders and cross-frames is based on a three dimensional finite element analysis.

Materials

Concrete: Deck, barrier and parapets - Class A
Sidewalk wearing surface - Class AASF

Reinforcing steel: AASHTO M31 (ASTM A615), epoxy coated, grade 60

Structural steel: AASHTO M270 (ASTM A709), grade 50,
AASHTO M270 (ASTM A709), grade 36,
& AASHTO M183 (ASTM A36)

Basic Design Stresses

Concrete: Deck, $f'_c = 4000$ psi
Reinforcing Steel: $f_y = 60000$ psi
Structural Steel: $F_y = 50000$ psi and $F_y = 36000$ psi

Existing Structure

Maintenance of four lanes of traffic, 2 lanes each way, across the existing bridge and mandatory traffic runaround structures will be required at all times.

Plans for the existing bridge are available for the Contractor's reference at the Bridge Design Office, Augusta. The plans are reproductions of original drawings as prepared for construction of the bridge and it is very unlikely that the plans will show any or all construction field changes or alterations that may have been made to the bridge during its life span.

Structure Geometry

All structure geometry is based upon and is compatible with reference point(s) and tie(s) shown on sheet, "KEY GEOMETRY".

All dimensions are horizontal except as noted.

Layout dimensions and lengths of girders shown are horizontal dimensions and must have the additional lengths added for the lengths along grade.

Camber ordinates, as shown on the plans, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile and superelevation. Detail diaphragm and cross frame members to fit the cambered (no load) position of the girders.

A minimum of three adjoining field sections of a continuous girder shall be used during shop assembling in accordance with Section 504.26 of the Standard Specifications.

Structural Metalwork and Bolted Connections

Provide structural steel conforming to AASHTO M270 (ASTM A709), Gr 50, except when noted otherwise.

Heat curving in accordance with Supplemental Specifications Section 504 or flame cutting of flange plates for curved girders will be permitted.

Flange plates for the following curved girders shall be flame cut to conform to the radius of the girder centerline, heat curved will not be allowed.

- Span R3 - girders 1, 2, 3, and 4 from Sta. 17+22.25 to Sta. 17+45.00
- Span R4 - girders 1, 2, 3, and 4
- Span R5 - girders 1, 2, 3, and 4
- Span R6 - girders 1, 2, 3, and 4
- Spans N1-N4 - girder 7, from field splice adjacent to point of reverse horizontal curve to end of girder at Pier 6R.

Filler plates may be AASHTO M270 (ASTM A709), grade 36 steel and mill tests for filler plate material will not be required.

Bearing stiffeners shall be plumb after erection and dead load deflection of the structure.

Intermediate web stiffeners or intermediate cross-frame connection plates shall be normal to the top flange, unless otherwise shown on the plans.

The bearing details are shown for normal temperature of 45 ° F.. No separate payment will be made for resetting bearings to the final position if adjustments are required.

All fasteners are 7/8-inch diameter AASHTO M164 (ASTM A325) high strength bolts, except as noted.

Bolted connections are designed as slip-critical joints with all faying surfaces having a Class B slip coefficient.

Welding

No transverse butt-weld splices will be allowed in the flange plates or web plates within 10 feet or 10 percent of the span length (whichever is greater) from the points of maximum positive moment or maximum negative moment, unless otherwise shown on the plans.

Butt-weld splices in flanges shall be not less than three feet from transverse butt-welds in the web plates and no transverse web or flange butt-welds shall be located within three feet from transverse welds (e.g. connection plate to web welds) on either flange or web, unless otherwise shown on the plans.

Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be not less than 40 feet in length, unless otherwise shown on the plans.

Notch toughness requirements, as specified in Table S1.2 of AASHTO Interim Specifications for Transportation Materials and Methods of Sampling And Testing, Part I - Interim Specifications (1992) are mandatory for all main load-carrying members. For the purpose of this specification, main load-carrying members shall be those parts of the structure carrying calculated stresses, including webs and flanges of welded plate girders, rolled shapes used as girders, floorbeams and stringers, all components of cross-frames including girder web connection plates and girder bearing stiffeners, and all splice material for the listed members other than filler plates.

Concrete Construction

All reinforcing steel bars shall be epoxy coated.

Adjust reinforcing steel to fit around the drains in a manner approved by the Engineer. Do not cut transverse reinforcing bars.

Provide 2-inch concrete cover on reinforcing steel bars, unless otherwise shown.

Form a 1" V-groove on the fascias at the horizontal joint between the curb or parapet and the slab.

For all spans deck slab concrete placement shall be done according to State of Maine BDM page 1060(1). Continuous placement of the deck slab concrete in either direction will be permitted except for Spans N5-N6 and R2-R3, however, if staged placement is used follow the sequence shown in the plans.

For placement of deck slab concrete in Spans N5-N6 and R2-R3 follow the sequence shown in the plans.

Screed rails for deck slab finishing machine wheel loads to be supported directly above girders.

Keep concrete plastic within a placement until the entire placement is complete.

All concrete in the parapets, median barrier, and sidewalk wearing surface shall contain a silica fume additive in accordance with Section 701.12 of the Standard Specifications.

Fill the clearance between the anchor bolts and holes in the masonry plates with approved non-hardening caulking compound conforming to Section 714.04 of the Standard Specifications.

Supporting devices (diagonal braces) for support of deck slab forming shall extend to the junction of the web and bottom flange. Submit working drawings of the proposed forms and supporting system for approval in accordance with section 502.20 of the standard specifications.

Cost to build forms and place concrete in top portion of north abutment backwalls to be included in the Lump Sum bid for Item 502.26.

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

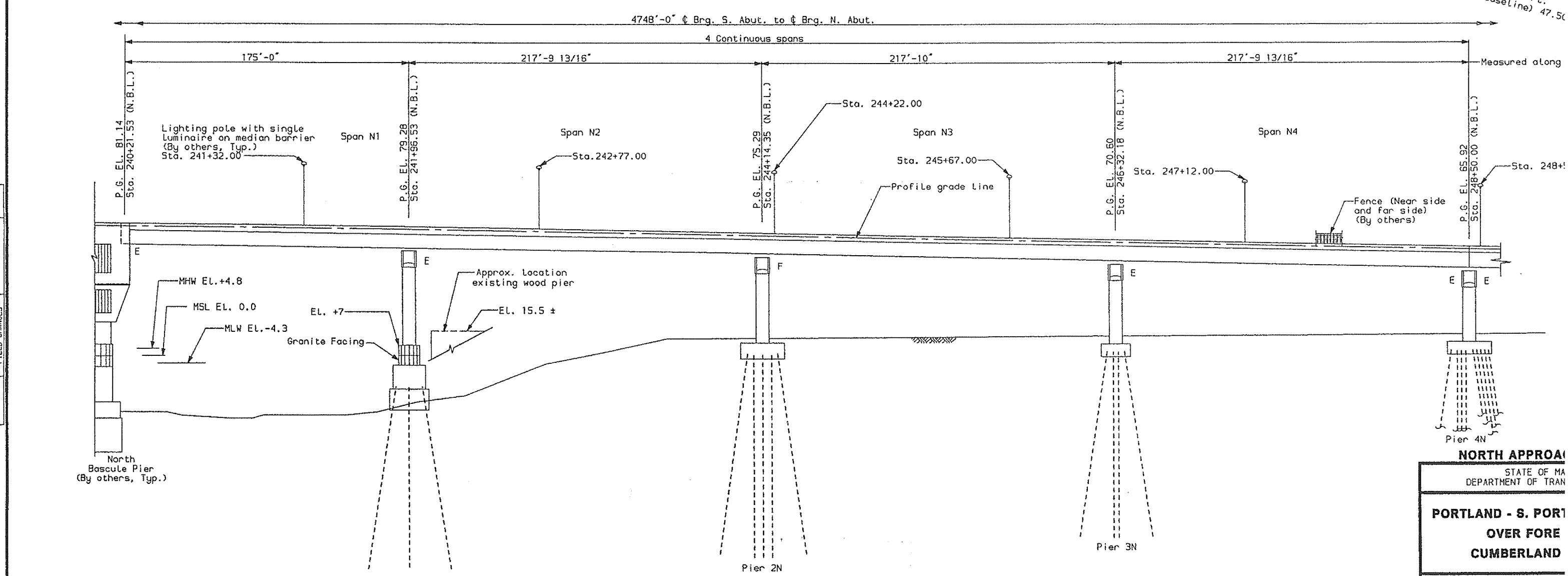
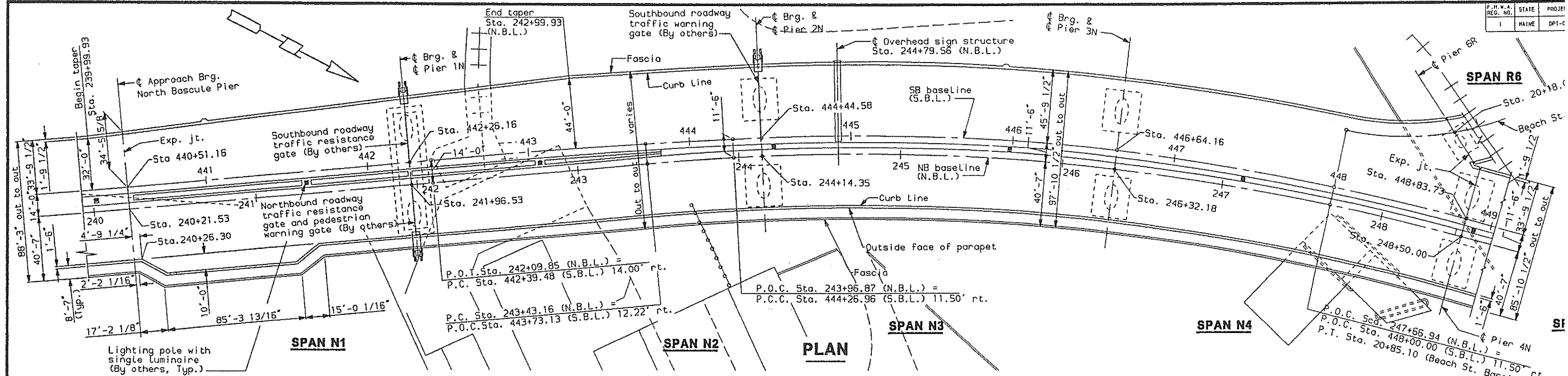
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OVER FORE I
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GENERAL NOTES

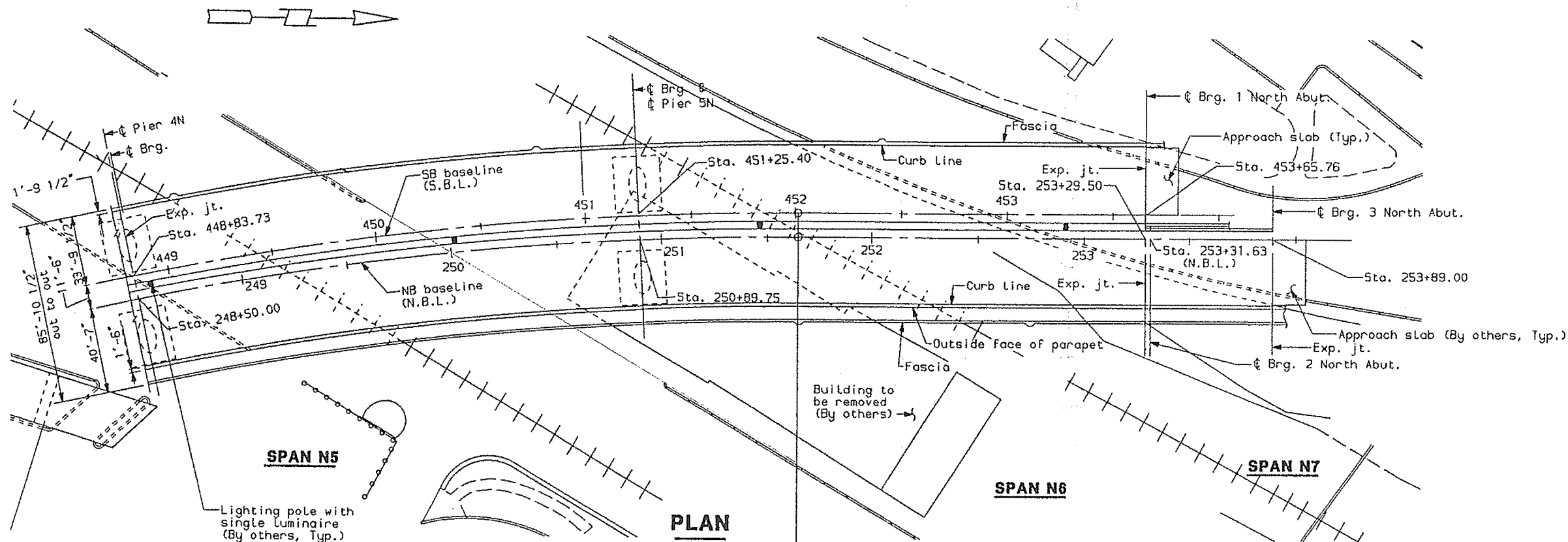
SHEET 5 OF 156 AUGUSTA,

DATE	6-94	6-94
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DESIGN-DRAWN	MC1	MC1
CHECKED	MC1	MC1
REVISION		
FIELD CHANGES		
PLANS		

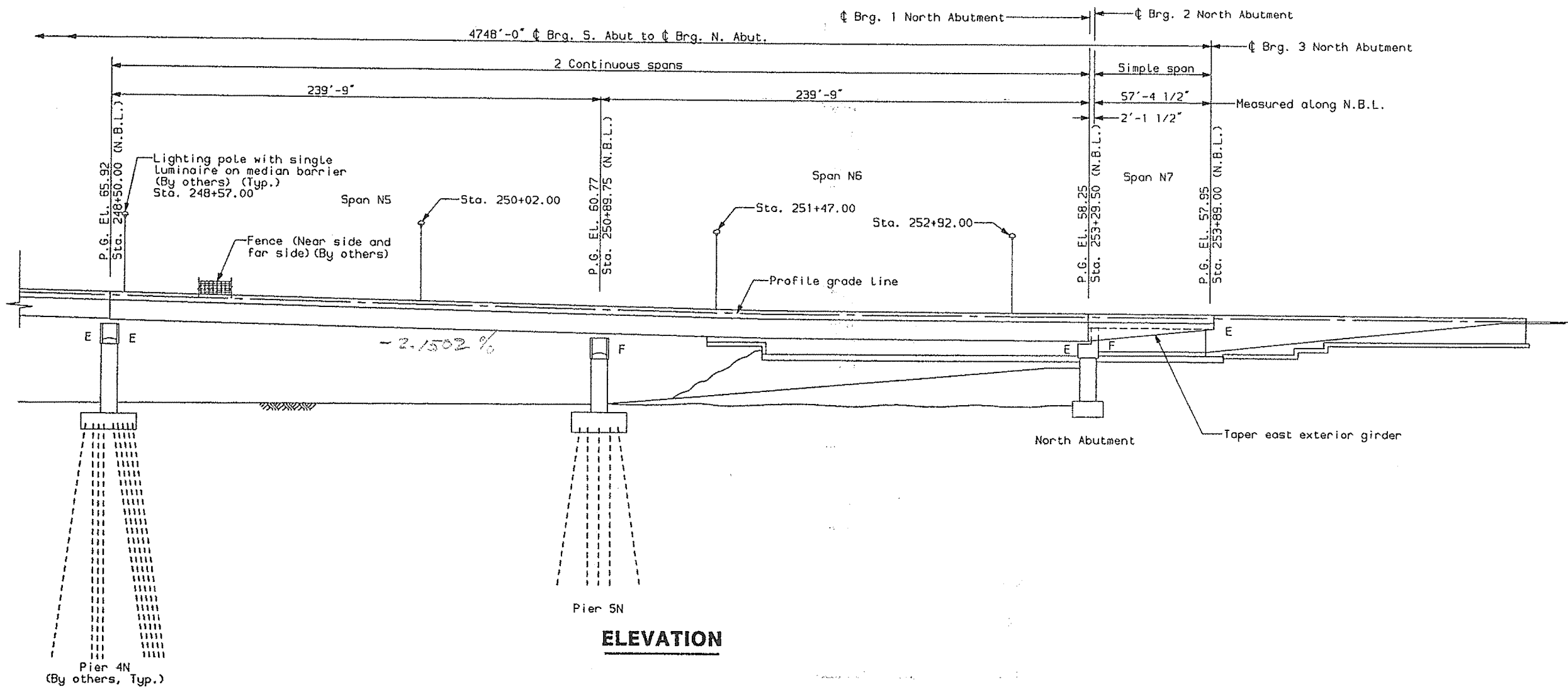
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REVISION		
FIELD CHANGES		



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NORTH APPROACH
STATE OF MA
DEPARTMENT OF TRANSPORTATION

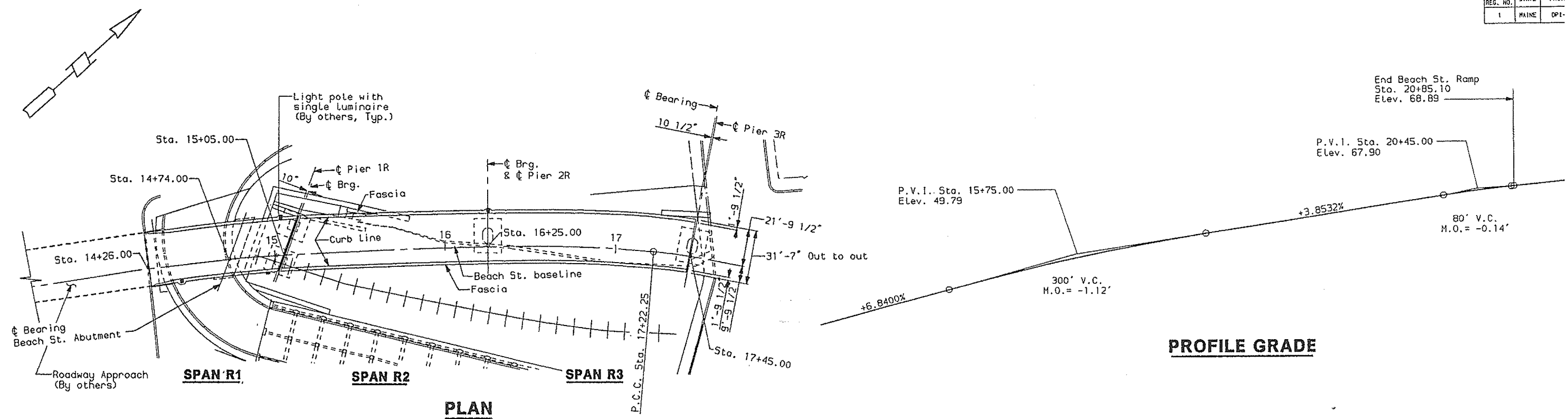
PORTLAND - S. PORT
OVER FORE
CUMBERLAND

NORTH APPROACH
PLAN & ELEVATION

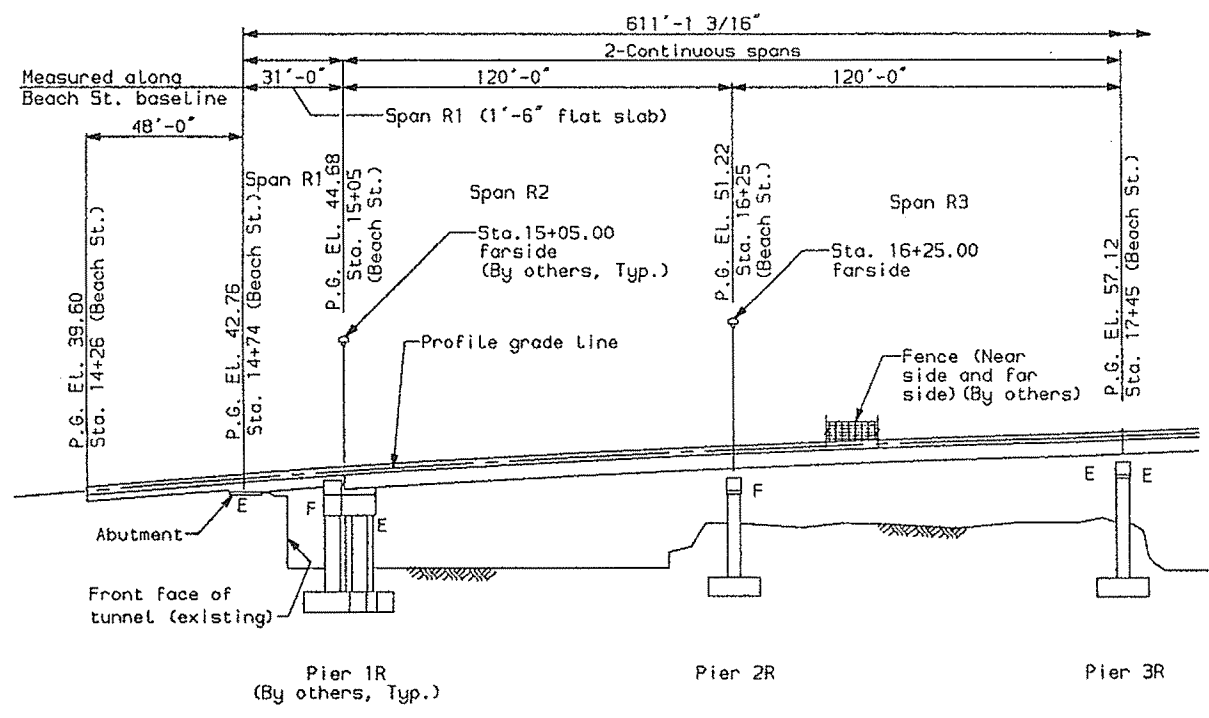
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DESIGN-DETAILED	CHECKED	DESIGN-DETAILED	CHECKED
REVISION	FIELD CHANGES	REVISION	FIELD CHANGES



PROFILE GRADE



NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

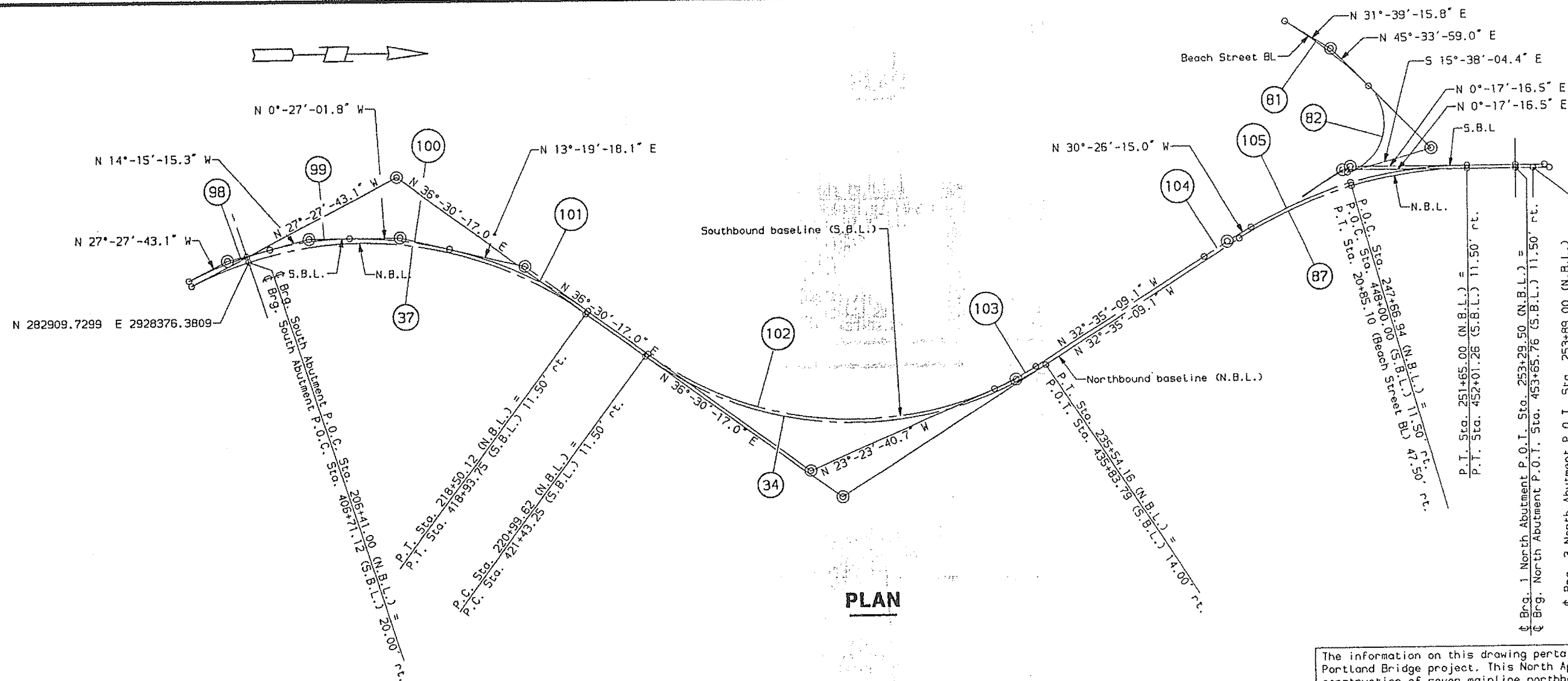
**PORTLAND - S. POR
OVER FORE
CUMBERLAND**

**BEACH STRE
PLAN & ELEV**

SHEET 8 OF 156 AUGUSTA

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	

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PLAN

The information on this drawing pertains to the overall Portland-Portland Bridge project. This North Approach contract includes the construction of seven mainline northbound superstructure spans and six mainline southbound superstructure spans extending from the north abutment to the north abutments. In addition, this contract includes the construction of the Beach Street Ramp abutment, and six superstructure spans extending from the Beach Street abutment to Pier 6R.

All regulatory, guide, warning, bascule warning signs, and all sign and signal support poles and structures for the north and south approach spans shown herein shall be provided and installed as per this contract.

Pull wires shall be provided with all electrical conduits installed in this contract.

NOTES:

(37) Indicates curve number.
Coordinates are reference State Coordinate Grid, North of 1983.

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - SOUTH PORTLAND
OVER FORD CUMBERLAND

KEY GEOMETRIC DATA

Curve No. 37 (N.B.L.)
P.I. Sta. 212+23.73 (Ahd.)
 $\Delta = 63^\circ-58'-00.2''$ Rt.
Dc = 4'-30'-00.0'
R = 1273.2396'
T = 795.09'
Lc = 1421.48'
E = 227.86'
SE = 0.038 ft./ft.
P.C.C. Sta. 204+28.64
P.T. Sta. 218+50.12

Curve No. 34 (N.B.L.)
P.I. Sta. 229+30.04 (Ahd.)
 $\Delta = 69^\circ-05'-26.1''$ Lt.
Dc = 4'-45'-00.0'
R = 1206.2269'
T = 830.42'
Lc = 1454.54'
E = 258.21'
SE = 0.039 ft./ft.
P.C. Sta. 220+99.62
P.T. Sta. 235+54.16

Curve No. 87 (N.B.L.)
P.I. Sta. 247+65.74 (Ahd.)
 $\Delta = 32^\circ-52'-25.6''$ Rt.
Dc = 4'-00'-00.0'
R = 1432.3945'
T = 422.58'
Lc = 821.84'
E = 61.03'
SE = 0.037 ft./ft.
P.C. Sta. 243+43.16
P.T. Sta. 251+65.00

Curve No. 98 (S.B.L.)
P.I. Sta. 406+05.14 (Ahd.)
 $\Delta = 13^\circ-12'-27.8''$ Rt.
Dc = 4'-25'-49.4'
R = 1293.2423'
T = 149.72'
Lc = 298.12'
E = 8.64'
SE = 0.038 ft./ft.
P.C.C. Sta. 404+55.42
P.C.C. Sta. 407+53.54

Curve No. 99 (S.B.L.)
P.I. Sta. 408+92.25 (Ahd.)
 $\Delta = 13^\circ-48'-13.5''$ Rt.
Dc = 5'-00'-00.0'
R = 1145.9097'
T = 138.71'
Lc = 276.07'
E = 8.36'
SE = 0.039 ft./ft.
P.C.C. Sta. 407+53.54
P.C.C. Sta. 410+29.61

Curve No. 100 (S.B.L.)
P.I. Sta. 412+02.60 (Ahd.)
 $\Delta = 13^\circ-46'-19.9''$ Rt.
Dc = 4'-00'-00.0'
R = 1432.4031'
T = 172.99'
Lc = 344.31'
E = 10.41'
SE = 0.037 ft./ft.
P.C.C. Sta. 410+29.61
P.C.C. Sta. 413+73.92

Curve No. 101 (S.B.L.)
P.I. Sta. 416+37.44 (Ahd.)
 $\Delta = 23^\circ-10'-58.9''$ Rt.
Dc = 4'-27'-35.0'
R = 1284.7334'
T = 263.52'
Lc = 519.83'
E = 26.75'
SE = 0.038 ft./ft.
P.C.C. Sta. 413+73.92
P.T. Sta. 418+93.75

Curve No. 102 (S.B.L.)
P.I. Sta. 428+31.63 (Ahd.)
 $\Delta = 59^\circ-53'-57.7''$ Lt.
Dc = 4'-47'-44.6'
R = 1194.7270'
T = 688.38'
Lc = 1249.02'
E = 184.13'
SE = 0.039 ft./ft.
P.C. Sta. 421+43.25
P.C.C. Sta. 433+92.27

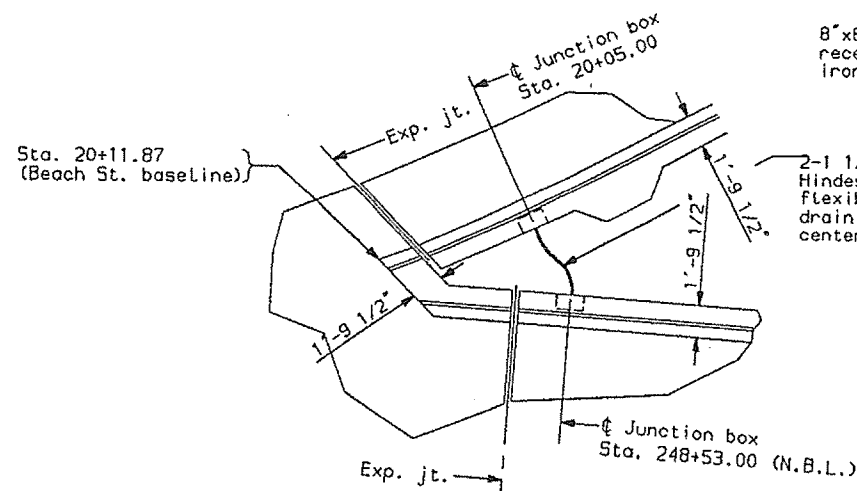
Curve No. 103 (S.B.L.)
P.I. Sta. 434+72.65 (Ahd.)
 $\Delta = 9^\circ-11'-28.4''$ Lt.
Dc = 5'-43'-46.5'
R = 1000.0000'
T = 80.38'
Lc = 160.42'
E = 3.23'
SE = 0.039 ft./ft.
P.C.C. Sta. 433+92.27
P.T. Sta. 435+52.68

Curve No. 104 (S.B.L.)
P.I. Sta. 443+33.23 (Ahd.)
 $\Delta = 2^\circ-08'-54.1''$ Rt.
Dc = 1'-08'-45.3'
R = 4999.9844'
T = 93.75'
Lc = 187.48'
E = 0.88'
SE = 0.037 ft./ft.
P.C. Sta. 442+39.48
P.C.C. Sta. 444+26.96

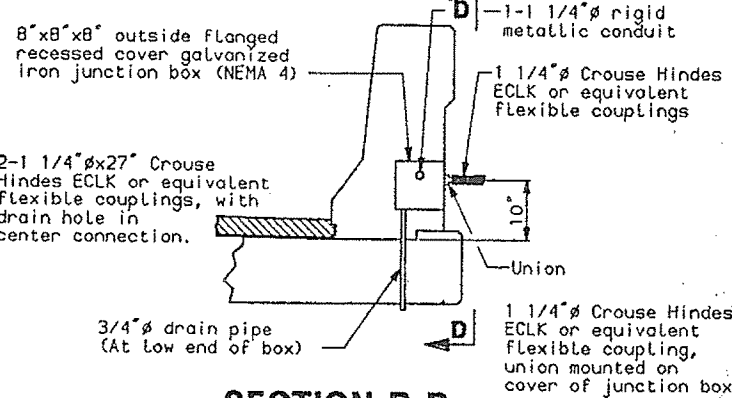
Curve No. 105 (S.B.L.)
P.I. Sta. 448+23.66 (Ahd.)
 $\Delta = 30^\circ-43'-31.5''$ Rt.
Dc = 3'-58'-05.3'
R = 1443.8945'
T = 396.70'
Lc = 774.30'
E = 53.50'
SE = 0.037 ft./ft.
P.C.C. Sta. 444+26.96
P.T. Sta. 452+01.26

Curve No. 81 (Beach Street BL)
P.I. Sta. 15+41.05 (Ahd.)
 $\Delta = 13^\circ-54'-43.1''$ Rt.
Dc = 3'-49'-11.0'
R = 1500.00'
T = 183.01'
Lc = 364.21'
E = 11.12'
SE = 0.023 ft./ft.
P.C. Sta. 13+58.04
P.C.C. Sta. 17+22.25

Curve No. 82 (Beach Street BL)
P.I. Sta. 20+18.15 (Ahd.)
 $\Delta = 118^\circ-47'-56.6''$ Rt.
Dc = 32'-44'-25.7'
R = 175.00'
T = 295.90'
Lc = 362.85'
E = 168.78'
SE = 0.04 ft./ft.
P.C.C. Sta. 17+22.25
P.T. Sta. 20+85.10

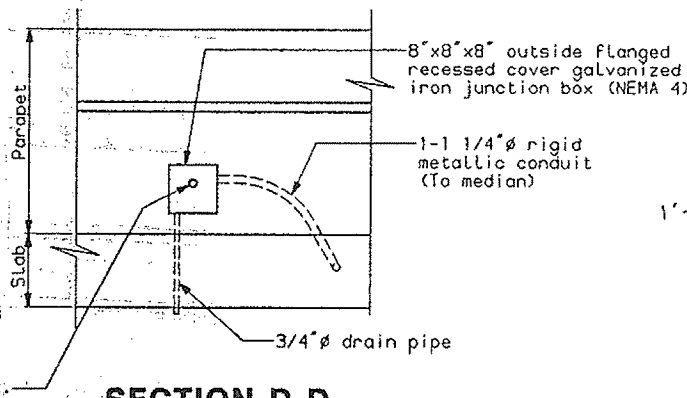


DETAIL A

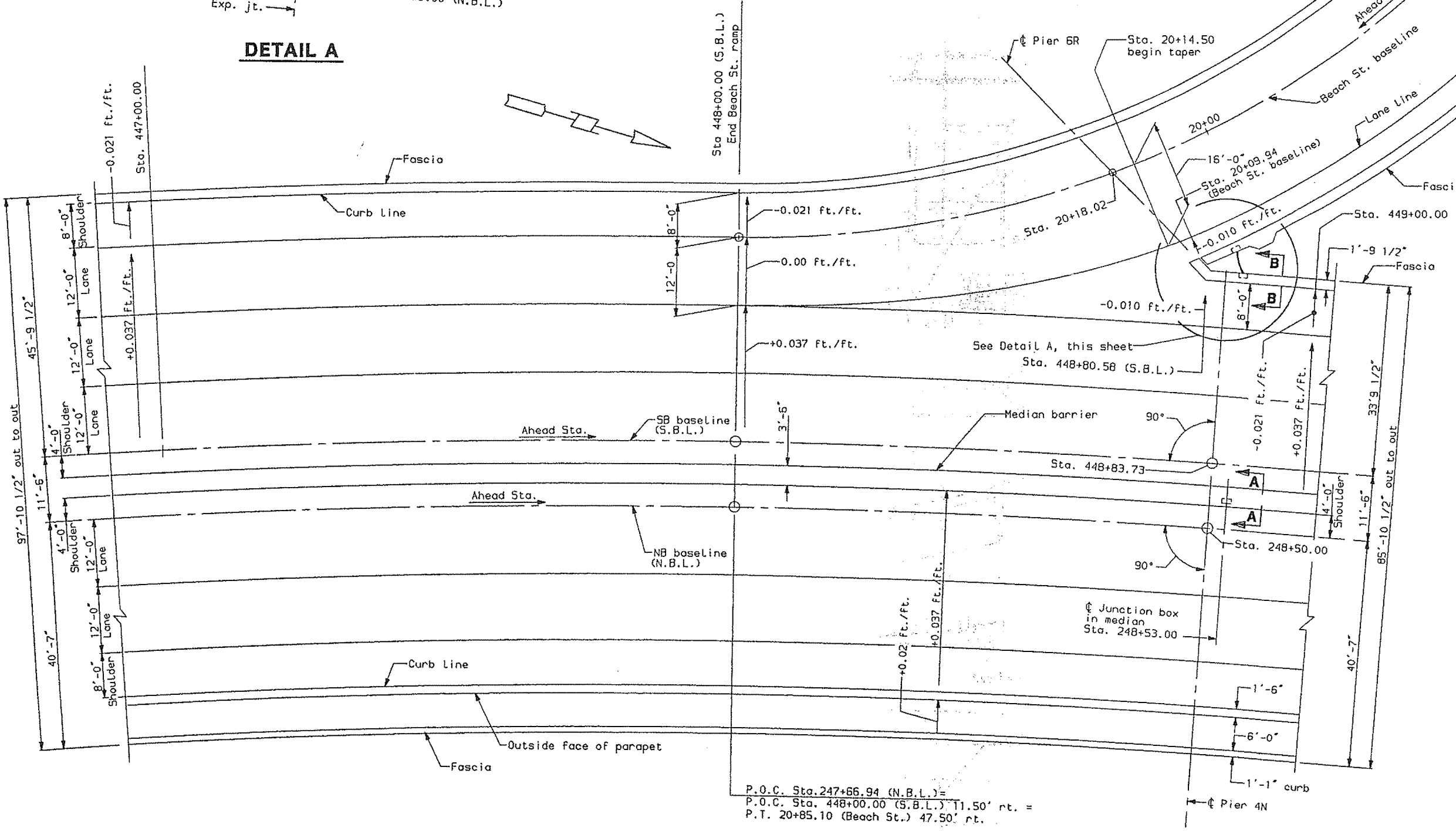


SECTION B-B

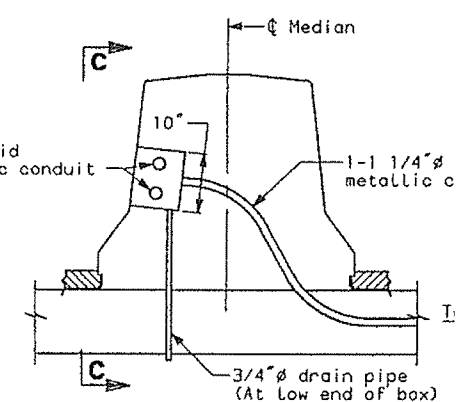
(Junction box on Beach St. parapet similar)



SECTION D-D

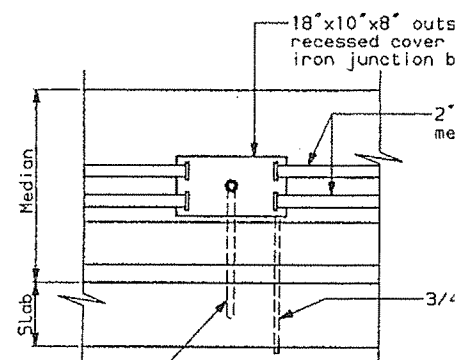


PLAN



SECTION A-A

Junction box at NBL Sta. 250(±) similar



SECTION C-C

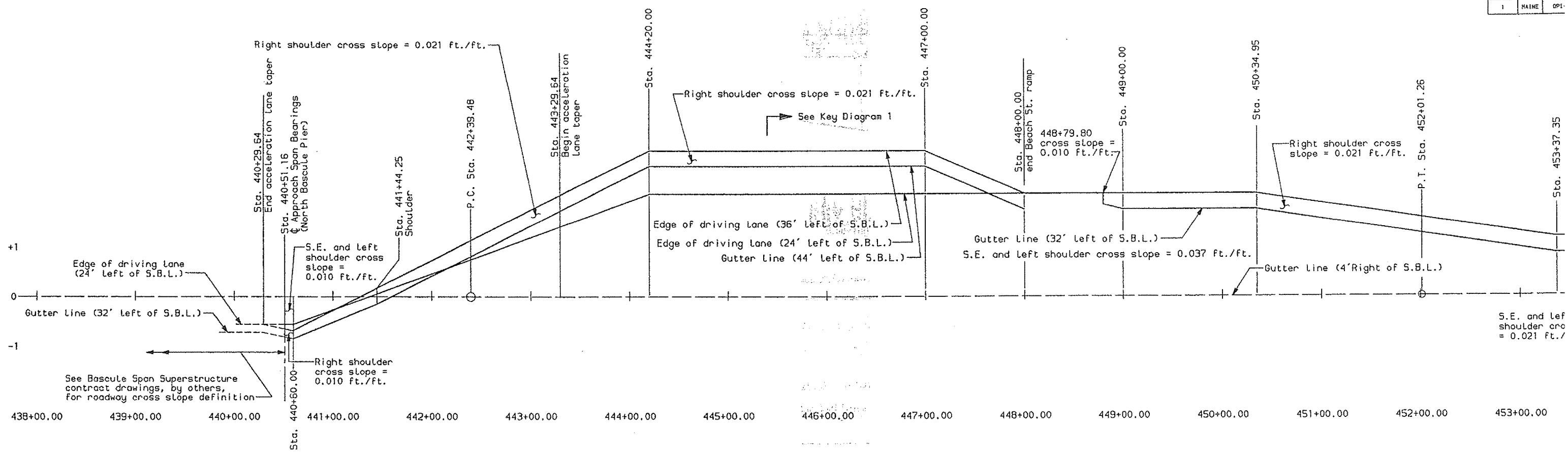
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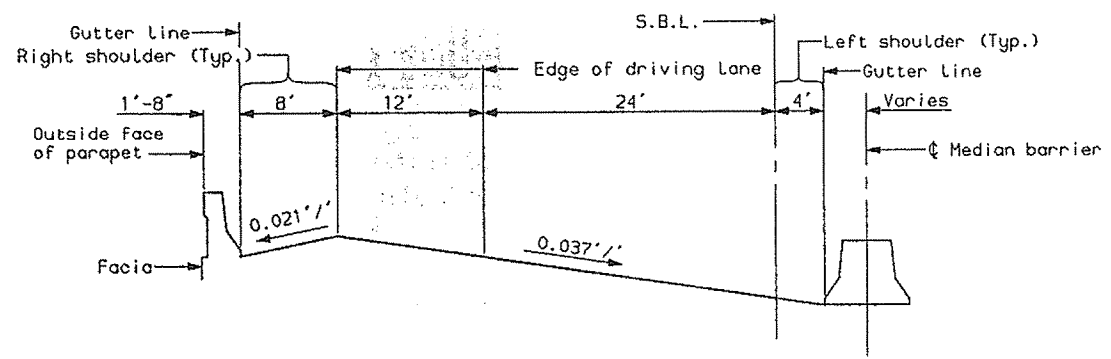
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PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	



SUPERELEVATION DIAGRAM SOUTHBOUND BASELINE (S.B.L.)

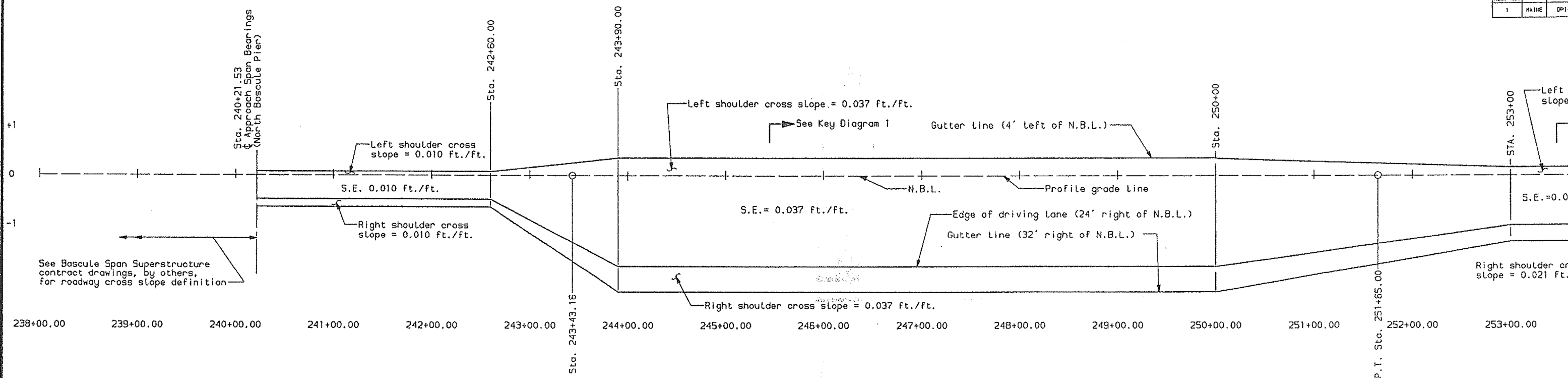


KEY DIAGRAM 1
(Looking Ahead Sta.)

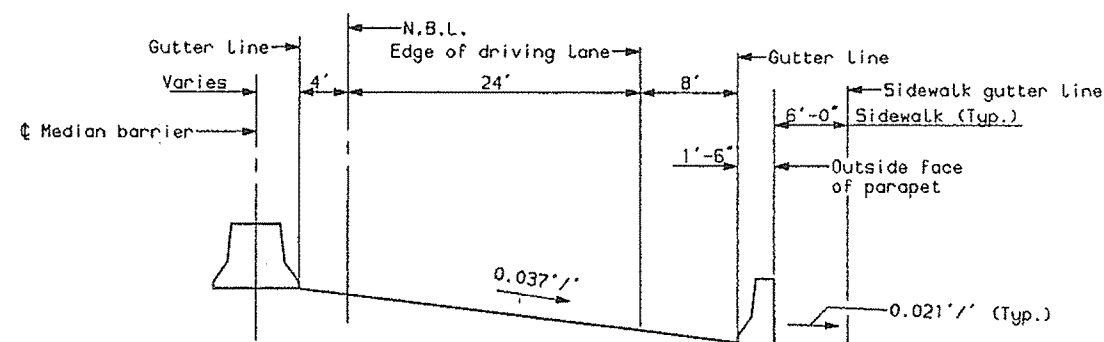
PRC	DESIGN	CHECKED	REVISION	FIELD CHANGES
DATE	BY	ELC	PDB	
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PLANS

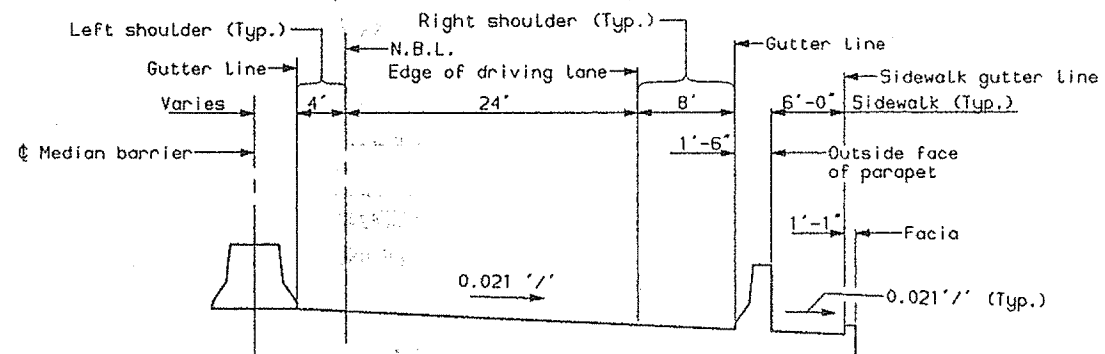
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SUPERELEVATION DIAGRAM NORTHBOUND BASELINE (N.B.L.)



KEY DIAGRAM 1
(Looking Ahead Sta.)



KEY DIAGRAM 2
(Looking Ahead Sta.)

NORTH APPROACH

STATE OF MAINE
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**PORTLAND - S. PORTLAND
OVER FORE
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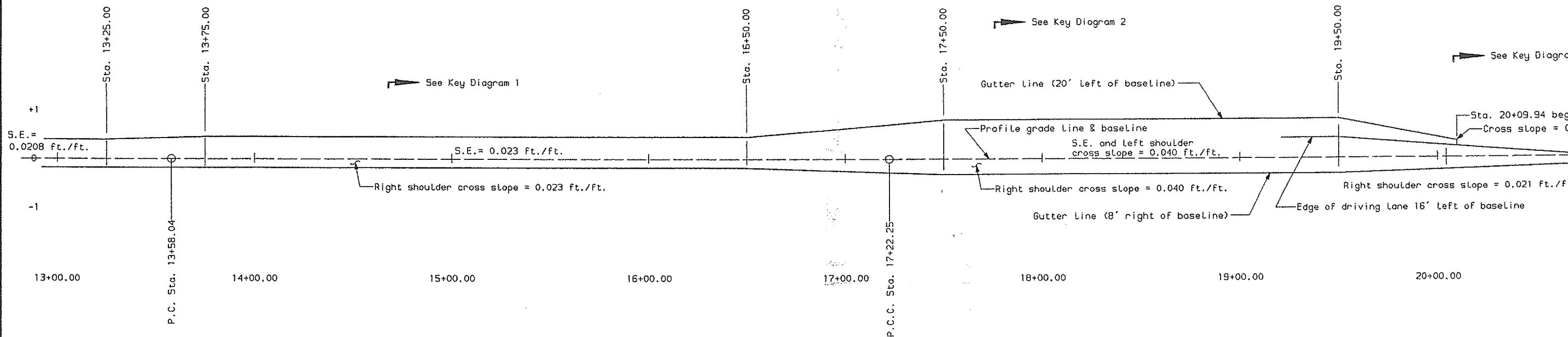
**NORTHBOUND
METHOD OF SUPERELEVATION**

SHEET 13 OF 156 AUGUSTA

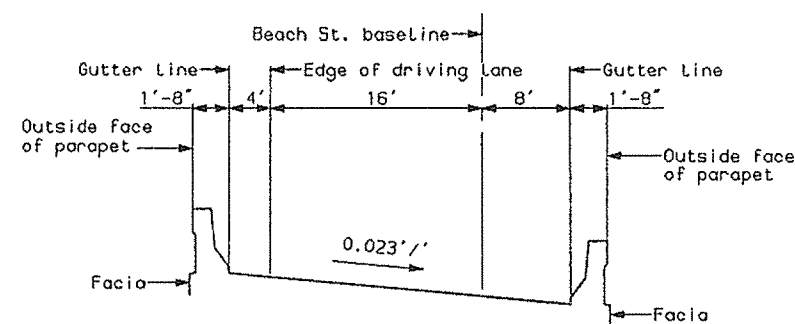
PROJECT ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	

PLANS

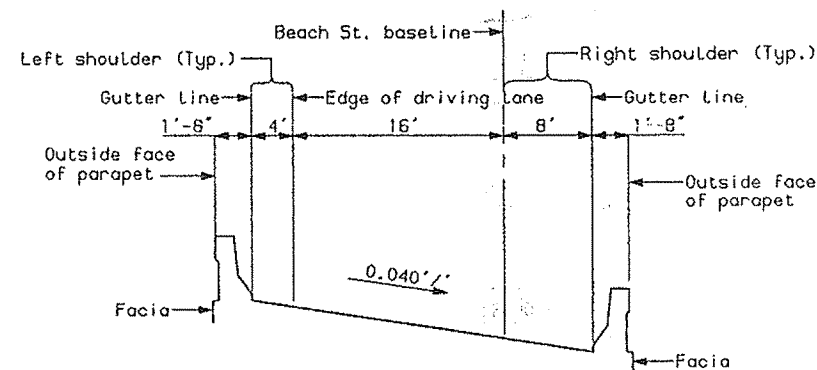
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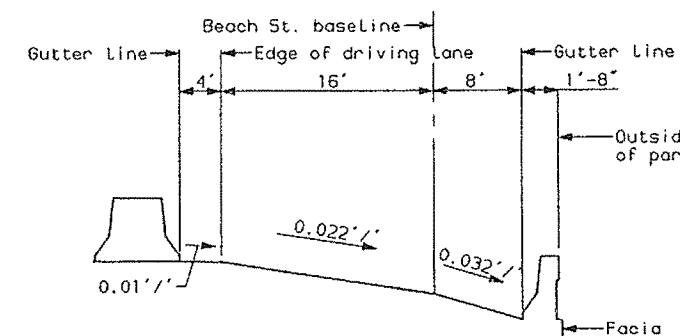
SUPERELEVATION DIAGRAM BEACH STREET BASELINE



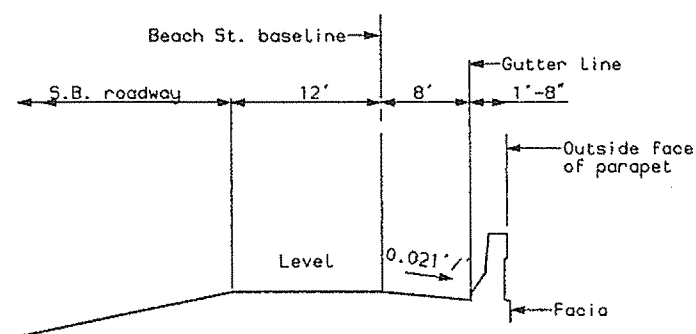
KEY DIAGRAM 1
(Looking Ahead Sta.)



KEY DIAGRAM 2
(Looking Ahead Sta.)



KEY DIAGRAM 3
(Looking Ahead Sta.)



KEY DIAGRAM 4
(Looking Ahead Sta.)

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SHEET 14 OF 156 AUGUS

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	

PLANS

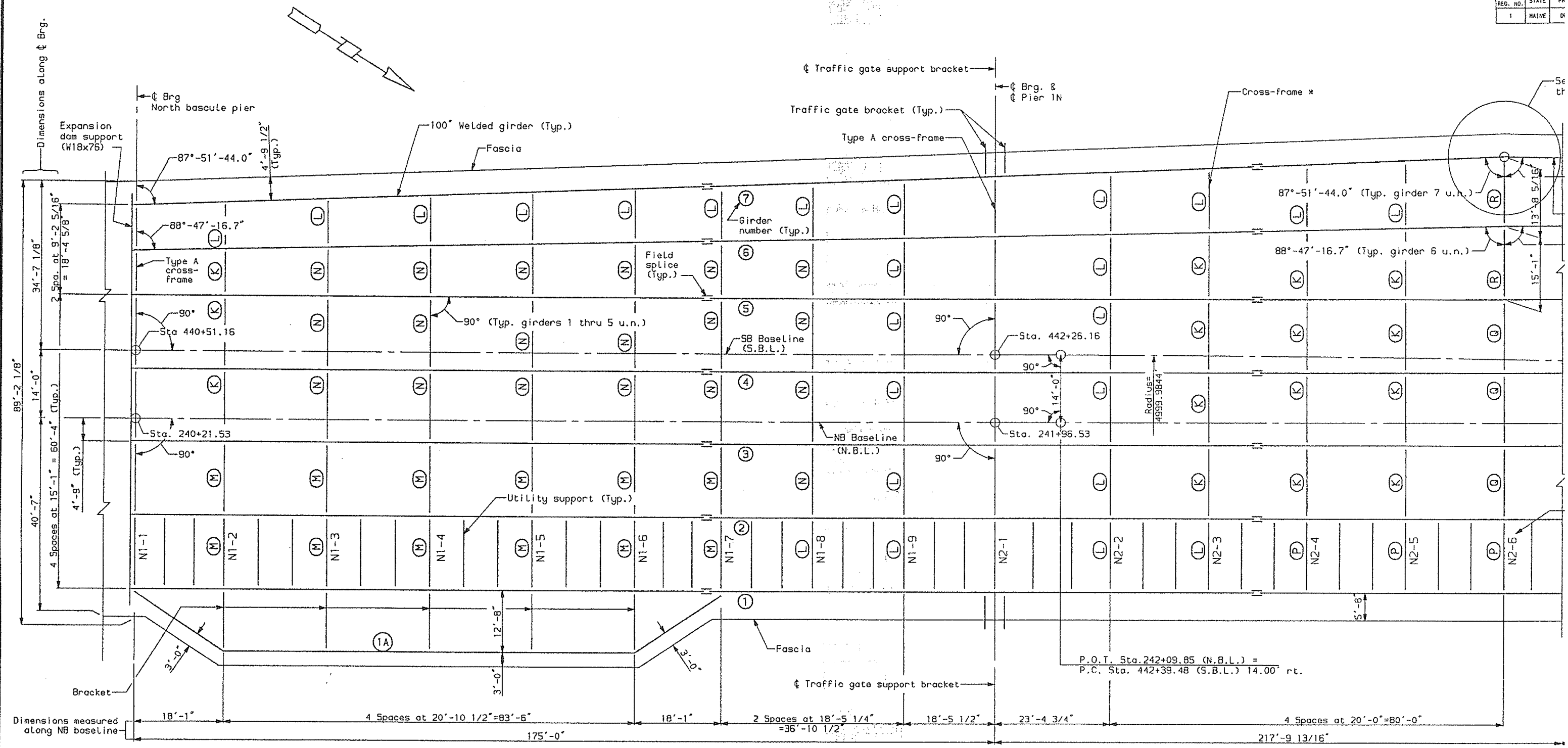
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PROJECT	DESIGN ENGINEER	BY	DATE
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	DESIGN-DETAILED	EAR	6-94
	CHECKED	PDB	
	REVISION		
	FIELD CHANGES		

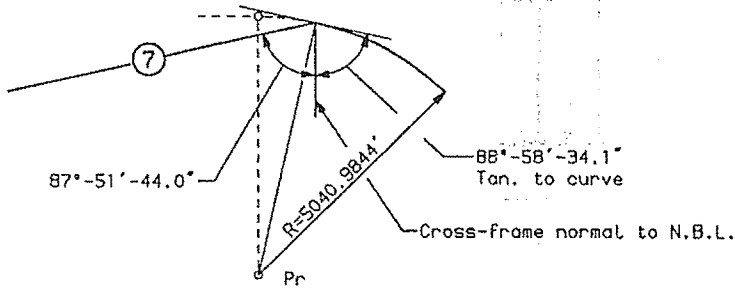
PLANS

4-14-94
FR. 0104-1



SPAN N1

SPAN N2



DETAIL A

At locations marked with an asterisk () the designated cross-frames shall be changed to a type CF1 cross-frame for the interior bays and to a type CF2 cross-frame for the exterior bays as required to accommodate the contractor's deck placement sequence. No extra compensation will be allowed for any cross-frames so substituted, and any additional costs will be considered incidental to the contract items.

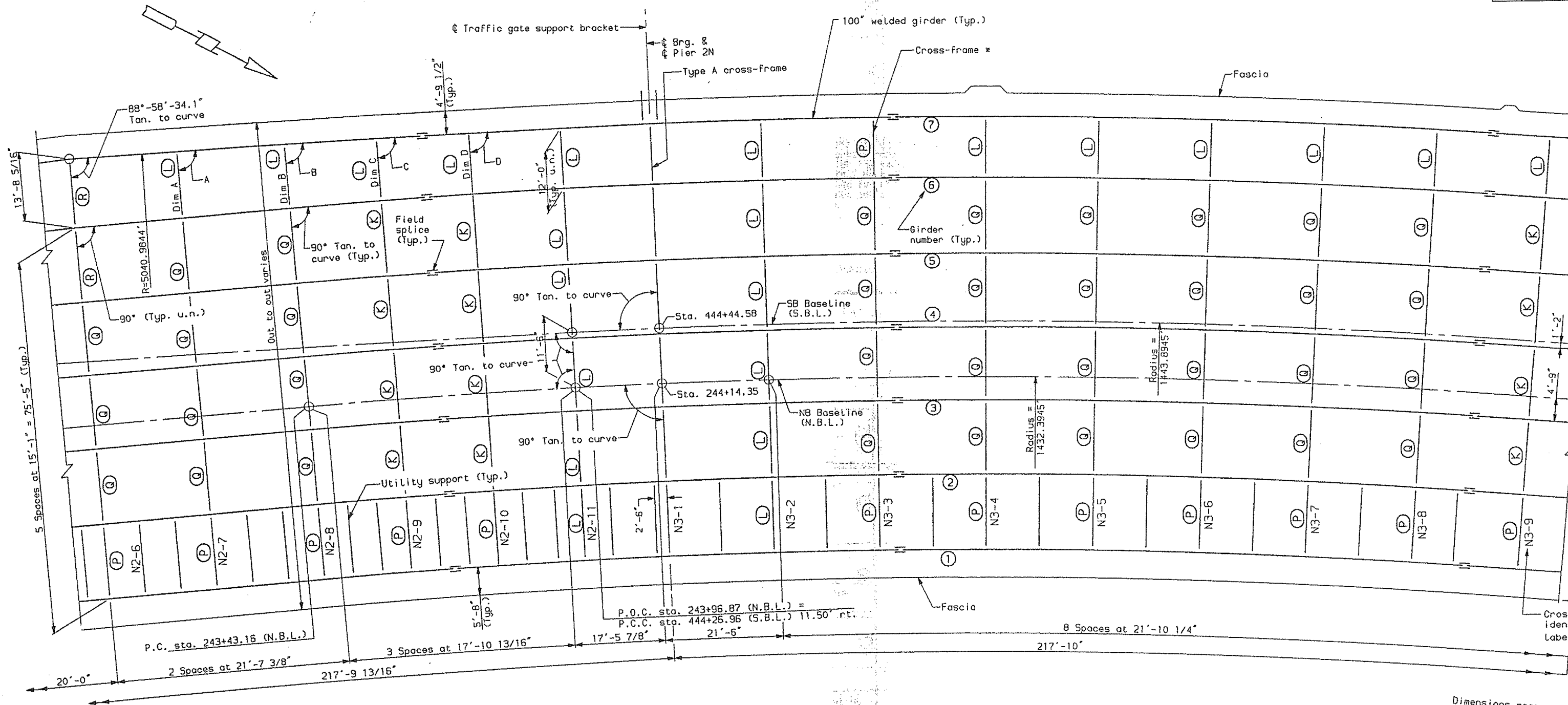
NOTE:
(X) Denotes cross-frame type.

NORTH APPROACH
STATE OF MAINE
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PORTLAND - S. PORTLAND OVER FORE CUMBERLAND

FRAMING SPANS N1

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SPAN N2

SPAN N3

Angle		Dim.	
A	88°-43'-49.4"	A	13'-2 9/16"
B	88°-29'-04.7"	B	12'-8 7/8"
C	88°-58'-22.9"	C	12'-3 15/16"
D	89°-29'-41.3"	D	12'-1"

All angles are tangent to girder 7 curve

At locations marked with an asterisk () the designated cross-frames shall be changed to a type CF1 cross-frame for the interior bays and to a type CF2 cross-frame for the exterior bays as required to accommodate the contractor's deck placement sequence. No extra compensation will be allowed for any cross-frames so substituted, and any additional costs will be considered incidental to the contract items.

NOTE:

(X) Denotes cross-frame type.

NORTH APPROX.

STATE OF
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PORTLAND - S. PO
OVER FOR
CUMBERLAND

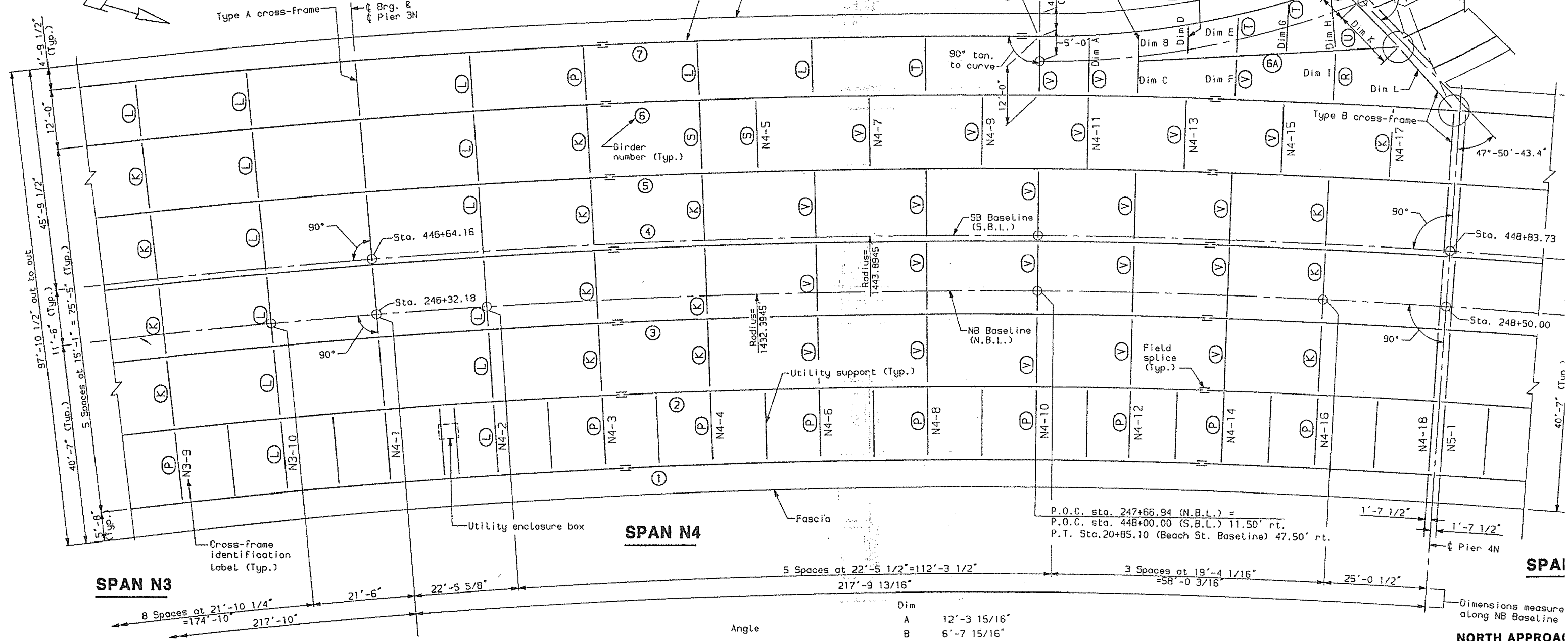
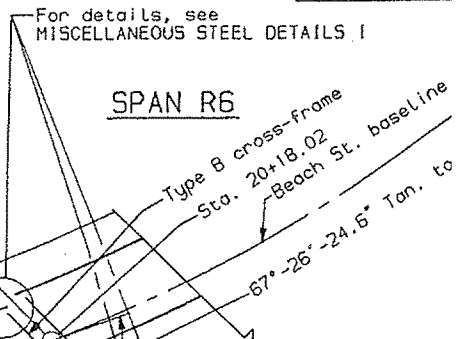
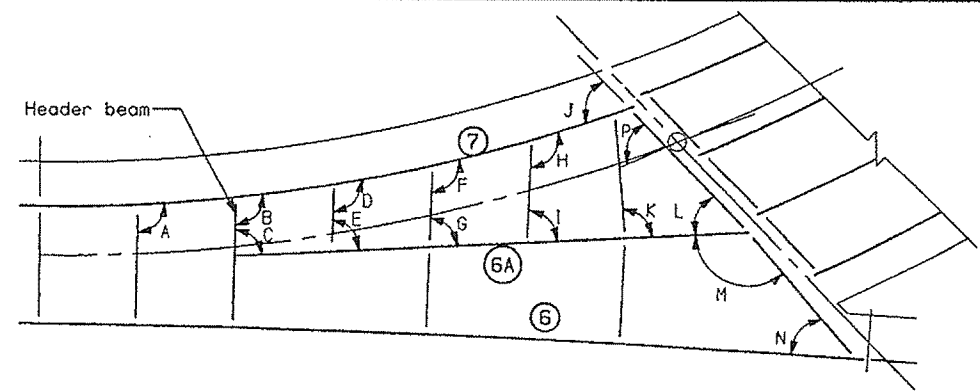
FRAMING
SPANS N1

SHEET 16 OF 156 AUGUST

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	PUB	1-94
CHECKED	PUB	6-94
REVISION		
FIELD CHANGES		

4-14-94

FR. n1n4-2



SPAN N4

SPAN N3

SPAN R6

Angle	
A**	93°-46'-4.16"
B**	97°-33'-6.81"
C	84°-59'-9.02"
D**	101°-22'-8.76"
E	84°-35'-56.63"
F**	105°-14'-15.74"
G	84°-12'-44.37"
H**	109°-10'-41.62"
I	83°-49'-31.85"
J**	66°-22'-15.19"
K	88°-09'-46.94"
L	49°-43'-3.11"
M	125°-17'-37.25"
N	47°-12'-23.83"
P**	67°-5'-6.61"

** Indicates tangent to curve

Dim	
A	12'-3 15/16"
B	6'-7 15/16"
C	6'-7 15/16"
D	7'-5 1/16"
E	8'-9 7/8"
F	8'-6 5/8"
G	10'-10 11/16"
H	13'-3 1/4"
I	10'-8 5/8"
J	5'-5 5/16"
K	12'-4 5/8"
L	16'-7 15/16"

NOTE:

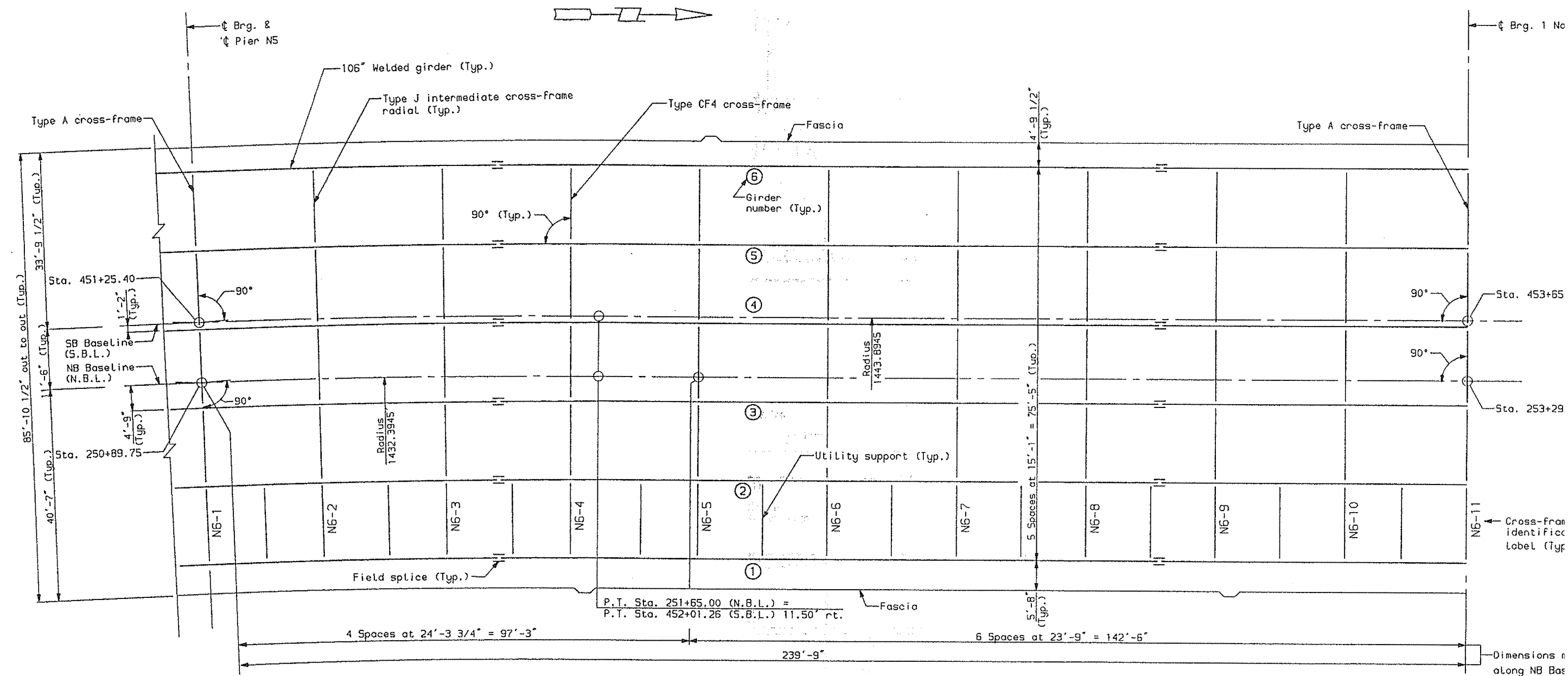
(X) Denotes cross-frame type.

NORTH APPROACH
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PORTLAND - S. PORT
OVER FORE
CUMBERLAND

FRAMING
SPANS N1-1

PLANS	DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES



SPAN N6

DESIGN-DETAILED	PDB	EAR	6-94
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REVISION			
FIELD CHANGES			

PLANS

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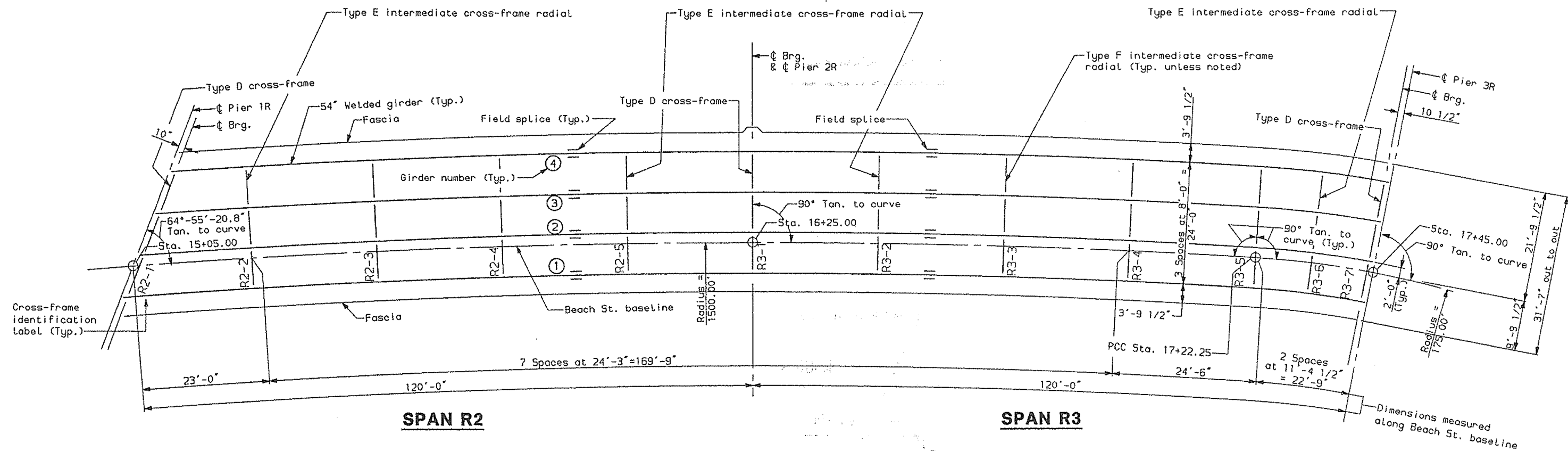
NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE RIVER
CUMBERLAND CREEK

FRAMING FOR
SPANS N5-N6

SHEET 19 OF 156 AUGUSTA, ME



PLAN	DESIGN - DETAIL	DWP	EAR	DATE
PLANS	CHECKED	PDB		6-94
	REVISION			6-94
	FIELD CHANGES			

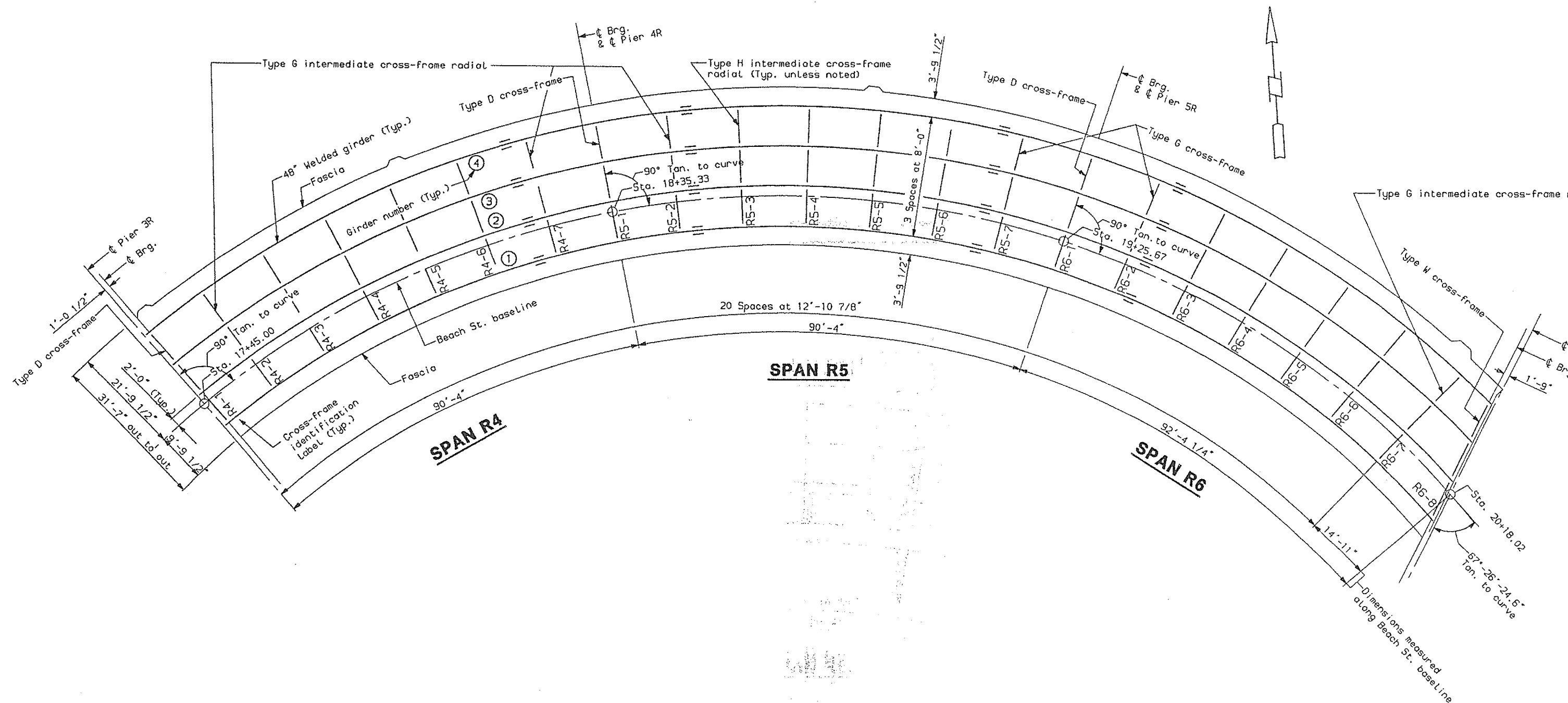
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NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANS

PORTLAND - S. PORT
OVER FORE
CUMBERLAND

FRAMING SPANS R2



DESIGN-DETAILED	DWP	EAR	6-94
CHECKED		PDB	5-94
REVISION			
FIELD CHANGES			

PLANS

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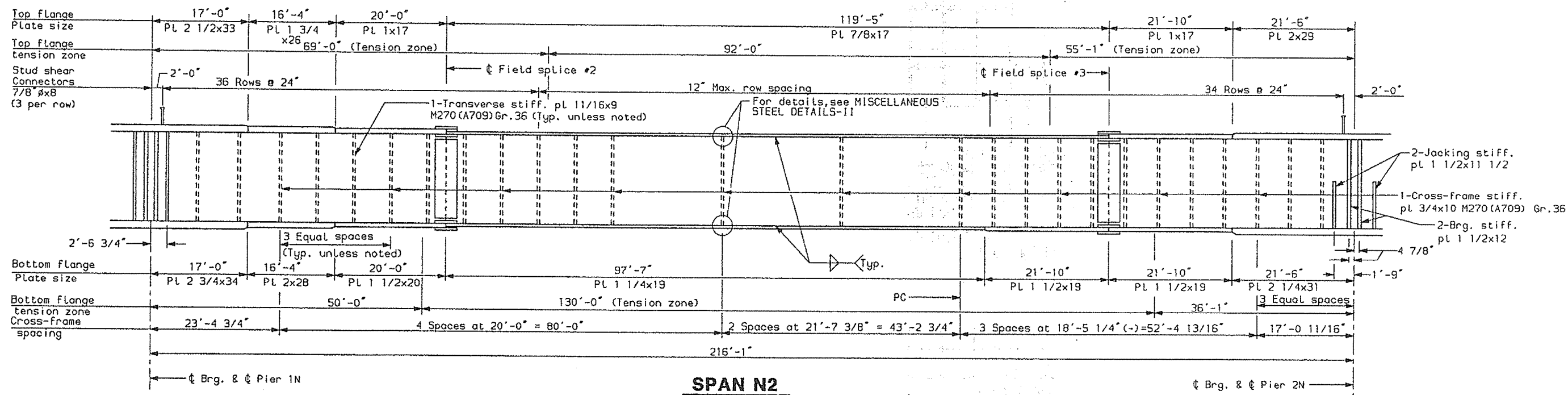
NORTH APPROACH

STATE OF MA
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PORTLAND - S. PORT
OVER FORE
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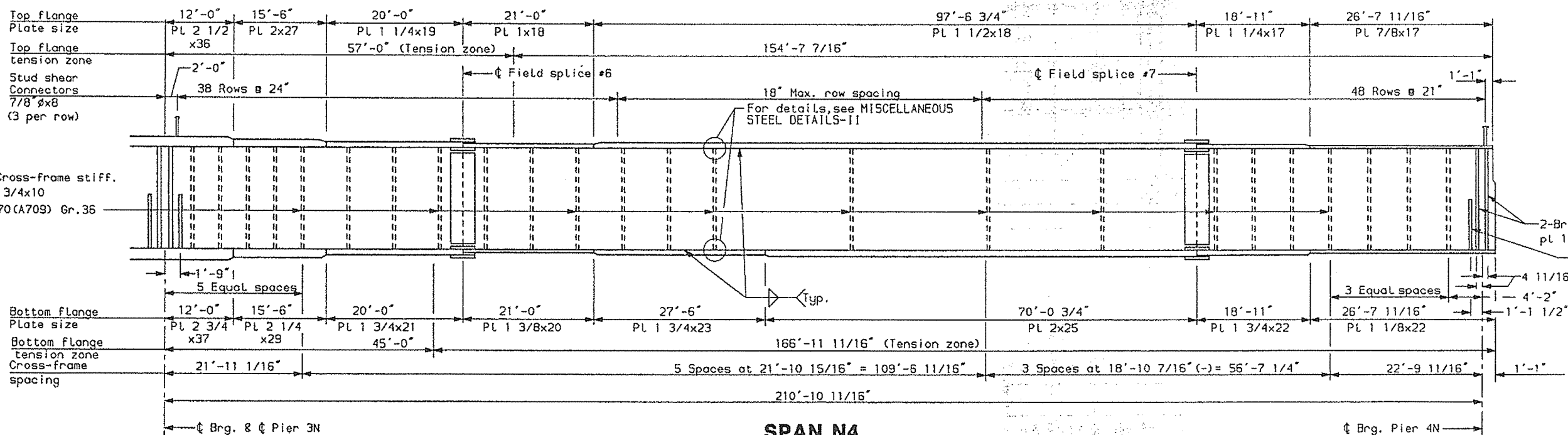
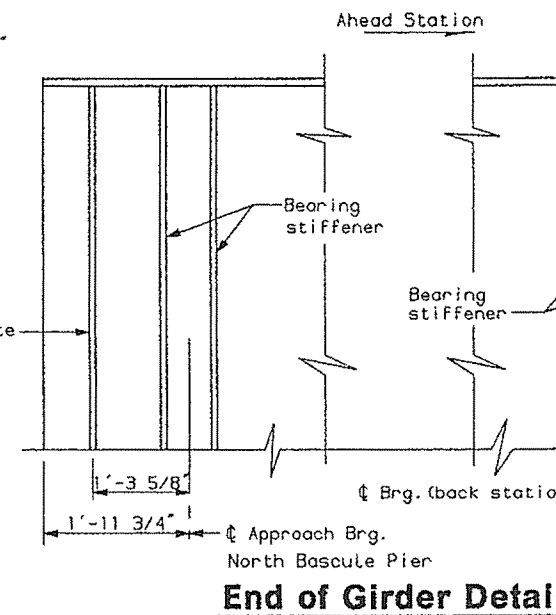
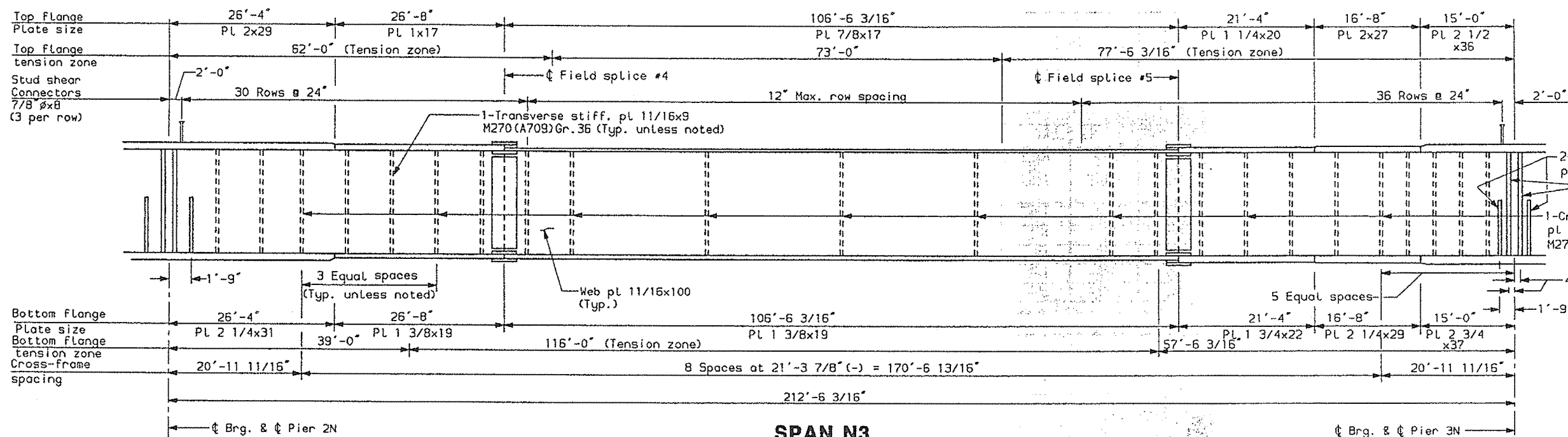
FRAMING I
SPANS R4

SHEET 22 OF 156 AUGUSTA,



Utility supports not show

SHEET 23 OF 156 AUGUSTA,



NOTES:
Utility supports not

TABLE OF UNFACTORED REACTIONS (kips)				
	N. Bascule Pier	Pier 1N	Pier 2N	P
DL+SDL	372	946	787	1
LL (Max.)	123	189	184	
LL (Min.)	-31	-40	-59	
Total (Max.)	495	1135	971	1
Total (Min.)	341	906	728	

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	10176	-20680	5400	-13237	3920	-21603	11746
SDL	4261	-7813	2630	-6087	1940	-8661	5155
LL+I (Positive)	11317	3114	8184	4494	7176	3924	8483
LL+I (Negative)	-4695	-12565	-4988	-11418	-4203	-12959	-2730
Total (Pos.LL+I)	25754	-25379	16274	-14830	13036	-26540	25384
Total (Neg.LL+I)	9742	-41058	3102	-30742	1657	-43423	14171

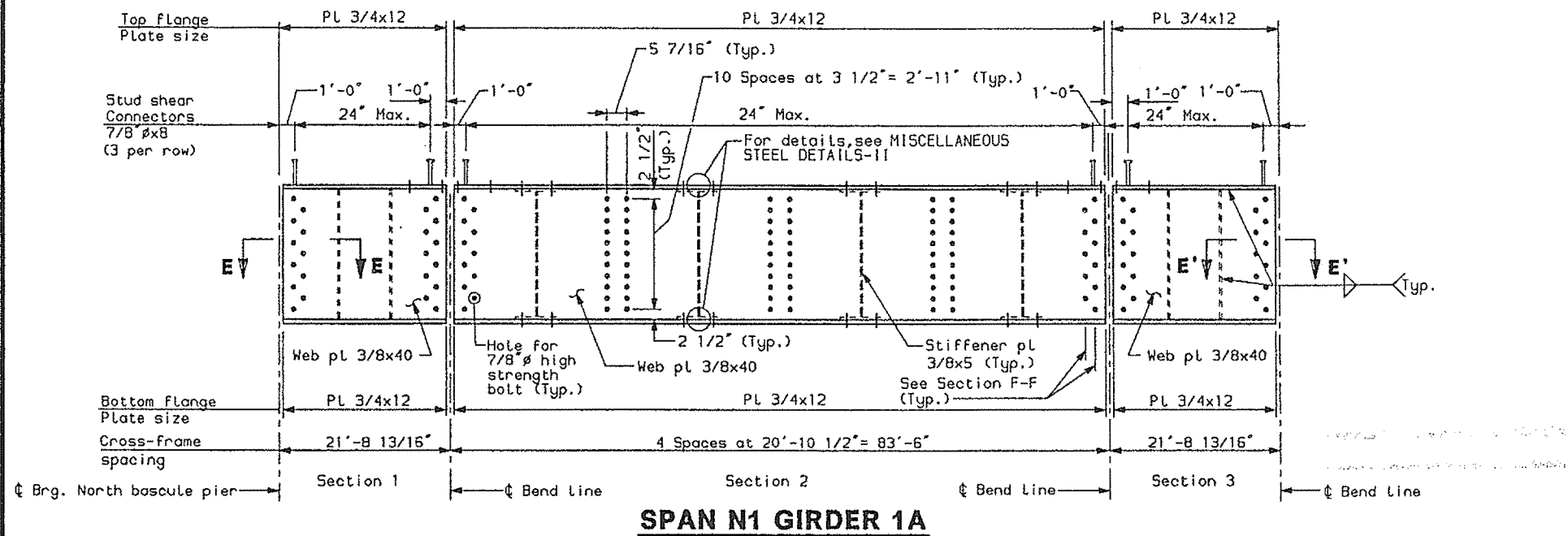
TABLE OF FACTORED MAXIMUM SHEARS (kips)								
	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	484	-637	585	-525	498	-607	697	-403
LL+I (Positive)	310	26	267	28	299	78	793	22
LL+I (Negative)	-78	-310	-24	-314	-26	-882	-69	-178
Total (Pos.LL+I)	794	-611	852	-497	797	-529	1490	-381
Total (Neg.LL+I)	406	-947	561	-839	472	-1489	628	-581

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**PORTLAND - S. PORT
OVER FORD
CUMBERLAND**

**ELEVATION G
SPANS N1-**



NOTES:

Structural Metalwork and Bolted Connections

Provide structural steel conforming to AASHTO M270 (ASTM A709), Gr. 50 except when noted otherwise.

Heat curving in accordance with Supplemental Specifications Section 504 or flame cutting of flange plates for curved girders will be permitted.

Flange plates for the following curved girders shall be flame cut to conform to the radius of the girder centerline, heat curved will not be allowed.

- Span R3 - girders 1, 2, 3, and 4 from Sta. 17+22.25 to Sta. 17+45.00
- Span R4 - girders 1, 2, 3, and 4
- Span R5 - girders 1, 2, 3, and 4
- Span R6 - girders 1, 2, 3, and 4
- Spans N1-N4 - girder 7, from field splice adjacent to point of reverse horizontal curve to end of girder at Pier BR.

Filler plates may be AASHTO M270 (ASTM A709), grade 36 steel and mill tests for filler plate material will not be required.

Bearing stiffeners shall be plumb after erection and dead load deflection of the structure.

Intermediate web stiffeners or intermediate cross-frame connection plates shall be normal to the top flange, unless otherwise shown on the plans.

The bearing details are shown for normal temperature of 45° F.. No separate payment will be made for resetting bearings to the final position if adjustments are required.

ALL fasteners are 7/8-inch diameter AASHTO M164 (ASTM A325) high strength bolts, except as noted.

Bolted connections are designed as slip-critical joints with all faying surfaces having a Class B slip coefficient.

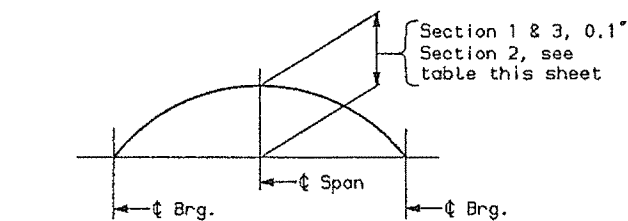
Welding

No transverse butt-weld splices will be allowed in the flange plates or web plates within 10 feet or 10 percent of the span length (whichever is greater) from the points of maximum positive moment or maximum negative moment, unless otherwise shown on the plans.

Butt-weld splices in flanges shall be not less than three feet from transverse butt-welds in the web plates and no transverse web or flange butt-welds shall be located within three feet from transverse welds (e.g. connection plate to welds) on either flange or web, unless otherwise shown on the plans.

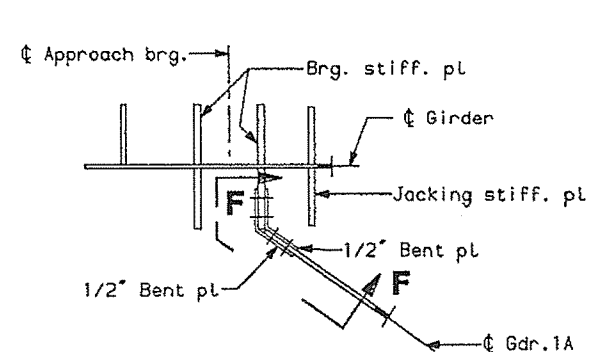
Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be not less than three feet in length, unless otherwise shown on the plans.

Notch toughness requirements, as specified in Table S1.2 of AASHTO Interim Specifications for Transportation Materials and Methods of Sampling and Testing Part I - Interim Specifications (1992) are mandatory for all main load-carrying members. For the purpose of this specification, main load-carrying members shall be those parts of the structure carrying calculated stresses, including web flanges of welded plate girders, rolled shapes used as girders, floorbeam stringers, all components of cross-frames including girder web connection and girder bearing stiffeners, and all splice material for the listed members other than filler plates.



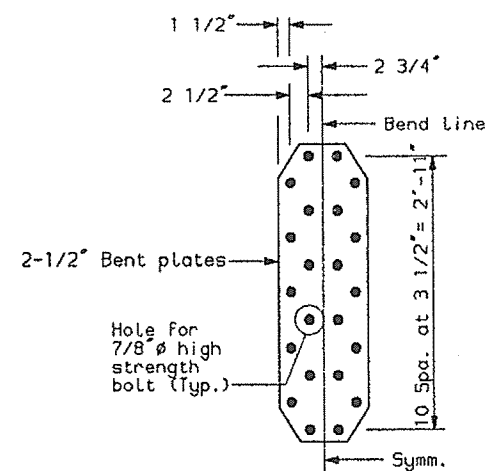
CAMBER DETAIL GIRDER 1A

Girder 1A	1/10 th Point Camber(in.)
Cross-frame N1-2	0.00
0.1	-0.62
0.2	1.10
0.3	1.44
0.4	1.65
0.5	1.72
0.6	1.65
0.7	1.45
0.8	1.10
0.9	0.62
Cross-frame N1-6	0.00



SECTION E-E

(Section E'-E' similar)



SECTION F-F

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT

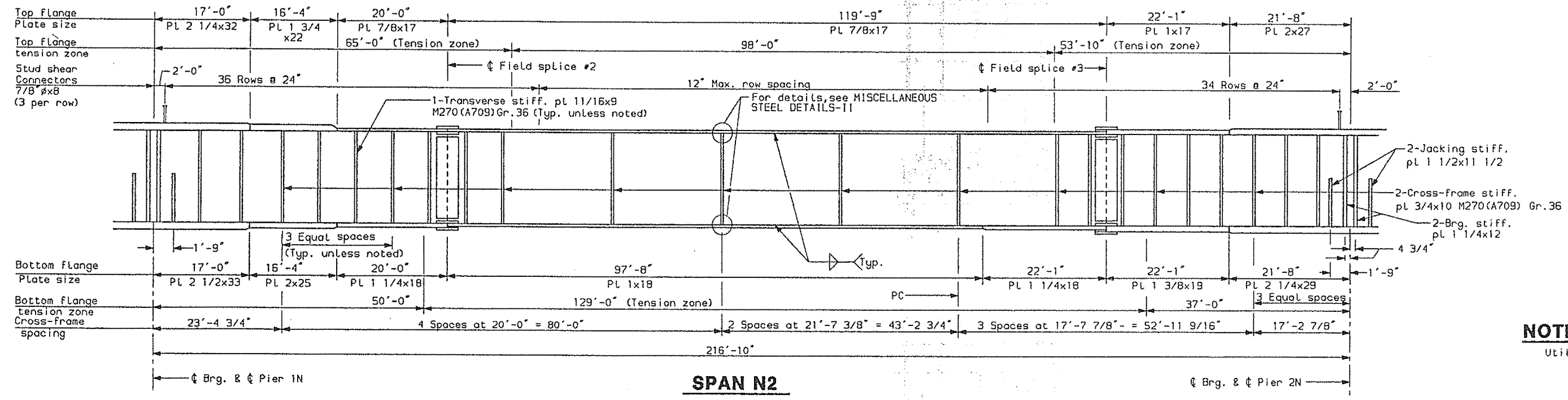
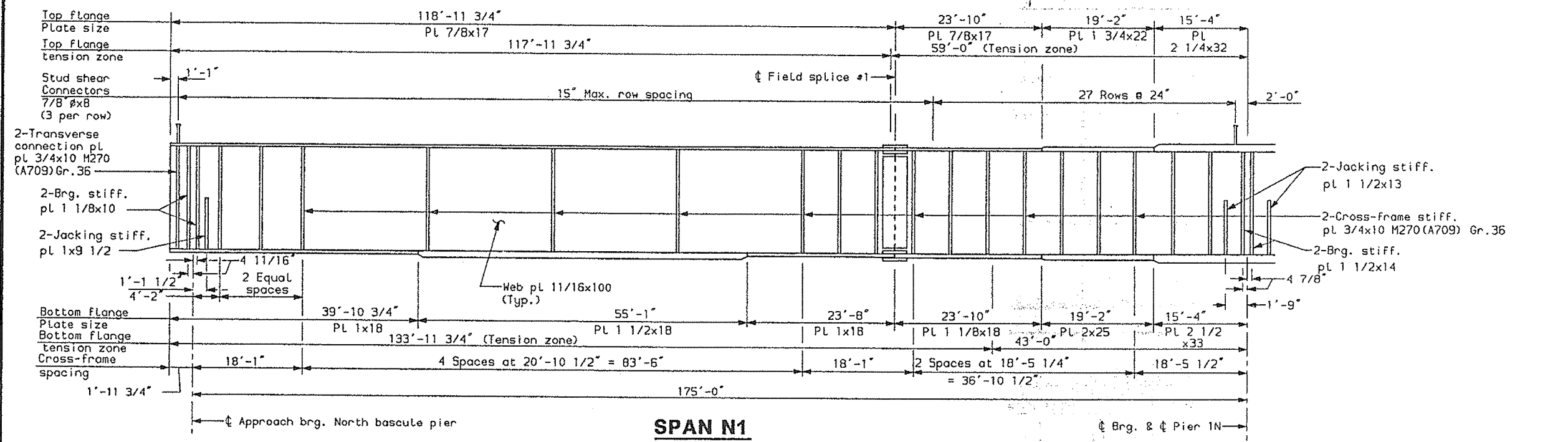
OVER FORE RIVER

CUMBERLAND RIVER

ELEVATION GIRDERS

SPANS N1-N4

SHEET 25 OF 156 AUGUSTA, ME



NOTES:

Utility and threaded bar supp

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FOREST
CUMBERLAND**

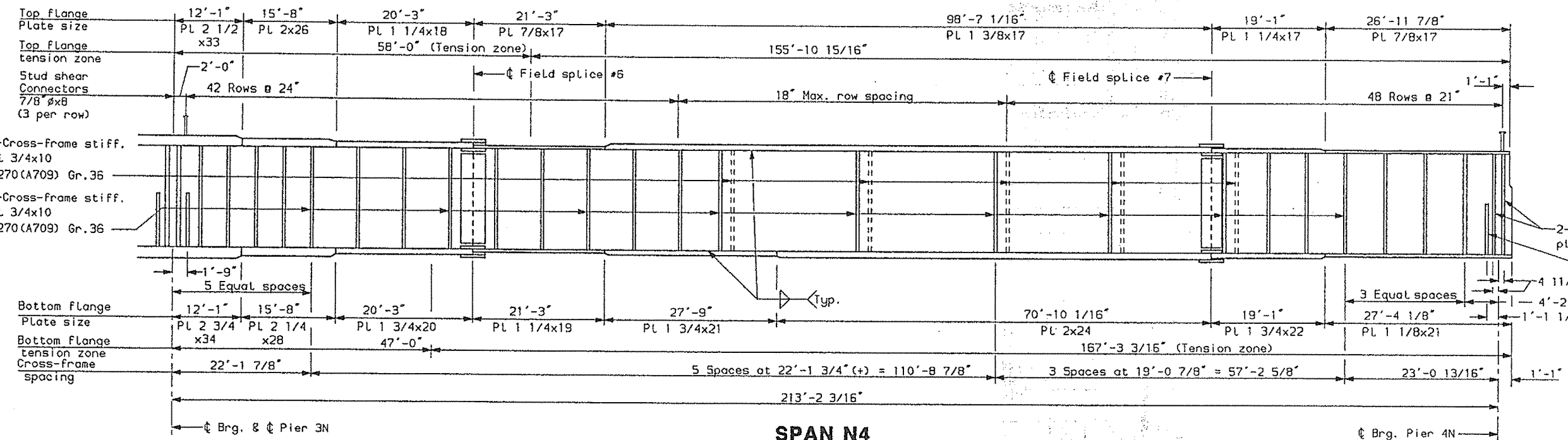
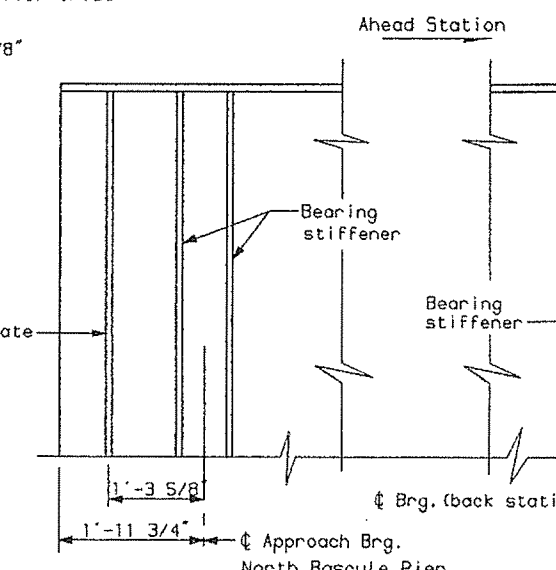
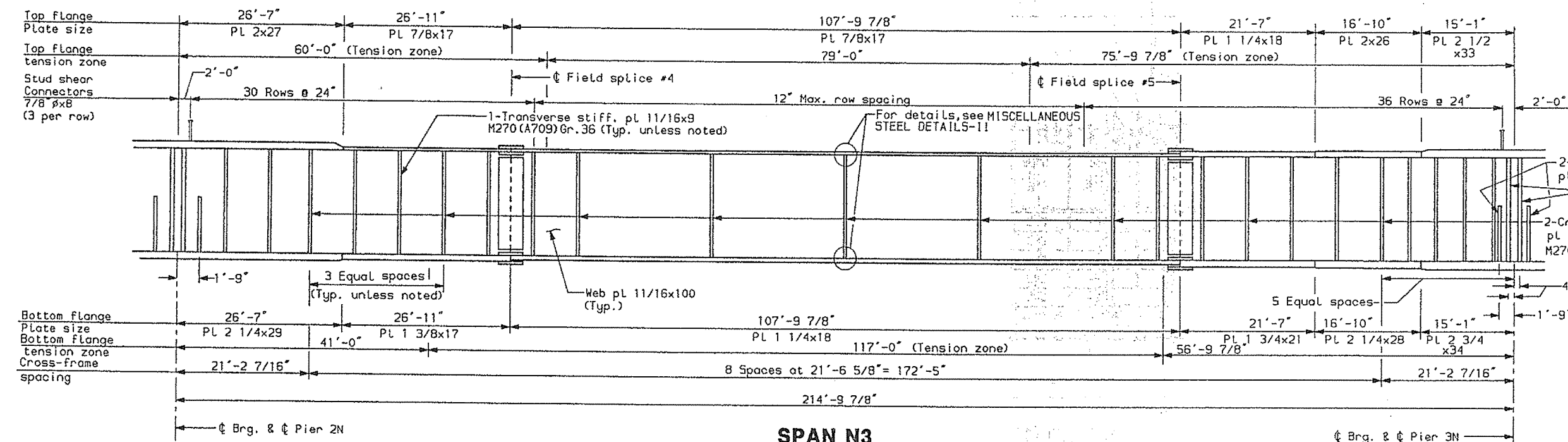
**ELEVATION OF
SPANS N1**

SHEET 26 OF 156 AUGUST 1971

DESIGN	BY	DATE
DESIGN-DETAILED	ELS	6-94
CHECKED	POB	6-94
REVISION		
FIELD CHANGES		

PLANS

014.862a



NOTES:

Utility and threaded bar supply

TABLE OF UNFACTORED REACTIONS (kips)				
	N. Bascule Pier	Pier 1N	Pier 2N	P
DL+SDL	225	861	720	
LL (Max.)	92	202	196	
LL (Min.)	-12	-20	-31	
Total (Max.)	317	1063	916	1
Total (Min.)	213	841	689	

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	7209	-18654	5140	-13117	3734	-20743	11632
SDL	2605	-6553	2302	-5389	1749	-7639	4807
LL+I (Positive)	6981	1740	6587	2825	6179	1822	8474
LL+I (Negative)	-2559	-10933	-3218	-10411	-3205	-11873	-1952
Total (Pos.LL+I)	16795	-23467	14029	-15681	11662	-26560	24913
Total (Neg.LL+I)	7255	-36140	4224	-28917	2278	-40255	14487

TABLE OF FACTORED MAXIMUM SHEARS (kips)								
	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	293	-576	537	-478	458	-546	619	-393
LL+I (Positive)	232	28	303	28	314	28	332	17
LL+I (Negative)	-28	-327	-26	-321	-28	-316	-28	-223
Total (Pos.LL+I)	525	-548	840	-450	772	-518	951	-376
Total (Neg.LL+I)	265	-903	511	-799	430	-862	591	-616

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT OVER FORE CUMBERLAND

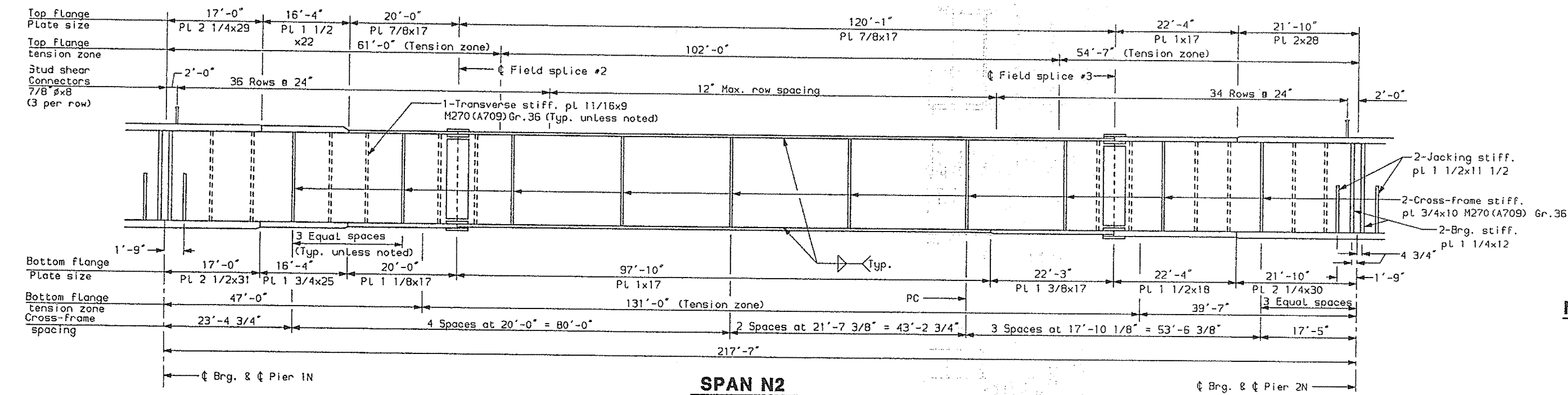
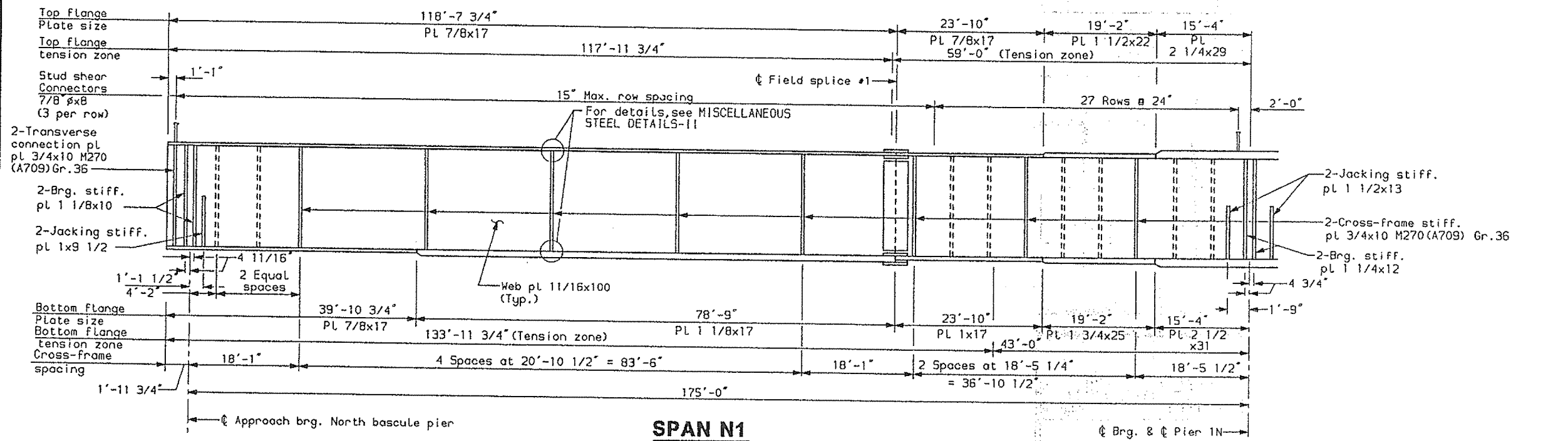
ELEVATION G SPANS N1-N4

SHEET 27 OF 156 AUGUSTA, ME

DATE: 6-94
BY: PDB
DESIGN-DETAILED: PDB
CHECKED: PDB
REVISION: PDB
FIELD CHANGES: PDB

PLANS

n1n4.es2b



NOTES:

Threaded bar supports not

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE R
CUMBERLAND C

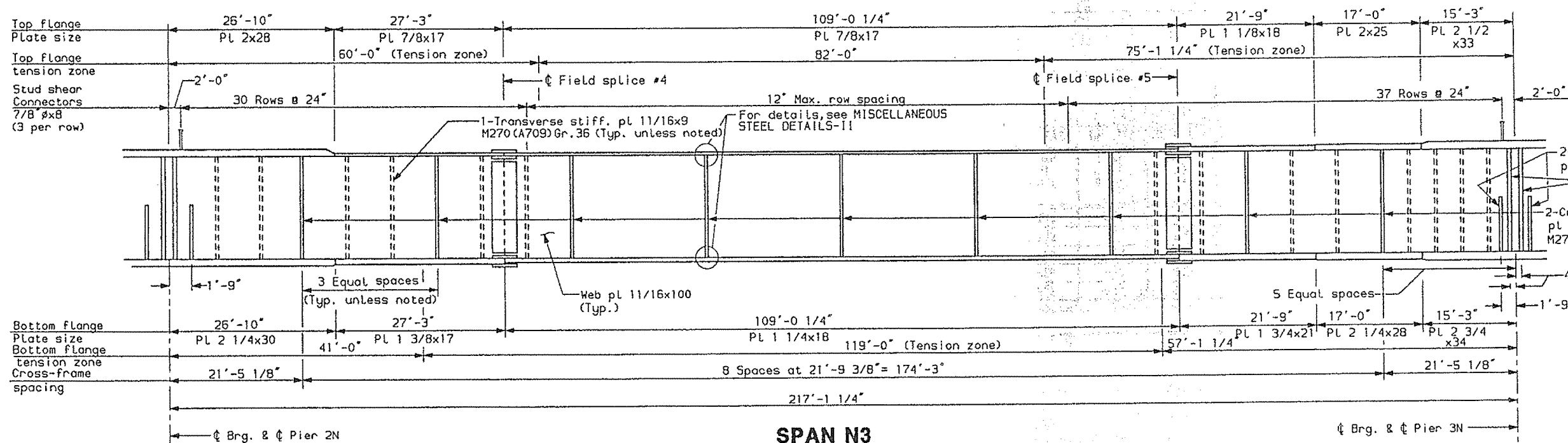
ELEVATION GI
SPANS N1-N

SHEET 28 OF 156 AUGUSTA, 1

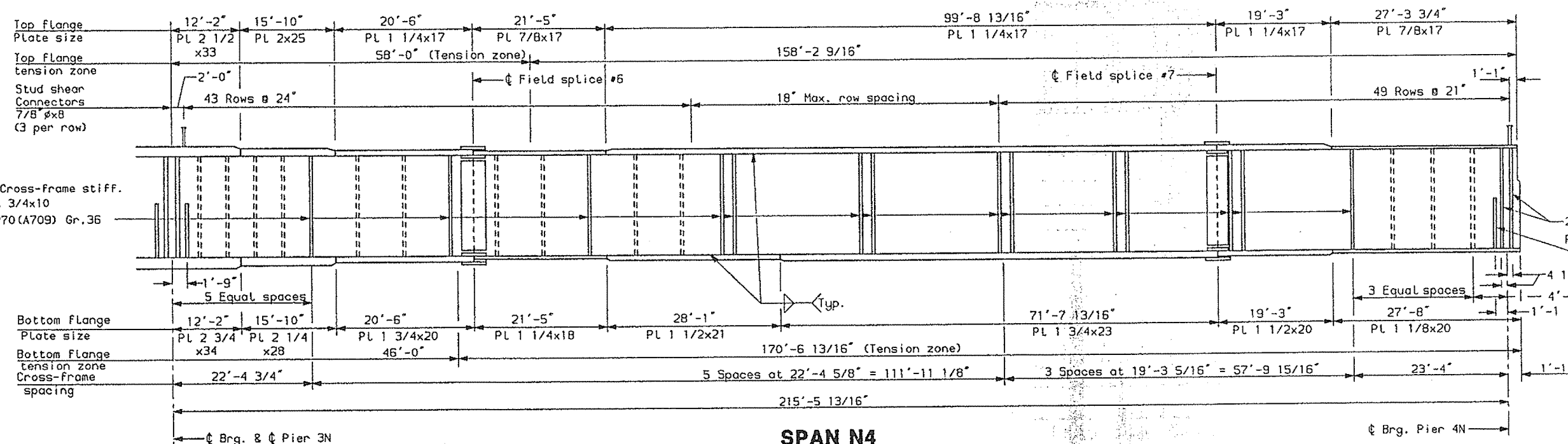
DESIGN-DETAILED
CHECKED
REVISION
FIELD CHANGES

PLANS

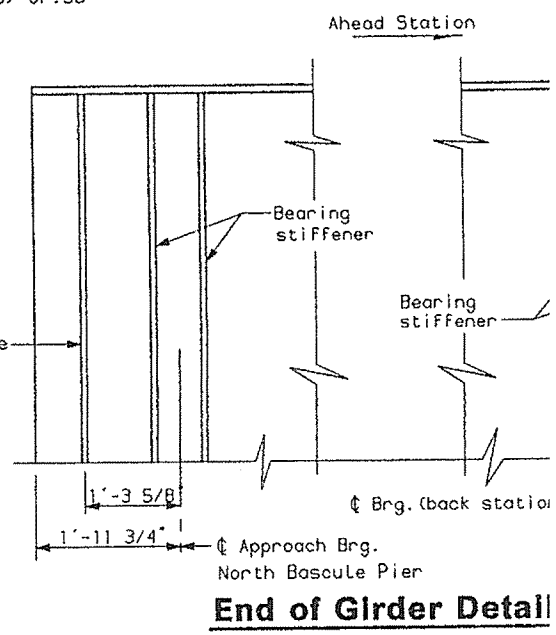
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SPAN N3



SPAN N4

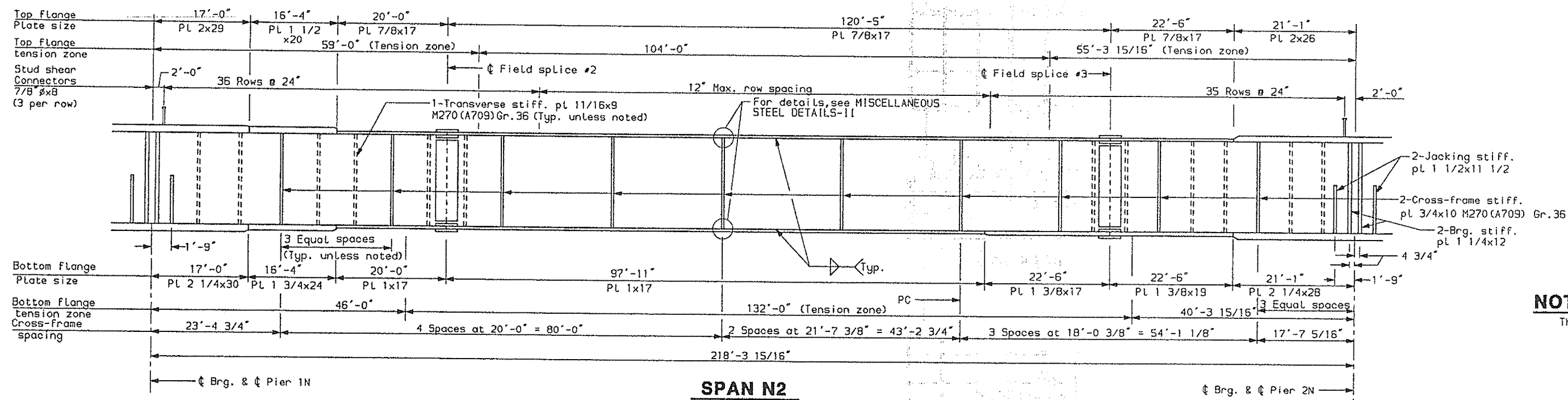
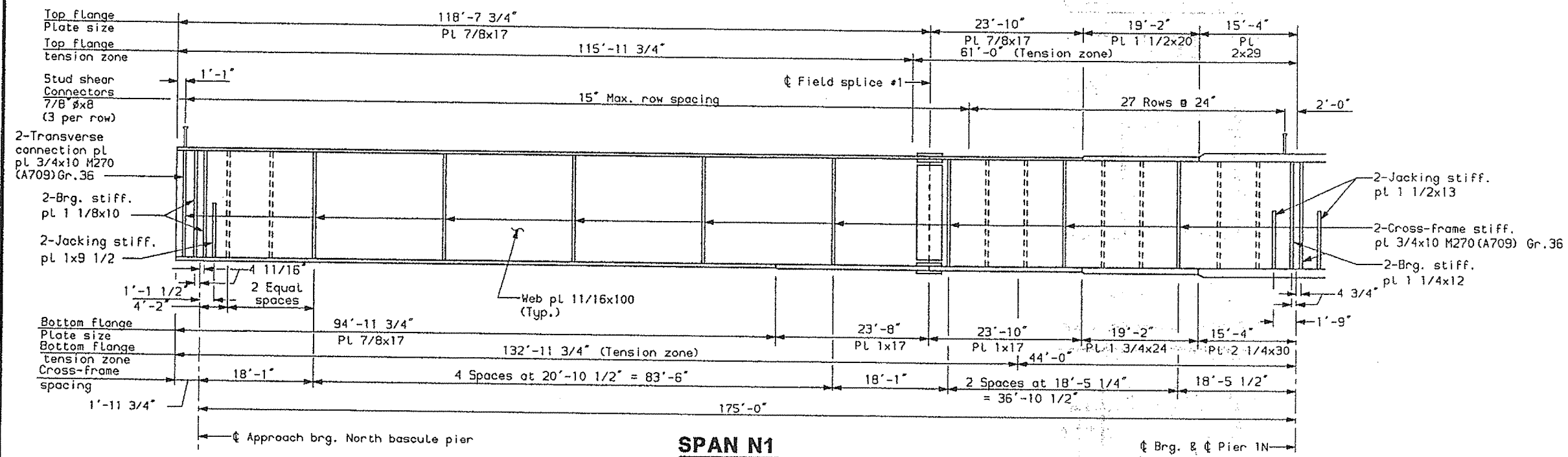


NOTES:
Threaded bar supports not shown

TABLE OF UNFACTORED REACTIONS (kips)				
	N. Bascule Pier	Pier 1N	Pier 2N	P
DL+SDL	225	855	783	
LL (Max.)	92	190	194	
LL (Min.)	-8	-13	-22	
Total (Max.)	317	1045	977	1
Total (Min.)	217	842	761	

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	6214	-16871	5170	-13696	4066	-20723	10842
SDL	2278	-6449	2135	-5750	1743	-7888	3956
LL+I (Positive)	5714	1233	5932	2173	6177	1278	7352
LL+I (Negative)	-1991	-9932	-2472	-10079	-2958	-11585	-1614
Total (Pos.LL+I)	14206	-22087	13237	-17273	11986	-27333	22150
Total (Neg.LL+I)	6501	-33252	4833	-29525	2841	-40196	13184

TABLE OF FACTORED MAXIMUM SHEARS (kips)								
	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	293	-566	542	-519	499	-579	650	-390
LL+I (Positive)	232	26	286	28	310	39	457	17
LL+I (Negative)	-17	-310	-24	-316	-26	-451	-41	-217
Total (Pos.LL+I)	525	-540	828	-491	809	-540	1107	-373
Total (Neg.LL+I)	276	-876	518	-835	473	-1030	609	-607



NOTES:

Threaded bar supports not shown

NORTH APPROACH

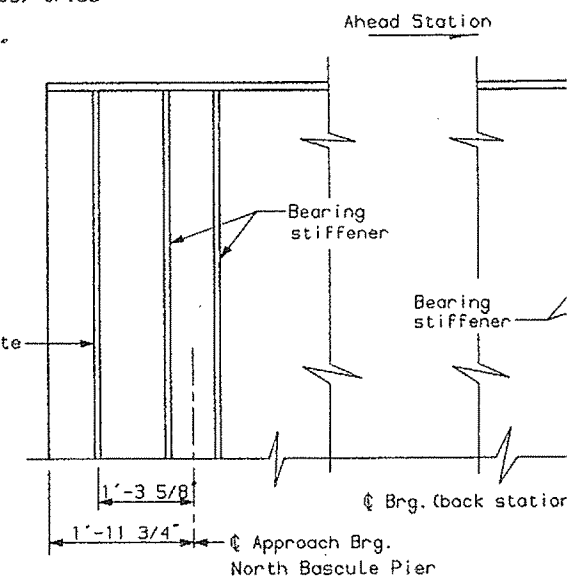
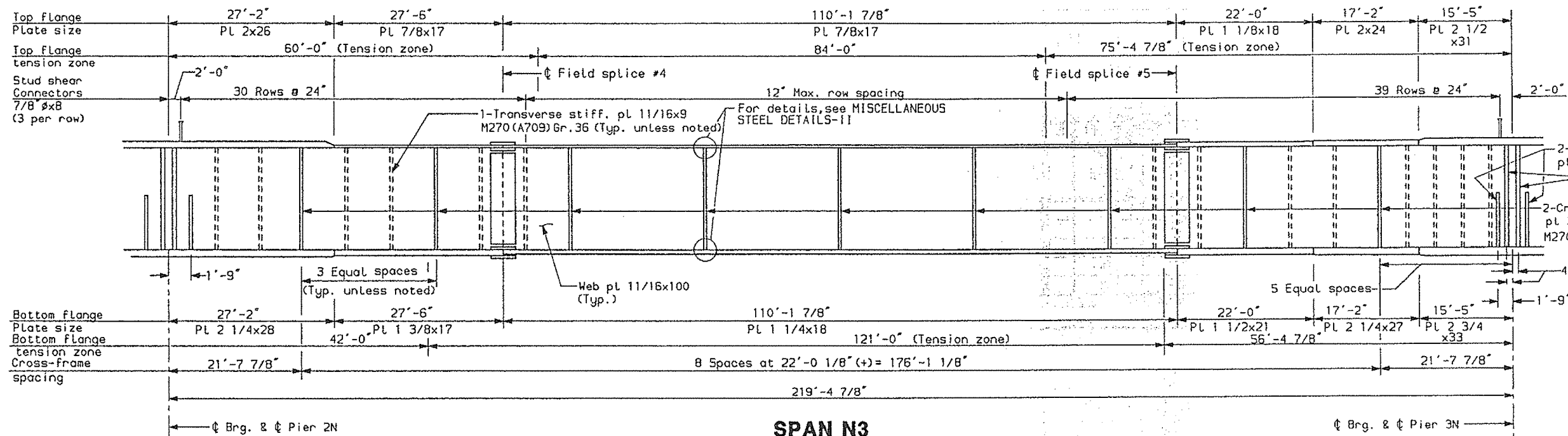
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTL

OVER FORE R

CUMBERLAND C

ELEVATION GI
SPANS N1-M



End of Girder Detail

NOTES:
Threaded bar supports not shown

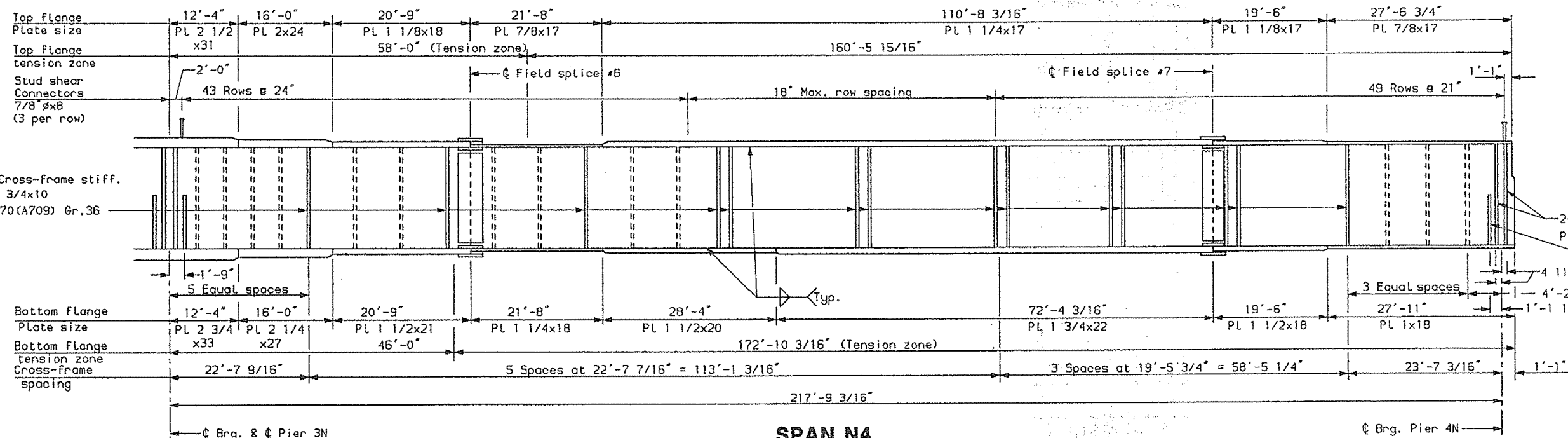


TABLE OF UNFACTORED REACTIONS (k)				
	N. Bascule Pier	Pier 1N	Pier 2N	Pier 3N
DL+SDL	186	735	693	8
LL (Max.)	89	187	195	2
LL (Min.)	-10	-11	-20	-
Total (Max.)	275	922	888	10
Total (Min.)	176	724	673	8

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	5394	-15937	5212	-13797	4039	-20827	10472
SDL	1886	-4970	1949	-4533	1535	-6236	3452
LL+I (Positive)	5282	1135	5558	1944	5665	1246	6790
LL+I (Negative)	-1894	-9330	-2253	-9570	-2613	-11178	-1452
Total (Pos.LL+I)	12562	-19772	12719	-16386	11240	-25817	20714
Total (Neg.LL+I)	5386	-30237	4908	-27900	2961	-38241	12472

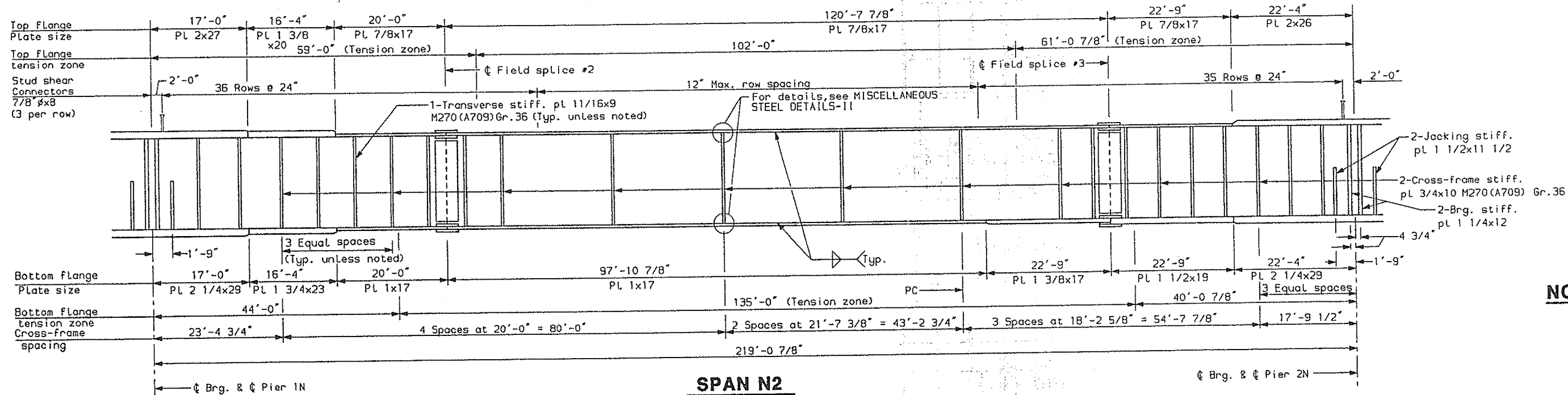
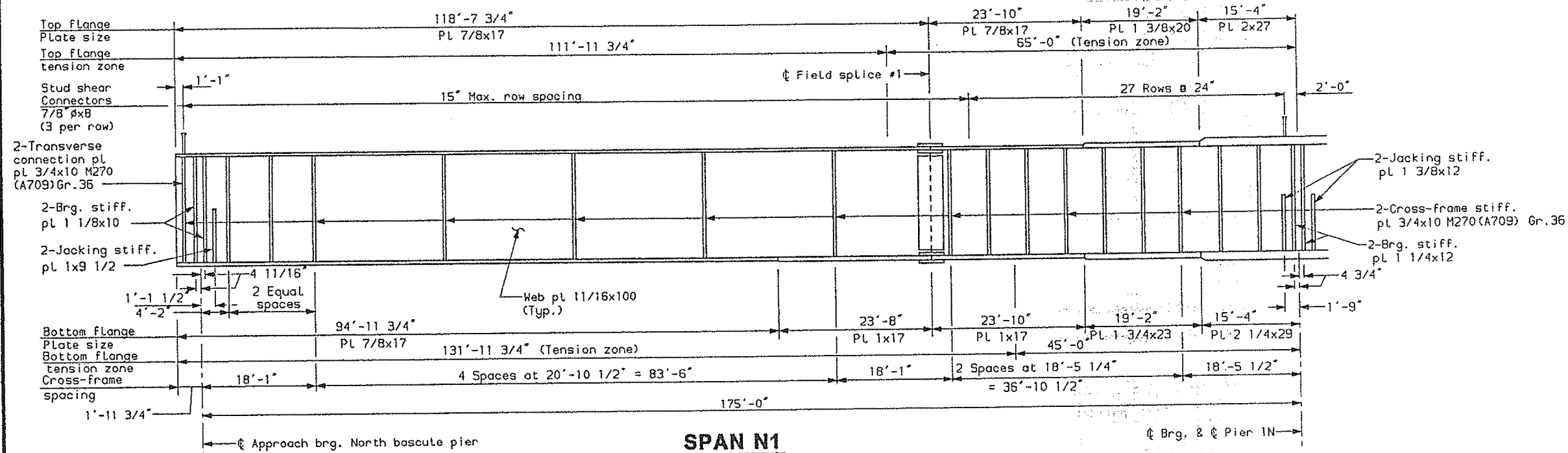
TABLE OF FACTORED MAXIMUM SHEARS (kips)								
	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	242	-476	476	-460	441	-524	586	-343
LL+I (Positive)	221	26	286	26	312	26	316	20
LL+I (Negative)	-24	-297	-24	-310	-26	-303	-28	-210
Total (Pos.LL+I)	463	-450	762	-434	753	-498	902	-323
Total (Neg.LL+I)	218	-773	452	-770	415	-827	558	-553

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
OVER FORE I
CUMBERLAND**

**ELEVATION G
SPANS N1-I**



NOTES:

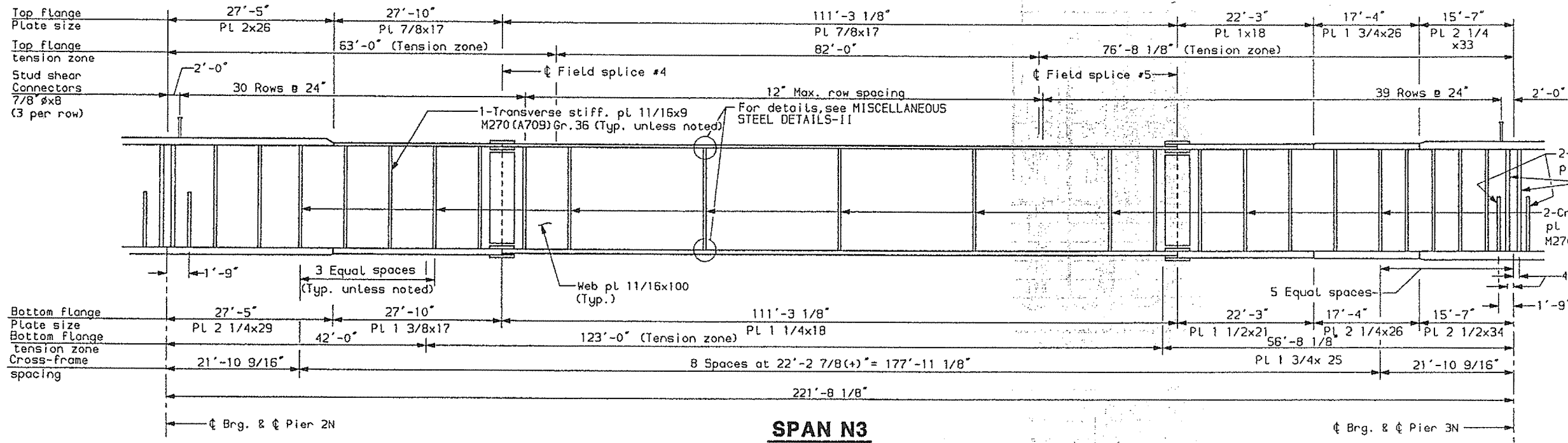
Threaded bar supports not s

NORTH APPROA

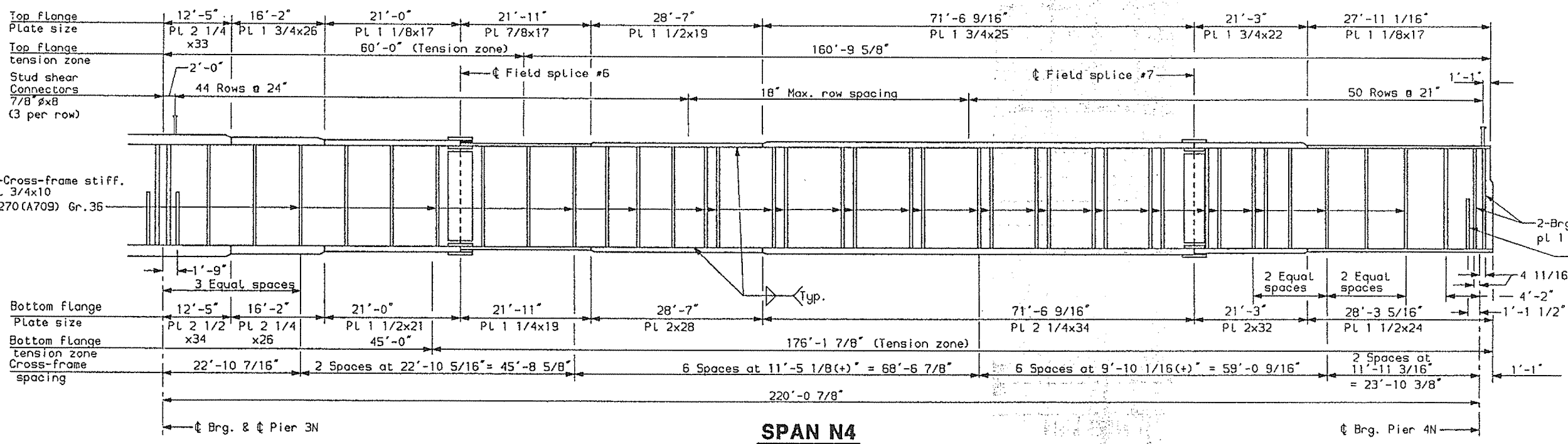
STATE OF MA
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. POR
OVER FORE
CUMBERLAND

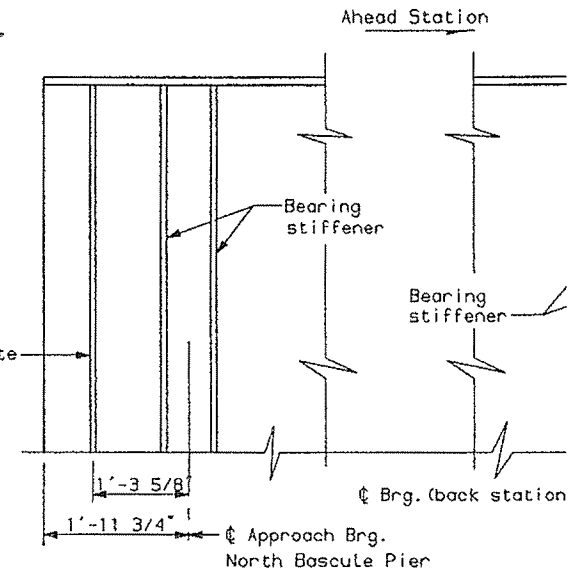
ELEVATION ()
SPANS N1



SPAN N3



SPAN N4



End of Girder Detail:

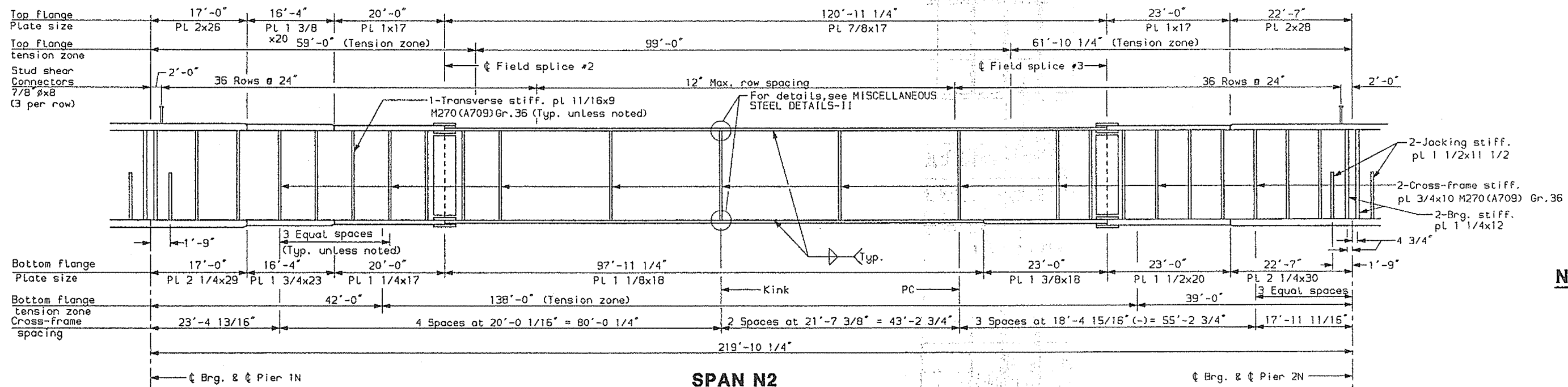
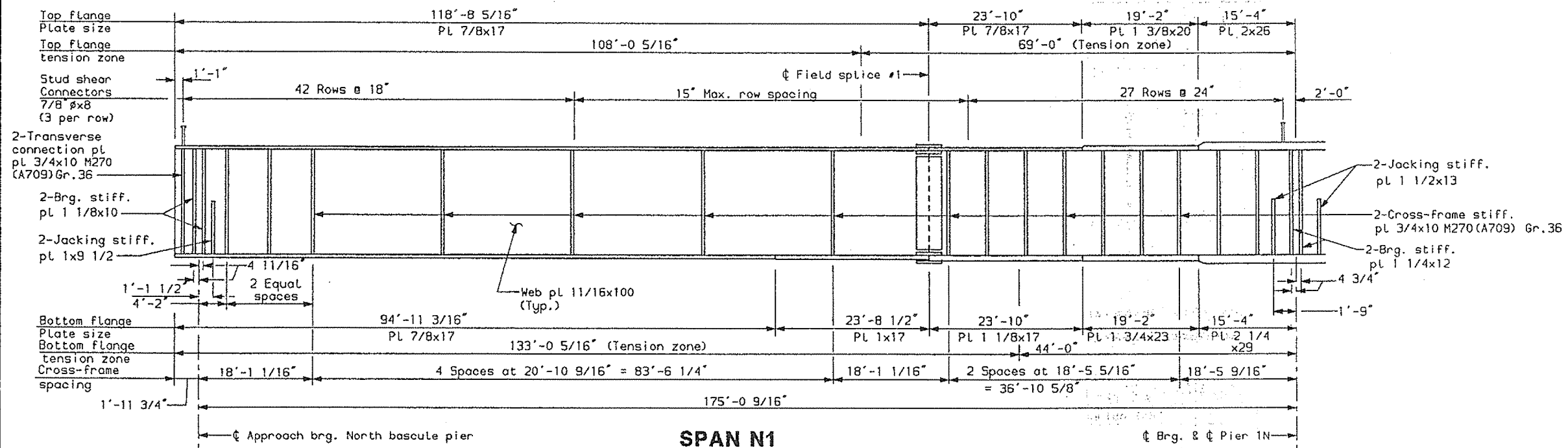
NOTES:
Threaded bar supports n

TABLE OF UNFACTORED REACTIONS (kips)				
	N. Bascule Pier	Pier 1N	Pier 2N	Pi 3
DL+SDL	162	668	665	80
LL (Max.)	80	195	213	2
LL (Min.)	-13	-16	-24	-
Total (Max.)	242	863	878	10
Total (Min.)	149	652	641	71

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	4898	-14704	5174	-13668	4021	-19843	12841
SDL	1647	-4241	1775	-4053	1404	-5344	3771
LL+I (Positive)	6021	1456	6435	2334	6292	1575	8398
LL+I (Negative)	-2490	-9971	-2854	-10736	-3012	-11856	-1783
Total (Pos.LL+I)	12566	-17489	13384	-15387	11717	-23412	25010
Total (Neg.LL+I)	4055	-28916	4095	-28457	2413	-36843	14829

TABLE OF FACTORED MAXIMUM SHEARS (kips)								
	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	211	-426	439	-442	421	-489	547	-420
LL+I (Positive)	199	26	284	28	321	28	334	39
LL+I (Negative)	-33	-301	-24	-329	-28	-314	-28	-295
Total (Pos.LL+I)	410	-400	723	-414	742	-461	881	-381
Total (Neg.LL+I)	178	-727	415	-771	393	-803	519	-715

NORTH APPROACH:
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND OVER FORD CUMBERLAND C
ELEVATION GIRDER SPANS N1-N



NOTES:
 Threaded bar supports not

NORTH APPROACH

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

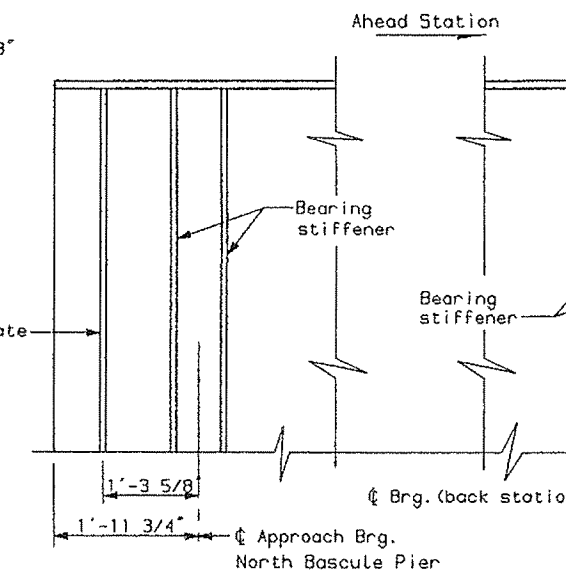
PORTLAND - S. PORT
OVER FORE F
CUMBERLAND C

ELEVATION G
SPANS N1-N

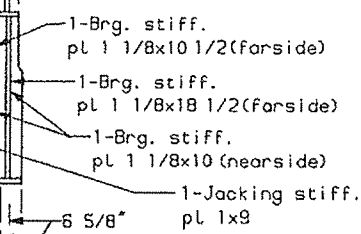
SHEET 34 OF 156 AUGUSTA,

DESIGN-DETAILED
 CHECKED
 REVISION
 FIELD CHANGES
 PLANS

11/14/88



End of Girder Detail

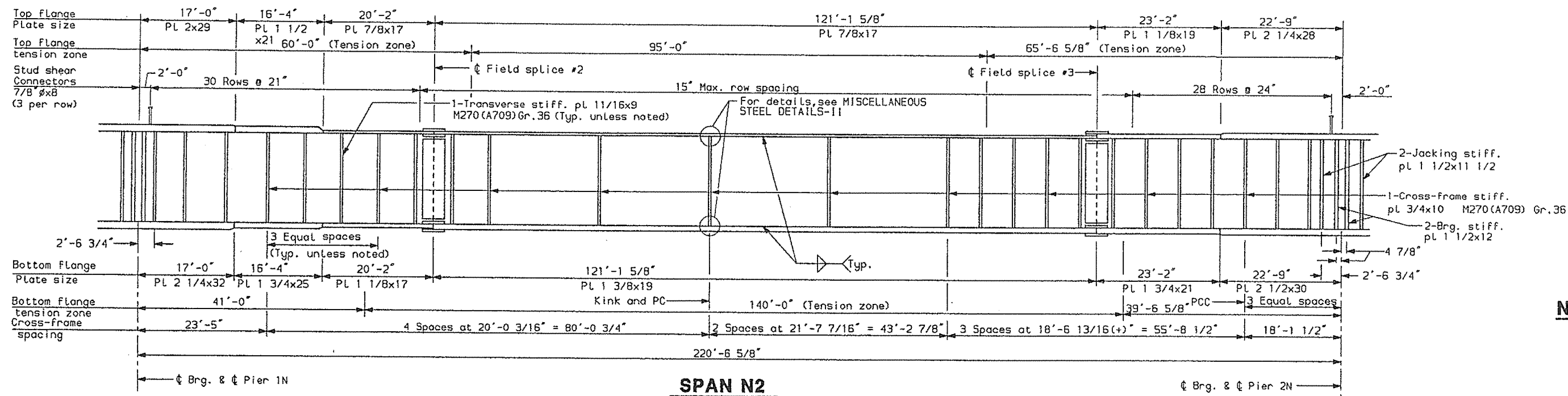
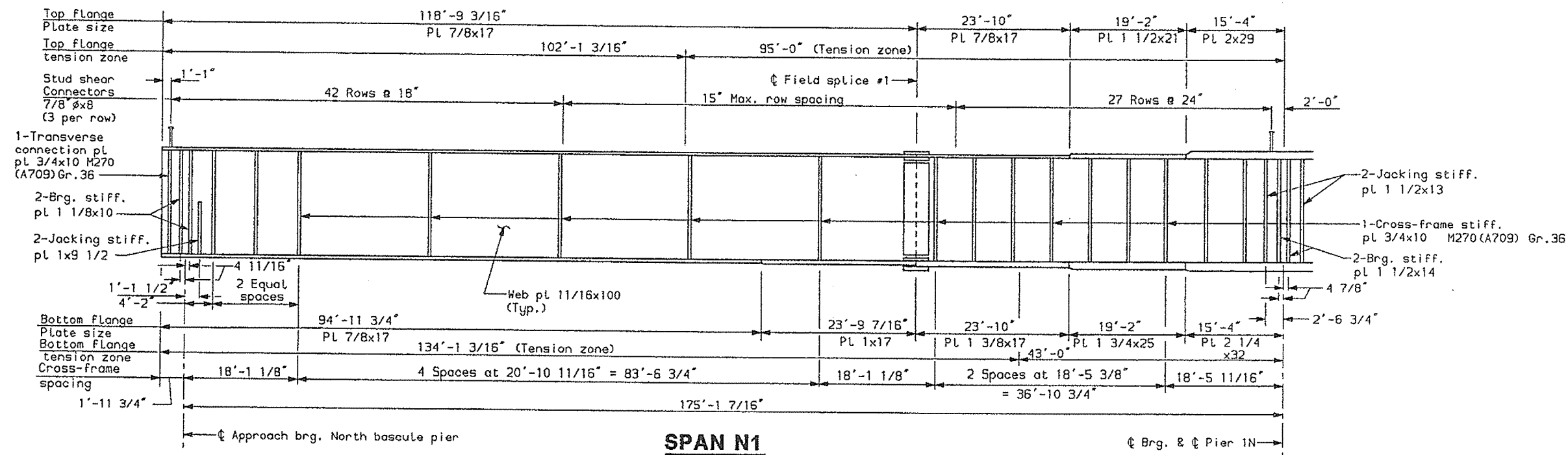


NOTES:
Threaded bar supports not

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	4557	-13901	5407	-13724	4092	-19323	11218
SDL	1560	-4016	1801	-4039	1396	-5152	2808
LL+I (Positive)	6634	1993	8047	2976	7447	2180	8129
LL+I (Negative)	-3185	-10859	-3863	-12211	-3720	-13050	-2256
Total (Pos.LL+I)	-12751	-15924	15255	-14784	12935	-22295	22155
Total (Neg.LL+I)	2932	-28776	3345	-29974	1768	-37525	11770

	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	192	-395	415	-430	413	-467	543	-208
LL+I (Positive)	191	28	301	30	342	28	345	152
LL+I (Negative)	-35	-312	-26	-349	-30	-327	-30	-169
Total (Pos.LL+I)	383	-367	716	-400	755	-439	888	-56
Total (Neg.LL+I)	157	-707	389	-779	383	-794	513	-377

NORTH APPROACH
STATE OF MA
DEPARTMENT OF TRANS
PORTLAND - S. PORT
OVER FORE I
CUMBERLAND C
ELEVATION G
SPANS N1-I
SHEET 25 OF 155 AUGUSTA



NOTES:

Threaded bar supports no

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

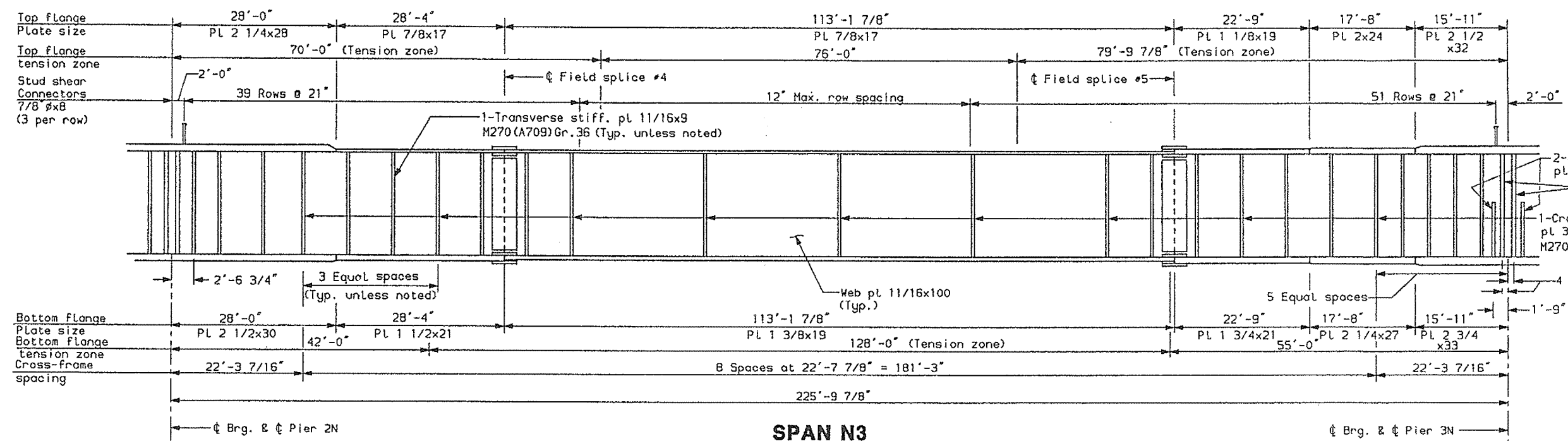
PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND CREEK

ELEVATION GIBSON
SPANS N1-N2

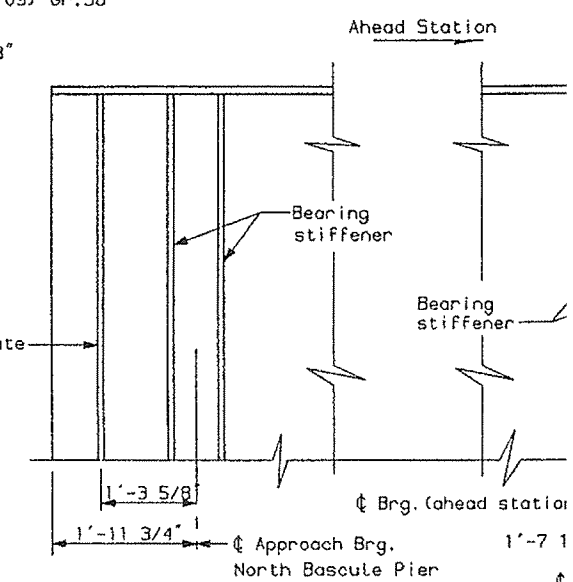
SHEET 37 OF 156 AUGUSTA, ME

DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES
6-94	6-94		
PDB	PDB		
EL	EL		
PLANS			

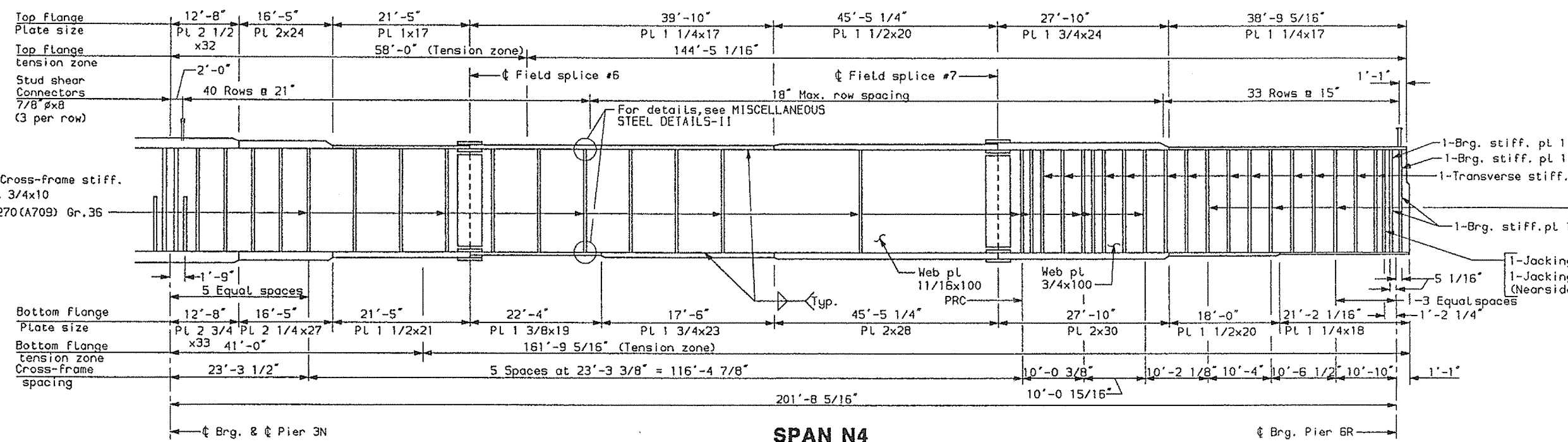
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SPAN N3



End of Girder Detail



SPAN N4

TABLE OF UNFACTORED REACTIONS (k)				
	N. Bascule Pier	Pier 1N	Pier 2N	Pier 3N
DL+SDL	158	670	651	651
LL (Max.)	82	212	212	212
LL (Min.)	-22	-38	-38	-38
Total (Max.)	240	882	863	863
Total (Min.)	136	632	613	613

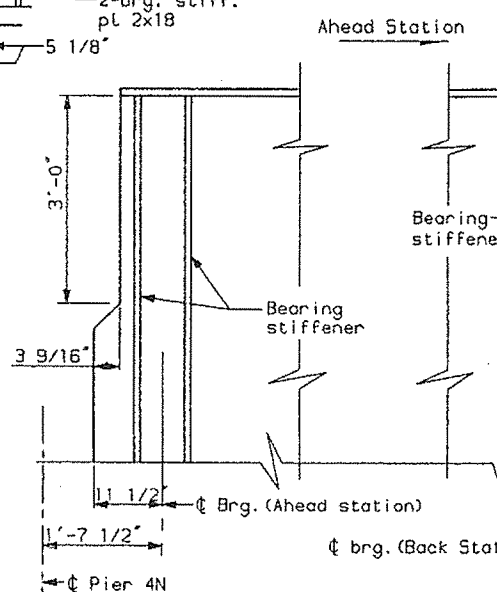
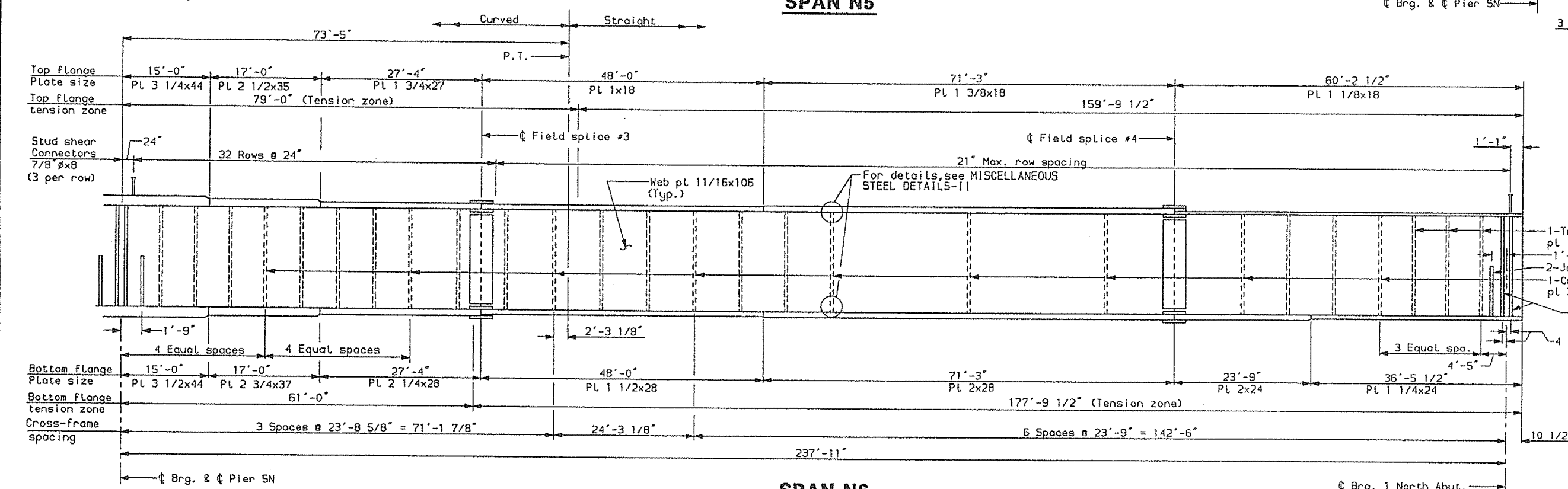
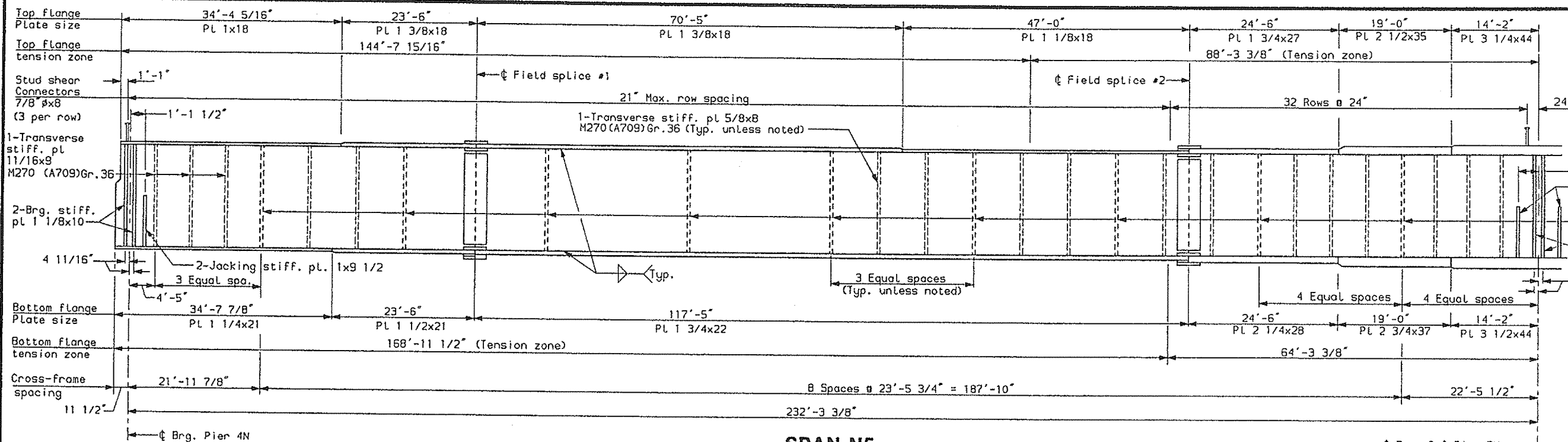
TABLE OF FACTORED MAXIMUM MOMENTS (Ft.-kips)							
	Span N1 Positive Moment	Pier 1N Negative Moment	Span N2 Positive Moment	Pier 2N Negative Moment	Span N3 Positive Moment	Pier 3N Negative Moment	Span N4 Positive Moment
DL	4216	-13829	5547	-13950	4255	-18730	11253
SDL	1552	-4827	1915	-4917	1528	-6221	3520
LL+I (Positive)	7328	2960	9499	3822	8751	3395	10979
LL+I (Negative)	-4219	-12682	-4996	-14094	-4719	-14551	-3712
Total (Pos. LL+I)	13096	-15696	17061	-15045	14534	-21556	25752
Total (Neg. LL+I)	1549	-31338	2566	-32961	1064	-39502	11061

TABLE OF FACTORED MAXIMUM SHEARS (kips)								
	Span N1 Left	Span N1 Right	Span N2 Left	Span N2 Right	Span N3 Left	Span N3 Right	Span N4 Left	Span N4 Right
DL+SDL	205	-417	452	-430	416	-455	532	-373
LL+I (Positive)	206	28	329	30	327	89	1044	117
LL+I (Negative)	-52	-327	-28	-342	-28	-1003	-93	-414
Total (Pos. LL+I)	411	-389	781	-400	743	-366	1576	-256
Total (Neg. LL+I)	153	-744	424	-772	388	-1458	439	-787

NOTES:

- Threaded bar supports not shown.
- Bearing stiffeners shall be parallel to the CL of bearing.
- Top and bottom girder flanges at Pier 6R shall be cut parallel to the CL of bearing.

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT CUMBERLAND
ELEVATION G SPANS N1-I
SHEET 38 OF 156 AUGUSTA,



NOTES:
Utility supports not shown

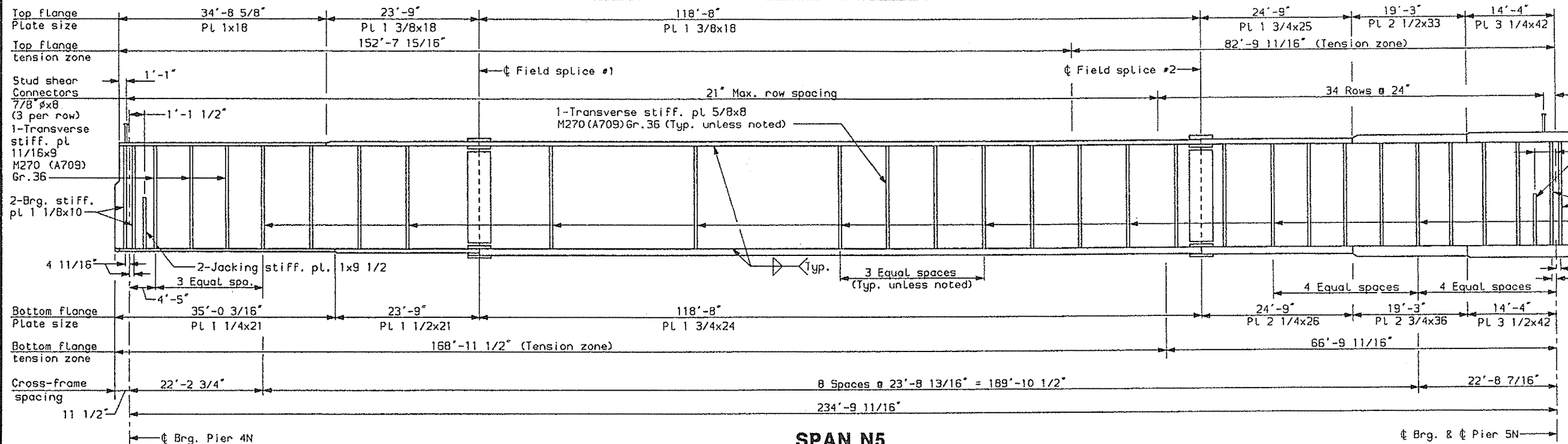
TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)			
	Span N5 Positive Moment	Pier 5N Negative Moment	Span N6 Positive Moment
DL	9576	-37101	13036
SDL	3890	-13173	5006
LL+I (Positive)	10823	3220	12153
LL+I (Negative)	-5698	-19019	-5408
Total (Pos.LL+I)	24289	-47054	30195
Total (Neg.LL+I)	7768	-69293	12634

TABLE OF FACTORED MAXIMUM SHEARS (kips)				
	Span N5 Left	Span N5 Right	Span N6 Left	Span N6 Right
DL+SDL	337	-788	822	-411
LL+I (Positive)	210	28	314	69
LL+I (Negative)	-76	-314	-28	-230
Total (Pos.LL+I)	547	-760	1136	-342
Total (Neg.LL+I)	261	-1102	794	-641

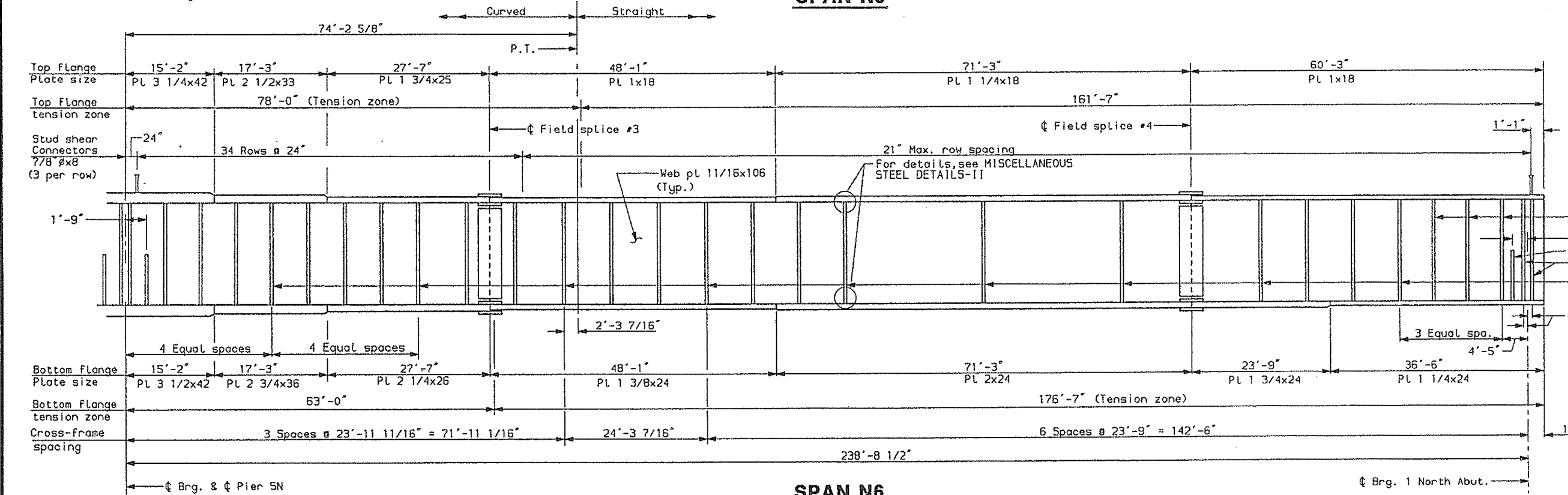
TABLE OF UNFACTORED REACTIONS (kips)			
	Pier 4N	Pier 5N	North Abutment
DL+SDL	259	1248	316
LL	86	227	94
(Max.)	86	227	94
(Min.)	-31	-43	-29
Total (Max.)	345	1476	410
Total (Min.)	228	1206	287

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT OVER FORE I CUMBERLAND
ELEVATION G SPANS N5
SHEET 39 OF 156 AUGUSTA,

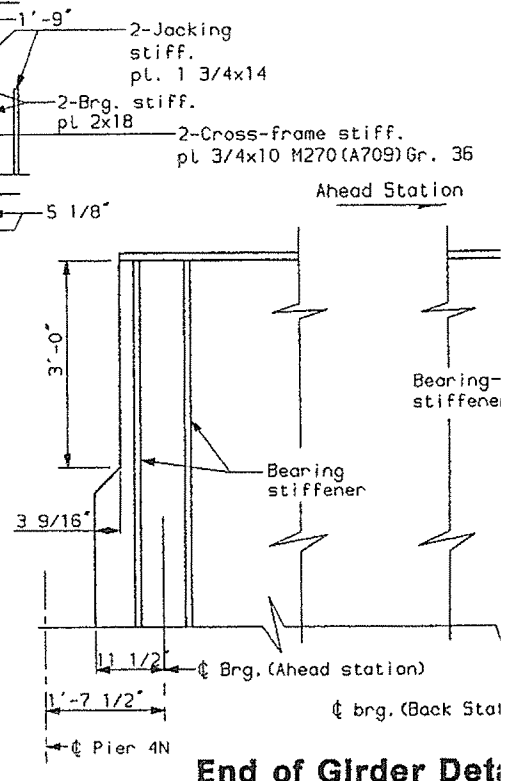
DATE: 8-94
BY: ELS
DESIGN-DETAILED: DMP
CHECKED: PDB
REVISION: FIELD CHANGES
PLANS



SPAN N5



SPAN N6



NOTES:
Utility and threaded bar supply

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)			
	Span N5 Positive Moment	Pier 5N Negative Moment	Span N6 Positive Moment
DL	10282	-35959	12531
SDL	3912	-11736	4555
LL+I (Positive)	9089	360	9854
LL+I (Negative)	-3057	-16822	-2836
Total (Pos.LL+I)	23283	-47335	26940
Total (Neg.LL+I)	11137	-64517	14250

TABLE OF FACTORED MAXIMUM SHEARS (kips)				
	Span N5 Left	Span N5 Right	Span N6 Left	Span N6 Right
DL+SDL	345	-705	720	-382
LL+I (Positive)	247	28	327	26
LL+I (Negative)	-28	-334	-28	-256
Total (Pos.LL+I)	592	-677	1047	-356
Total (Neg.LL+I)	317	-1039	692	-638

TABLE OF UNFACTORED REACTIONS (kips)			
	Pier 4N	Pier 5N	North Abutment
DL+SDL	265	1101	294
LL (Max.)	101	233	104
LL (Min.)	-12	-5	-12
Total (Max.)	366	1334	398
Total (Min.)	253	1096	282

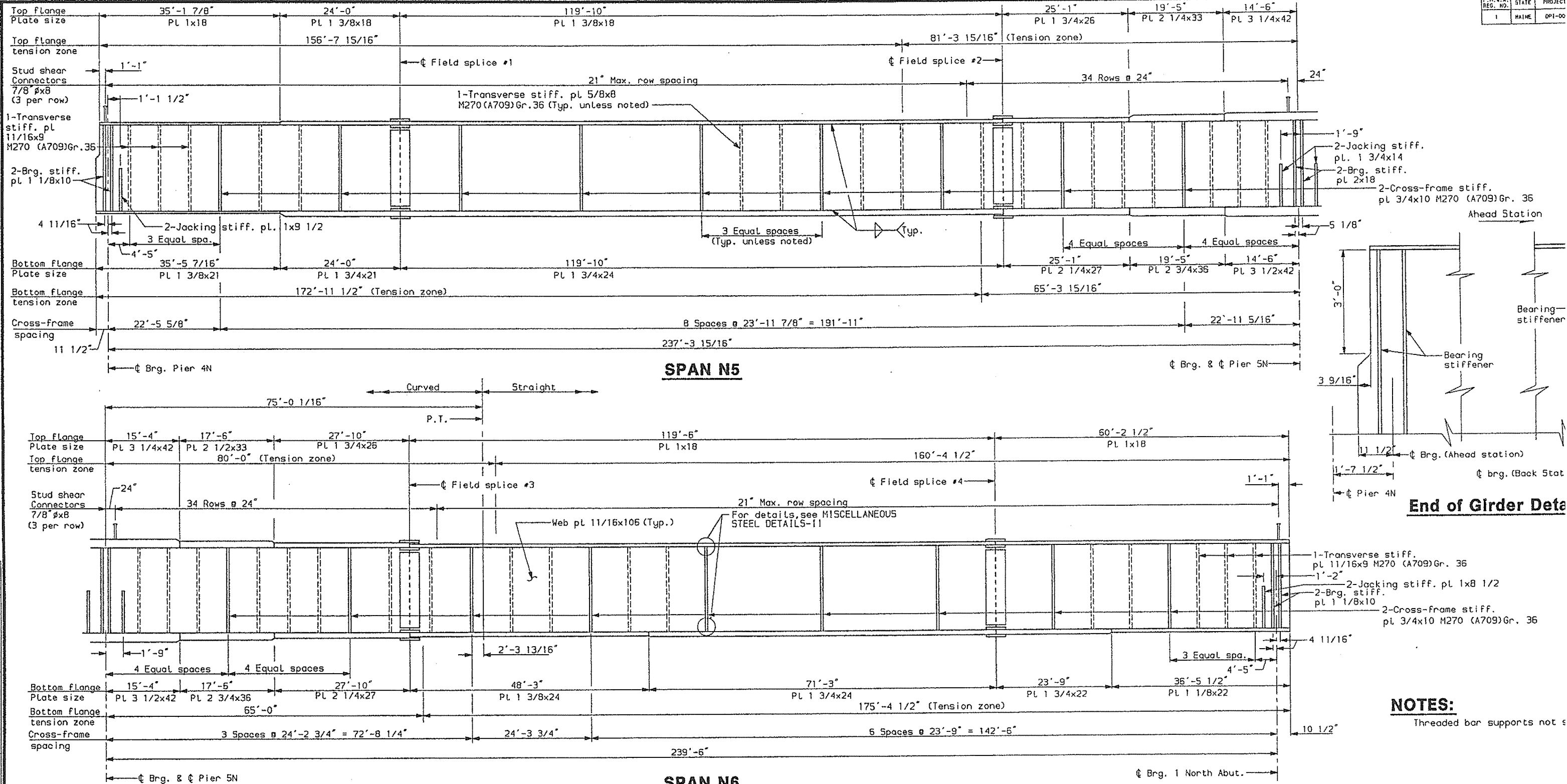


TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)

	Span N5 Positive Moment	Pier 5N Negative Moment	Span N6 Positive Moment
DL	11239	-36494	11341
SDL	4042	-12288	4272
LL+I (Positive)	8645	0	8940
LL+I (Negative)	-2455	-16374	-2505
Total (Pos.LL+I)	23926	-48782	24553
Total (Neg.LL+I)	12826	-65156	13108

TABLE OF FACTORED MAXIMUM SHEARS (kips)

	Span N5 Left	Span N5 Right	Span N6 Left	Span N6 Right
DL+SDL	371	-736	748	-372
LL+I (Positive)	241	28	314	24
LL+I (Negative)	-24	-329	-28	-241
Total (Pos.LL+I)	612	-708	1062	-348
Total (Neg.LL+I)	347	-1065	720	-613

TABLE OF UNFACTORED REACTIONS (kips)

	Pier 4N	Pier 5N	North Abutment
DL+SDL	285	1145	286
LL (Max.)	98	228	98
LL (Min.)	-10	0	-10
Total (Max.)	383	1373	384
Total (Min.)	275	1145	276

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRAN

PORTLAND - S. PORT
OVER FORD
CUMBERLAND

ELEVATION G
SPANS N

SHEET 41 OF 156 AUGUSTA,

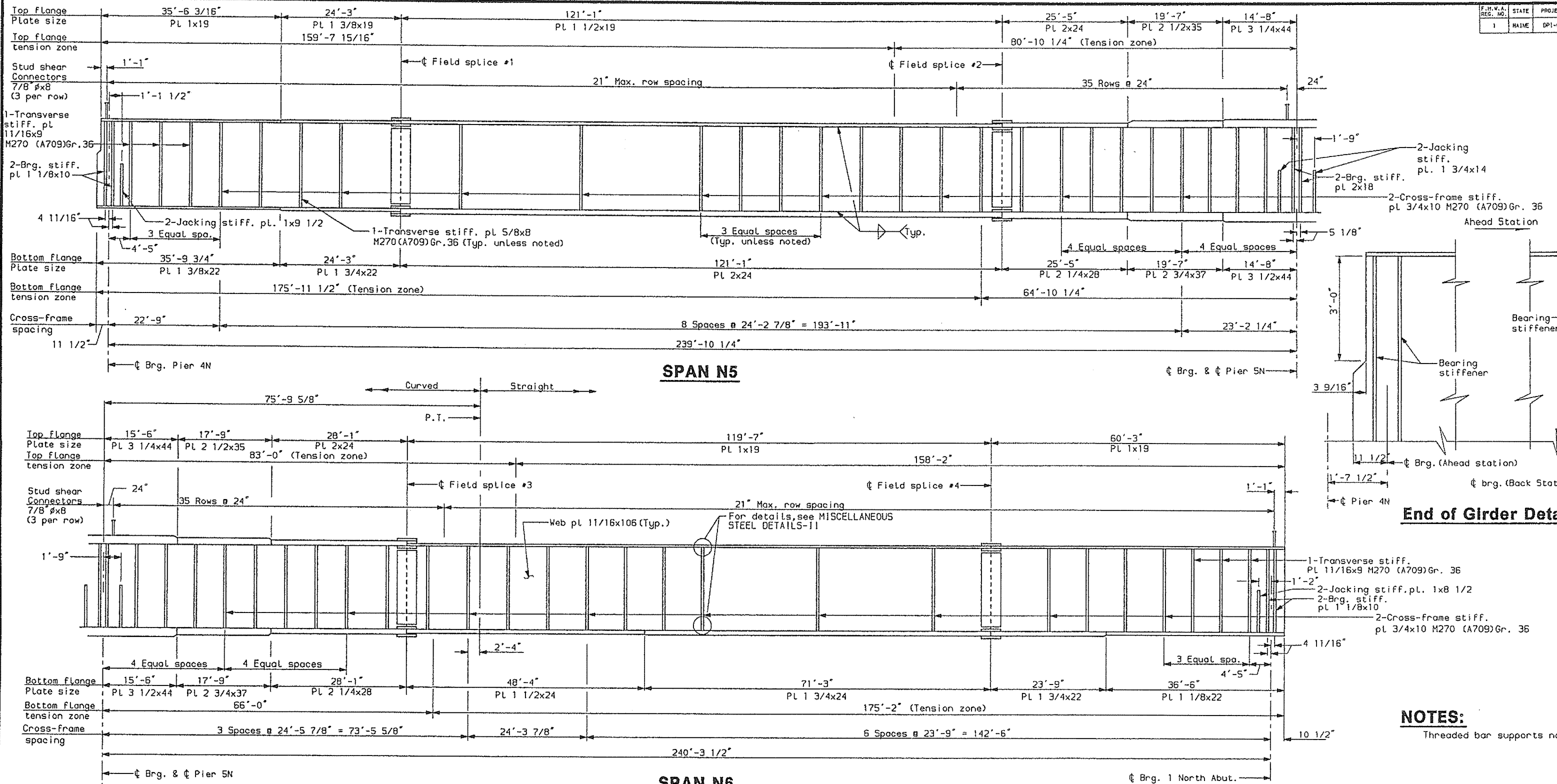


TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)

	Span N5 Positive Moment	Pier 5N Negative Moment	Span N6 Positive Moment
DL	12055	-37863	11275
SDL	4468	-13425	4343
LL+I (Positive)	9622	0	9702
LL+I (Negative)	-2843	-17929	-3072
Total (Pos.LL+I)	26145	-51288	25320
Total (Neg.LL+I)	13680	-69217	12546

TABLE OF FACTORED MAXIMUM SHEARS (kips)

	Span N5 Left	Span N5 Right	Span N6 Left	Span N6 Right
DL+SDL	397	-787	780	-382
LL+I (Positive)	247	30	334	28
LL+I (Negative)	-26	-353	-28	-249
Total (Pos.LL+I)	644	-757	1114	-354
Total (Neg.LL+I)	371	-1140	752	-631

TABLE OF UNFACTORED REACTIONS (kips)

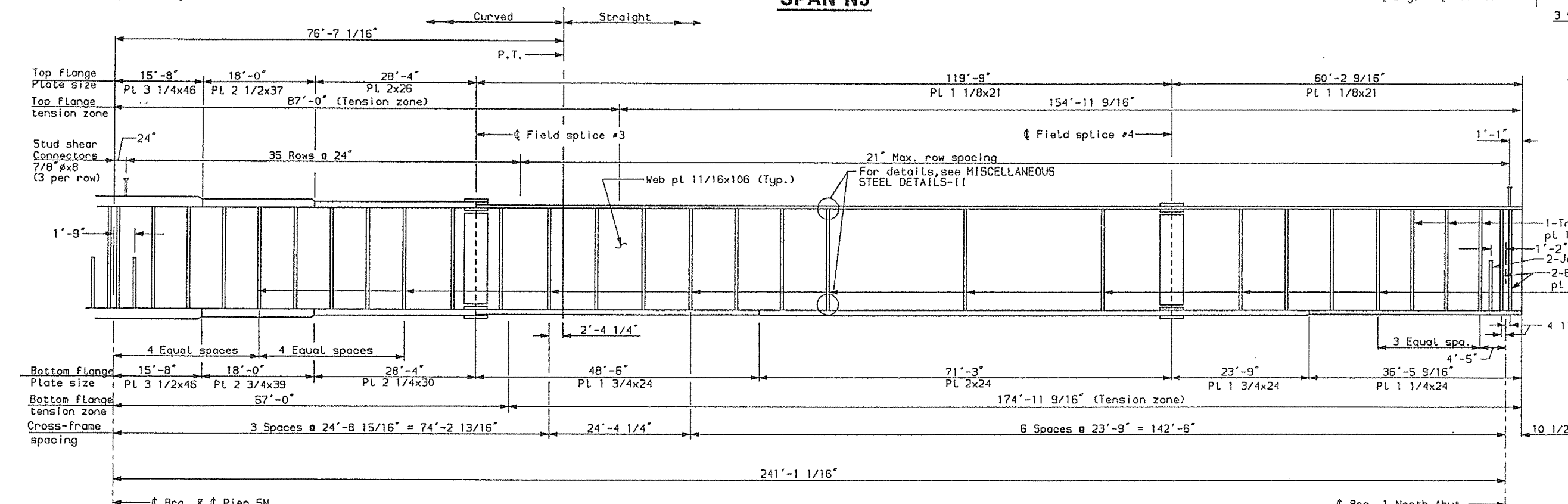
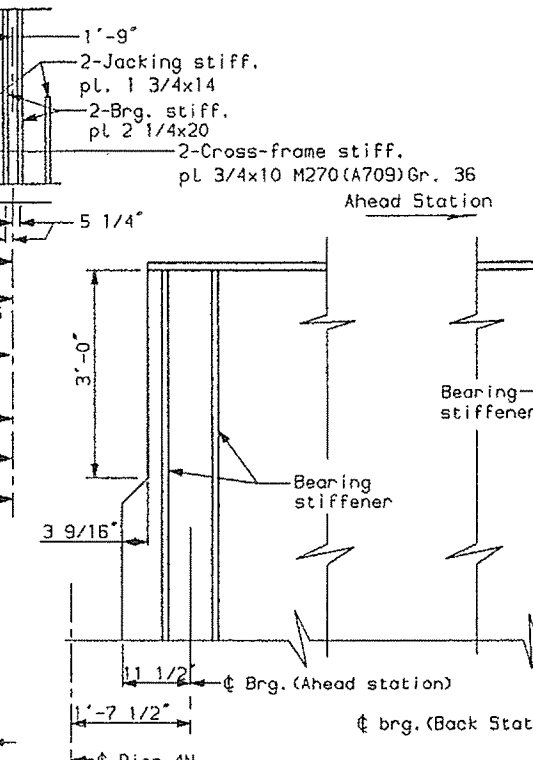
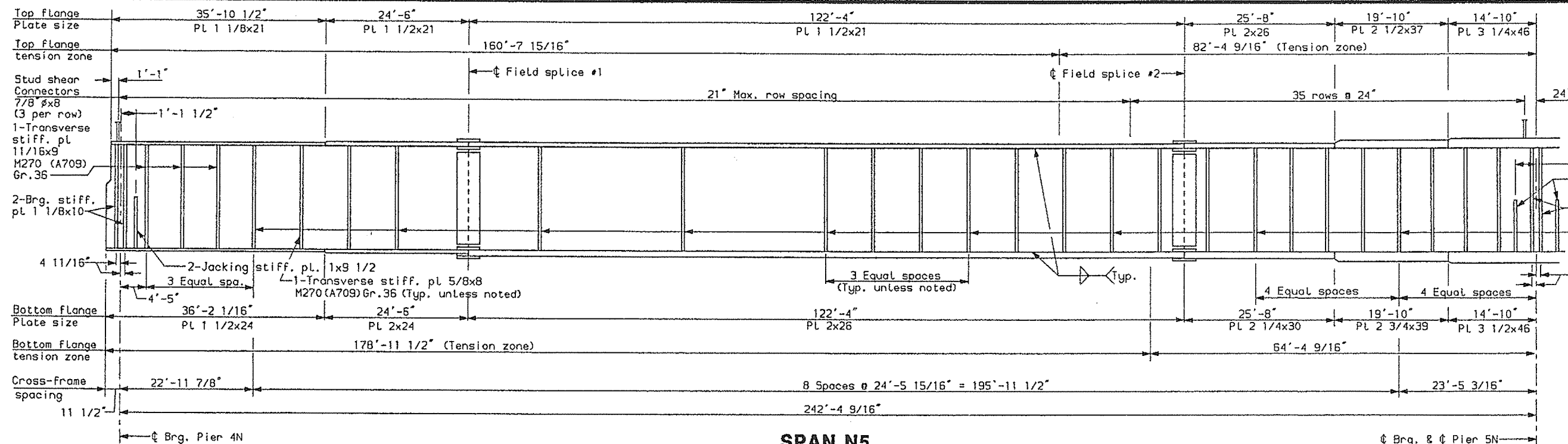
	Pier 4N	Pier 5N	North Abutment
DL+SDL	305	1210	294
LL (Max.)	101	245	102
LL (Min.)	-11	0	-12
Total (Max.)	406	1455	396
Total (Min.)	294	1210	282

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANS

**PORTLAND - S. PORT
OVER FORE I
CUMBERLAND I**

**ELEVATION G
SPANS N5**



NOTES:
Threaded bar supports no

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)

	Span N5 Positive Moment	Pier 5N Negative Moment	Span N6 Positive Moment
DL	12776	-37943	11424
SDL	4845	-12344	4356
LL+I (Positive)	12159	41	11633
LL+I (Negative)	-3781	-20438	-3920
Total (Pos.LL+I)	29780	-50246	27413
Total (Neg.LL+I)	13840	-70725	11860

TABLE OF FACTORED MAXIMUM SHEARS (kips)

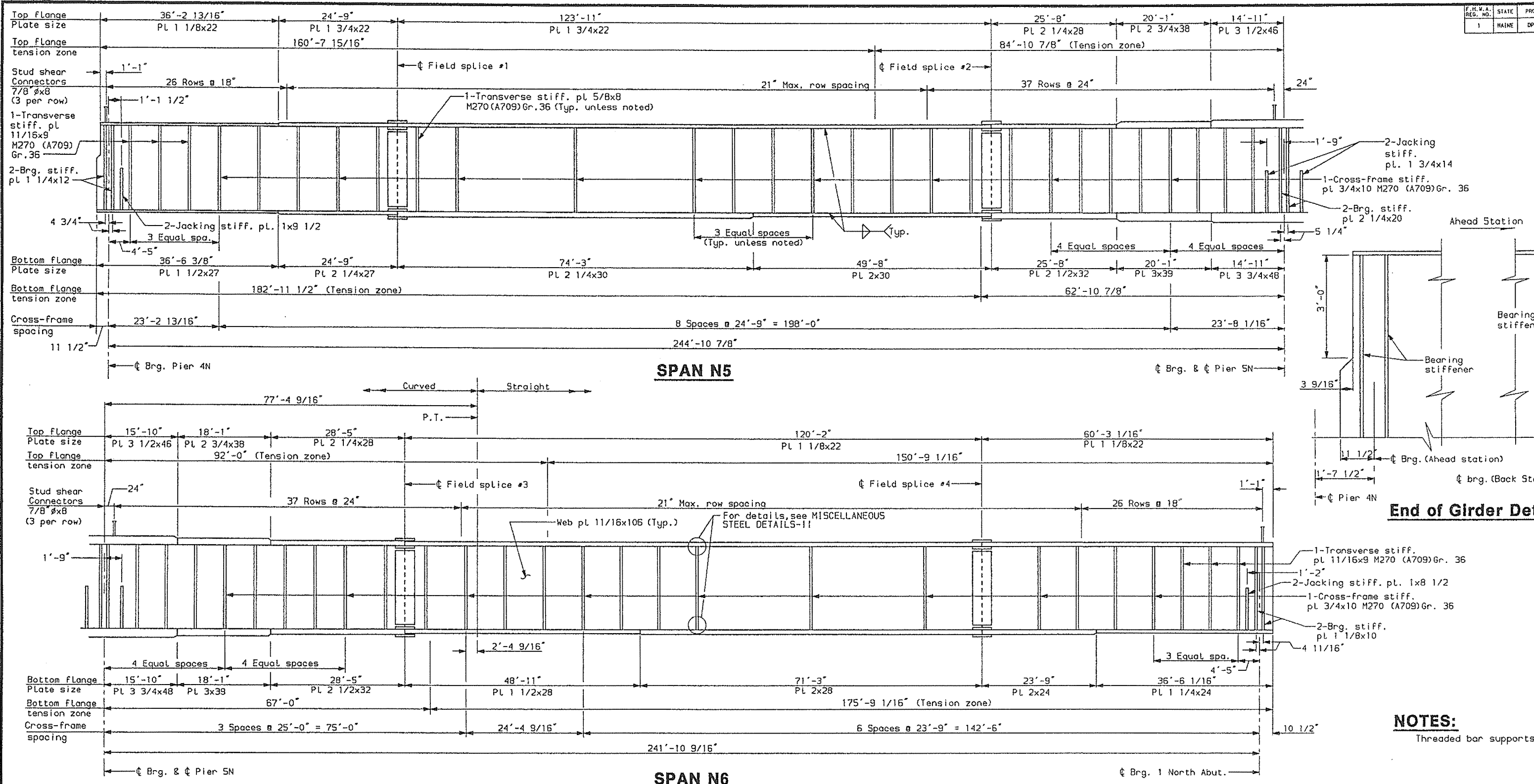
	Span N5 Left	Span N5 Right	Span N6 Left	Span N6 Right
DL+SDL	387	-748	731	-360
LL+I (Positive)	277	33	360	37
LL+I (Negative)	-37	-379	-30	-271
Total (Pos.LL+I)	664	-715	1091	-323
Total (Neg.LL+I)	350	-1127	701	-631

TABLE OF UNFACTORED REACTIONS (kips)

	Pier 4N	Pier 5N	North Abutment
DL+SDL	298	1142	277
LL (Max.)	113	263	111
LL (Min.)	-15	-1	-15
Total (Max.)	411	1405	388
Total (Min.)	283	1141	262

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT
OVER FORE RIVER
CUMBERLAND

ELEVATION G
SPANS N5



DESIGN	BY	DATE
DESIGN-DETAILED	ELS	6-94
CHECKED	DMP	6-94
REVISION	PDB	
FIELD CHANGES		

PR

PLANS

08

	Span N5 Positive Moment	Pier N5 Negative Moment	Span N6 Positive Moment
DL	14399	-38683	11727
SDL	5829	-14330	4744
LL+I (Positive)	16114	1736	14601
LL+I (Negative)	-5599	-24869	-5705
Total (Pos.LL+I)	36342	-51277	31072
Total (Neg.LL+I)	14629	-77882	10766

	Span N5 Left	Span N5 Right	Span N6 Left	Span N6 Right
DL+SDL	446	-722	696	-387
LL+I (Positive)	336	37	381	67
LL+I (Negative)	-65	-414	-33	-316
Total (Pos.LL+I)	782	-685	1077	-320
Total (Neg.LL+I)	381	-1136	663	-703

	Pier 4N	Pier 5N	North Abutment
DL+SDL	343	1091	298
LL (Max.)	137	282	129
LL (Min.)	-28	-24	-28
Total (Max.)	480	1373	427
Total (Min.)	315	1067	270

NORTH APPROACH

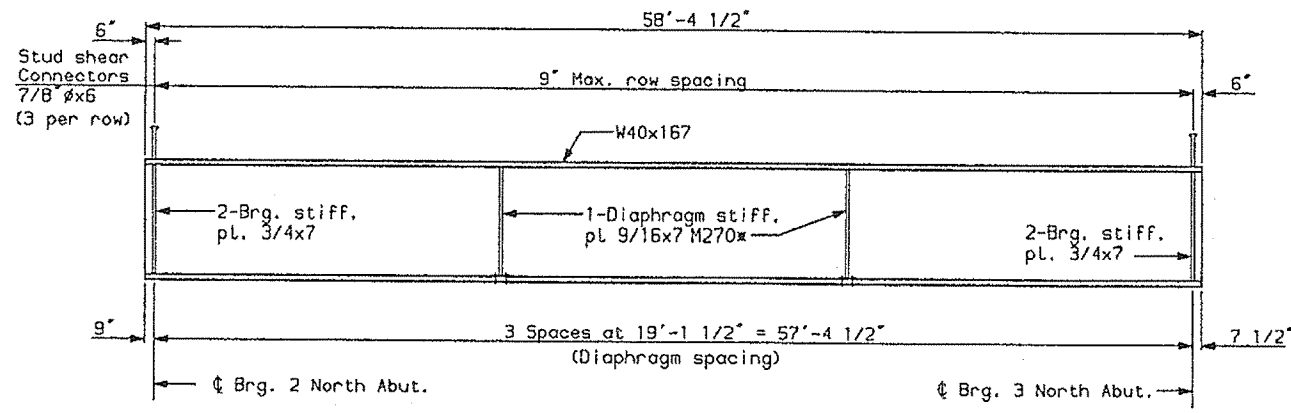
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORE CUMBERLAND**

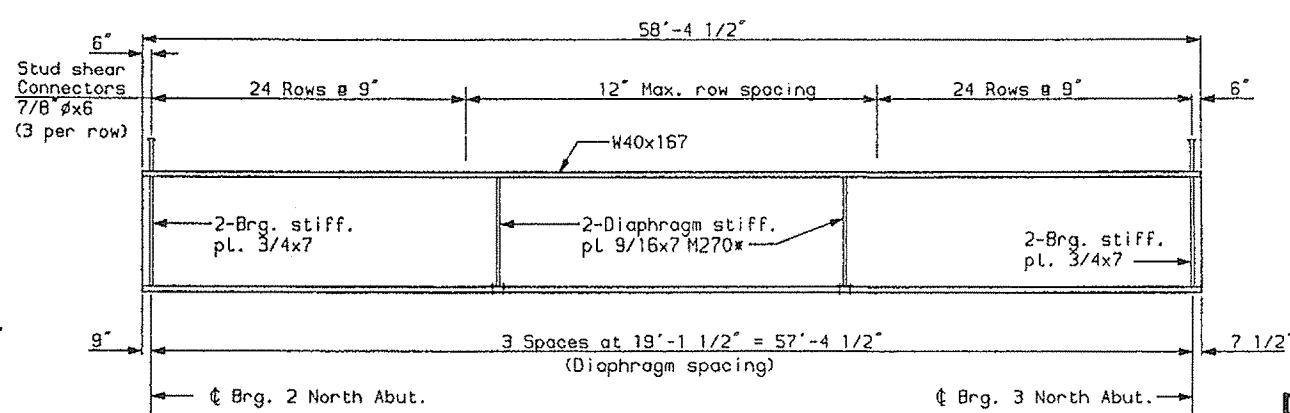
**ELEVATION G
SPANS N**

SHEET 44 OF 156 AUGUSTA, ME

n5n6.sas

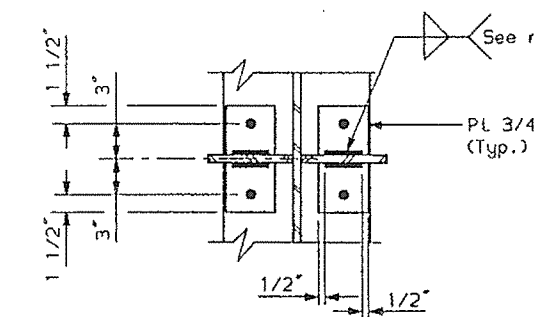


GIRDER 5

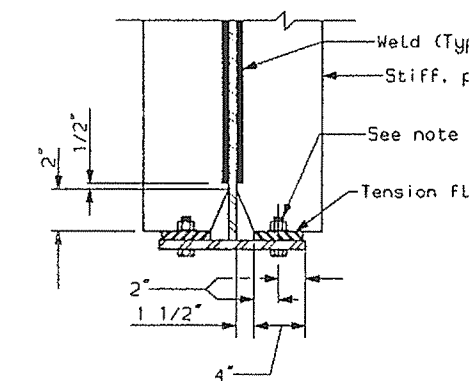


GIRDERS 2, 3, & 4

DIAPHRAGM STIFFENER DETAIL
(Typ. top flange)



PLAN OF STIFF. DETAIL
(Typ. bottom flange)



DIAPHRAGM STIFFENER DET.
(Typ. bottom flange)

NOTES:

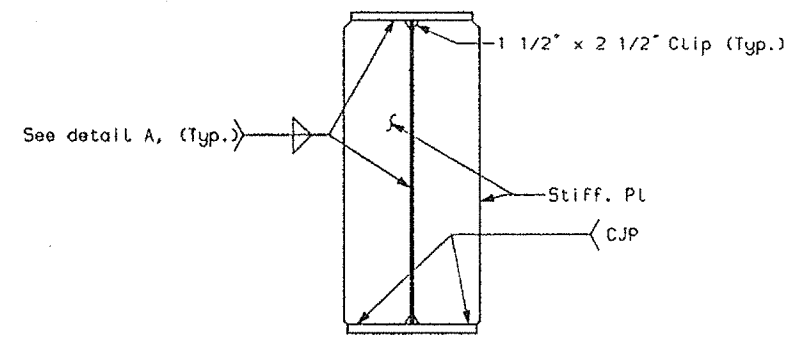
- *AASHTO M270 (ASTM A709), Gr. 35.
- 1. All fillet welds which connect stiffener to either a flange or web plate, shall be and stopped approximately 1/2" from the stiffener plate.
- 2. Bolt tension-flange connection plate to welding stiffener or diaphragm connecti.

NORTH APPROA

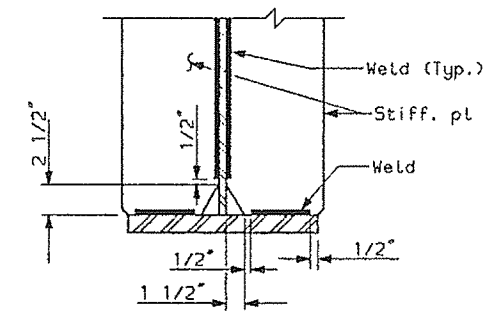
STATE OF MA
DEPARTMENT OF TRAN

PORTLAND - S. POR
OVER FORE
CUMBERLAND

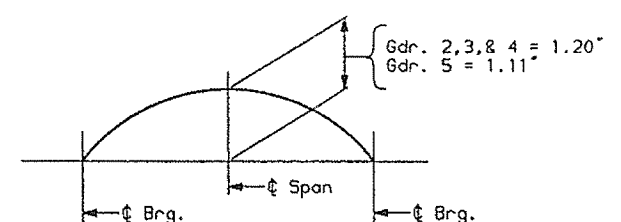
ELEVATION GIR
SPAN I



BEARING STIFFENER DETAIL
(Interior girder shown, Exterior girder similar)

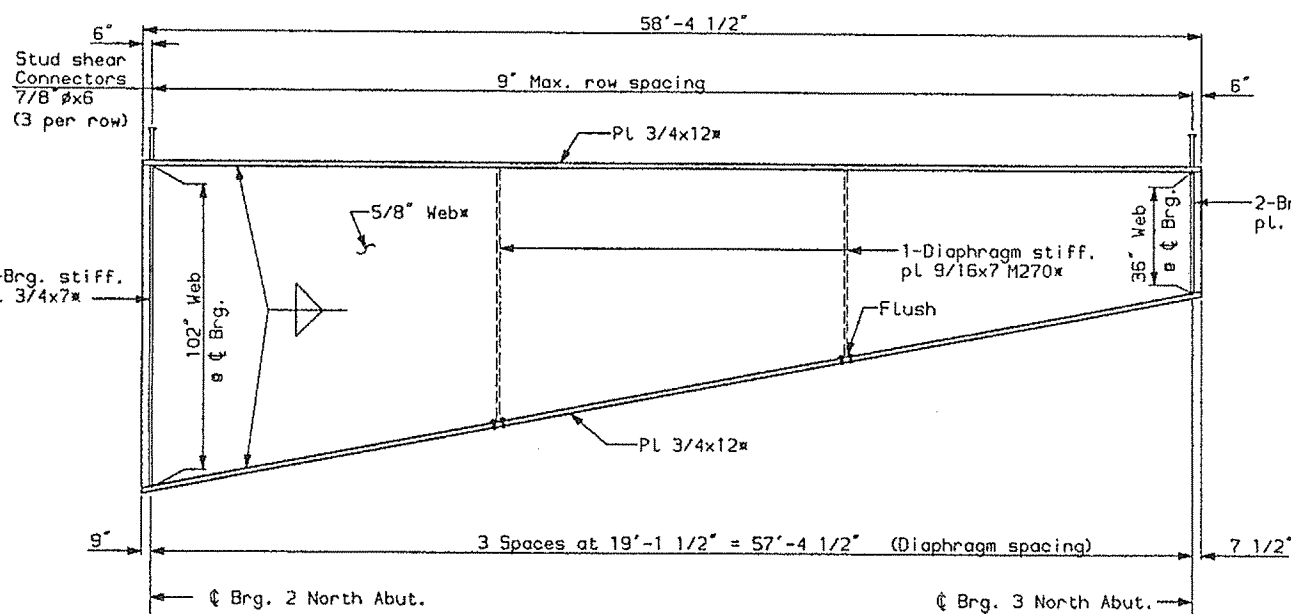


DETAIL A

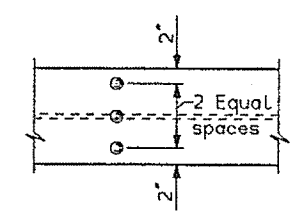


CAMBER DETAIL

Girder 1	1/10 th Point Camber (in.)
North Abutment Brg. 2	0.00
0.1	0.12
0.2	0.23
0.3	0.33
0.4	0.41
0.5	0.46
0.6	0.47
0.7	0.43
0.8	0.34
0.9	0.19
North Abutment Brg. 3	0.00



GIRDER 1



STUD SHEAR CONNECTOR TRANSVERSE SPACING

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-klps)			
	Girder 1	Girders 2, 3, & 4	Girder 5
DL	849	733	660
SDL	290	291	296
LL+I	1881	2152	1881
Total	3020	3176	2837

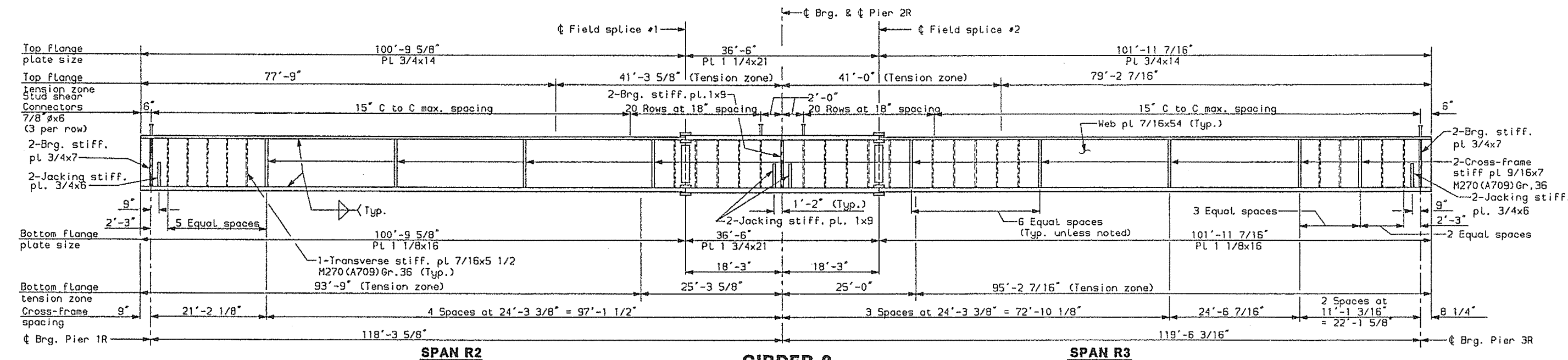
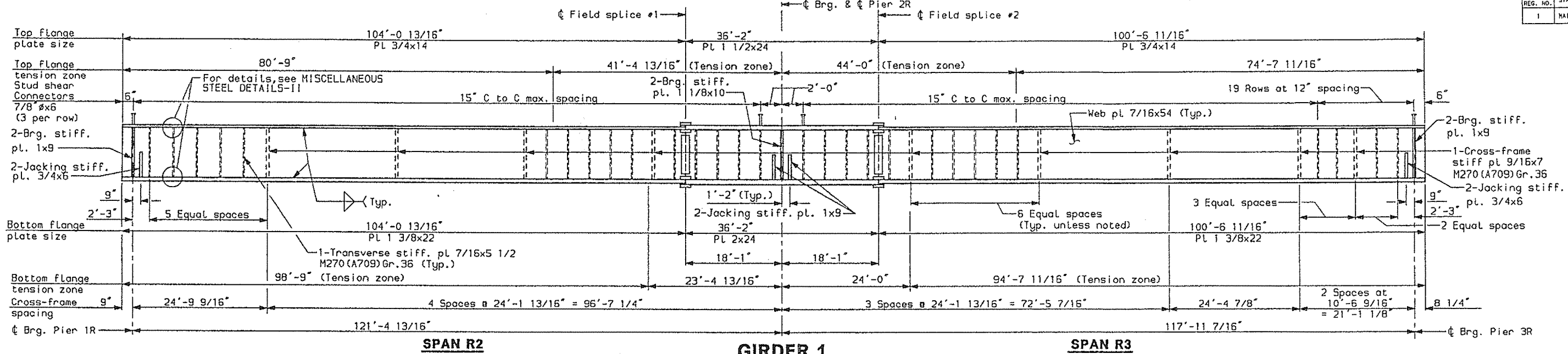
TABLE OF FACTORED MAXIMUM SHEARS (klps)			
	Girder 1	Girders 2, 3, & 4	Girder 5
DL+SDL	79	69	65
LL+I	152	188	152
Total	231	257	217

DESIGN-DETAILED
CHECKED
REVISION
FIELD CHANGES

PLANS

08.

n7. s91

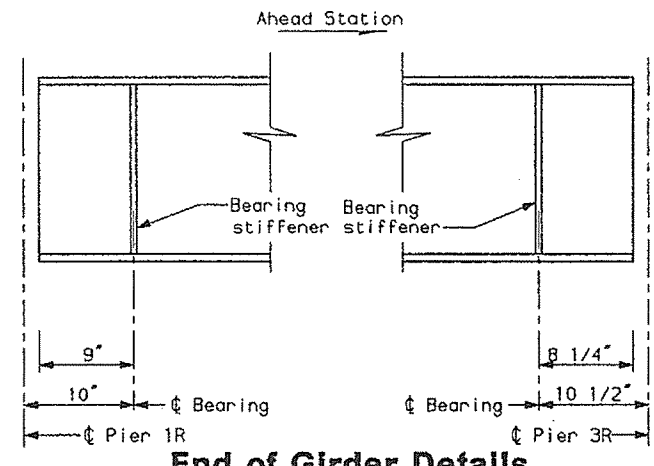


NOTES:
 Bearing stiffeners shall be parallel to the ϕ of bearing.
 Top and bottom girder flanges at Pier 1R shall be cut parallel to the ϕ of bearing.

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)				
	Span R2 Positive Moment	Pier 2R Negative Moment	Span R3 Positive Moment	
DL	1388	-3268	1170	
SDL	885	-1954	736	
LL+I (Positive)	3465	219	3393	
LL+I (Negative)	-789	-4145	-973	
Total (Pos.LL+I)	5738	-5003	5299	
Total (Neg.LL+I)	1484	-9367	933	

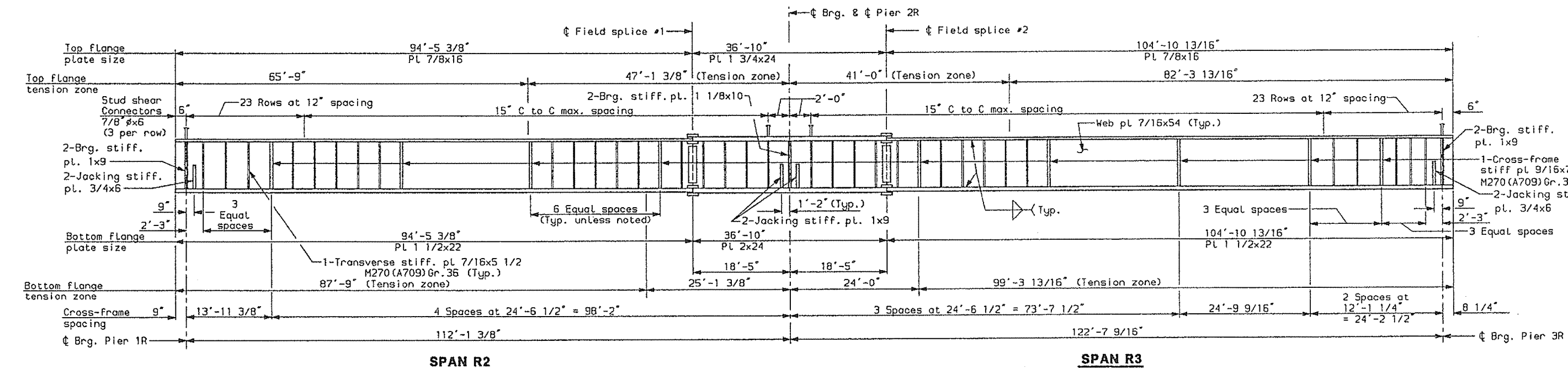
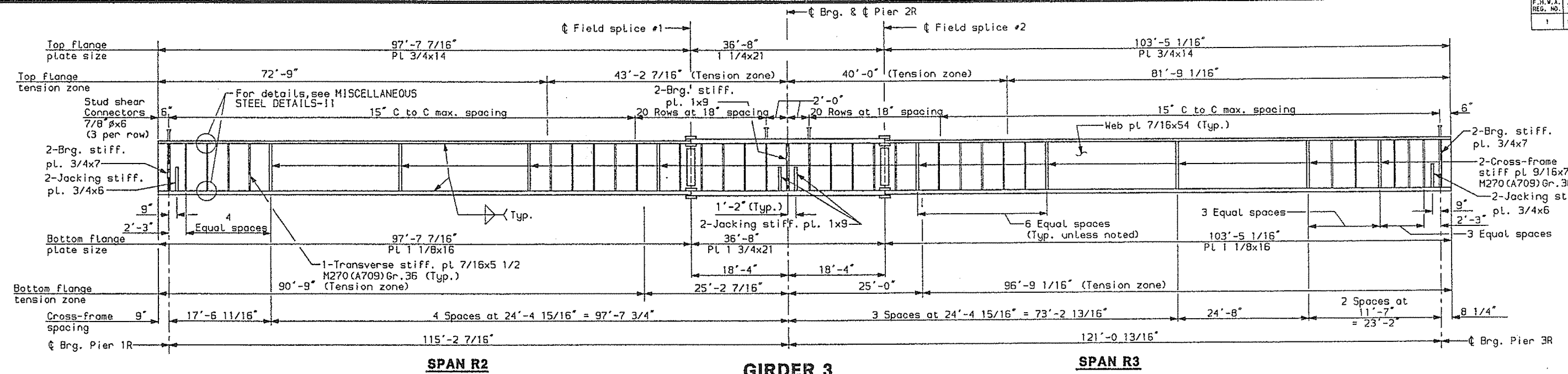
TABLE OF FACTORED MAXIMUM SHEARS (kips)				
	Span R2 Left	Span R2 Right	Span R3 Left	Span R3 Right
DL+SDL	108	-200	195	-85
LL+I (Positive)	145	15	180	39
LL+I (Negative)	-13	-178	-15	-143
Total (Pos.LL+I)	253	-163	375	-46
Total (Neg.LL+I)	95	-378	180	-228

TABLE OF UNFACTORED REACTIONS (kips)			
	Pier 1R	Pier 2R	Pier 3R
DL+SDL	84	304	65
LL (Max.)	56	110	55
LL (Min.)	-5	-9	-15
Total (Max.)	140	414	120
Total (Min.)	79	295	50



NORTH APPROACH
 STATE OF MA
 DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT
OVER FORE I
CUMBERLAND I
ELEVATION G
1 AND 2 SPAN
 SHEET 46 OF 156 AUGUSTA, 1981

PLANS
 DESIGNED BY: JAL
 CHECKED BY: B-94
 REVISION FIELD CHANGES
 DATE: 8-94

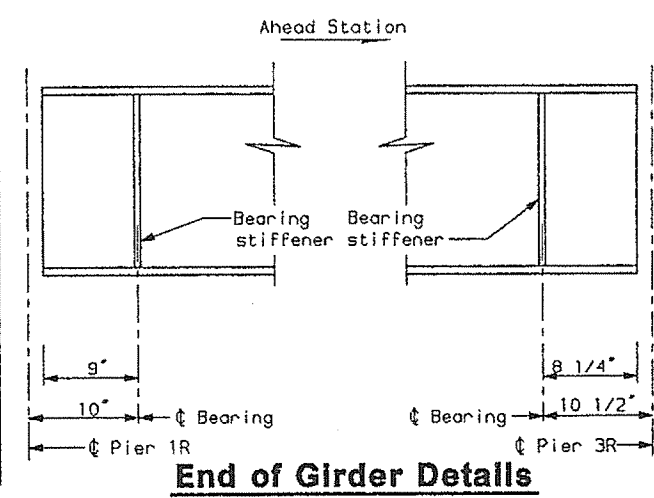


NOTES:
 Bearing stiffeners shall be parallel to the ϕ of bearing.
 Top and bottom girder flanges at Pier shall be cut parallel to the ϕ of bearing

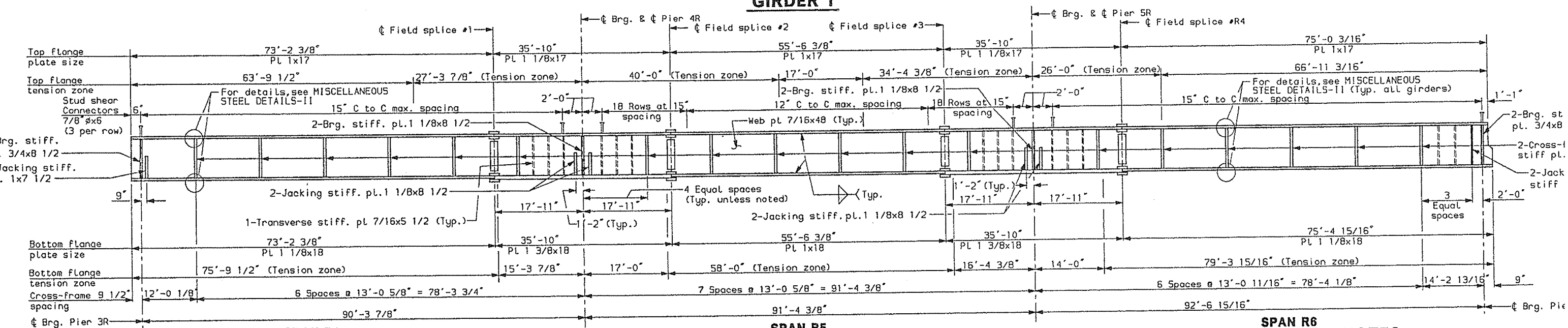
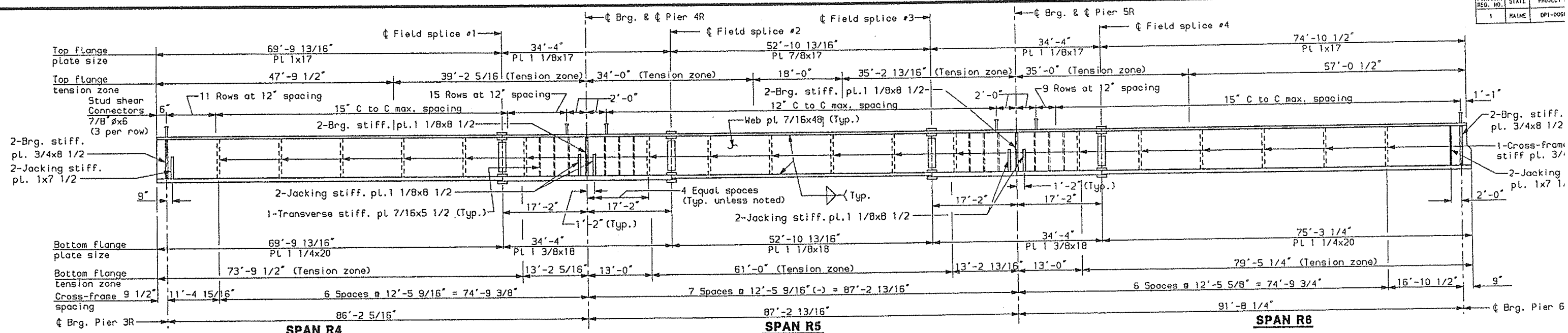
TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)				
	Span R2 Positive Moment	Pier 2R Negative Moment	Span R3 Positive Moment	
DL	1113	-2913	1346	Girder no. 3
SDL	593	-1369	698	
LL+I (Positive)	2392	0	2548	
LL+I (Negative)	-646	-3142	-505	
Total (Pos.LL+I)	4098	-4282	4592	
Total (Neg.LL+I)	1060	-7424	1539	
DL	1213	-3618	1728	Girder no. 4
SDL	754	-2139	1093	
LL+I (Positive)	3928	215	4171	
LL+I (Negative)	-1190	-4489	-884	
Total (Pos.LL+I)	5895	-5542	6992	
Total (Neg.LL+I)	777	-10246	1937	

TABLE OF FACTORED MAXIMUM SHEARS (kips)				
	Span R2 Left	Span R2 Right	Span R3 Left	Span R3 Right
DL+SDL	82	-143	148	-88
LL+I (Positive)	143	13	158	9
LL+I (Negative)	-13	-156	-13	-143
Total (Pos.LL+I)	225	-130	306	-79
Total (Neg.LL+I)	69	-299	135	-231
DL+SDL	105	-194	202	-133
LL+I (Positive)	180	15	184	20
LL+I (Negative)	-59	-178	-15	-180
Total (Pos.LL+I)	285	-179	386	-113
Total (Neg.LL+I)	46	-372	187	-313

TABLE OF UNFACTORED REACTIONS (kips)			
	Pier 1R	Pier 2R	Pier 3R
DL+SDL	63	223	68
LL (Max.)	55	97	55
LL (Min.)	-5	0	-4
Total (Max.)	118	320	123
Total (Min.)	58	223	64
DL+SDL	81	304	102
LL (Max.)	67	109	69
LL (Min.)	-22	-8	-8
Total (Max.)	148	413	171
Total (Min.)	59	296	94



NORTH APPROACH
 STATE OF MA
 DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT
OVER FORD
CUMBERLAND
ELEVATION C
3 AND 4 SPAN
 SHEET 47 OF 156 AUGUSTA,



NOTES:

Provide structural steel conforming (ASTM A709), Gr. 36 designation.

* See MISCELLANEOUS STEEL DETAILS 11.

Bearing stiffeners shall be parallel to the ϕ of bearing.

Top and bottom girder flanges at Pier shall be cut parallel to the ϕ of bearing.

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)					
	Span R4	Pier 4R	Span R5	Pier 5R	Span R6
	Positive Moment	Negative Moment	Positive Moment	Negative Moment	Positive Moment
DL	480	-1101	400	-1160	620
SDL	264	-651	192	-685	359
LL+I (Positive)	1785	314	1506	308	1874
LL+I (Negative)	-875	-1909	-771	-1957	-706
Total (Pos.LL+I)	2529	-1438	2098	-1537	2853
Total (Neg.LL+I)	-131	-3661	-179	-3802	273

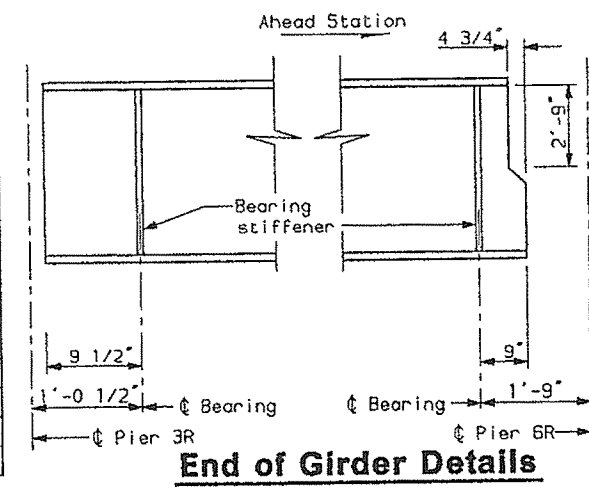
TABLE OF FACTORED MAXIMUM SHEARS (kips)					
	Span R4	Span R4	Span R5	Span R5	Span R6
	Left	Right	Left	Right	Left
DL+SDL	53	-117	122	-124	124
LL+I (Positive)	130	17	171	15	171
LL+I (Negative)	-41	-171	-17	-171	-15
Total (Pos.LL+I)	183	-100	293	-109	295
Total (Neg.LL+I)	12	-288	105	-295	109

TABLE OF UNFACTORED REACTIONS (kips)					
	Pier 3R	Pier 4R	Pier 5R	Pier 6R	
DL+SDL	41	185	189	55	
LL	(Max.) 49	83	85	48	
LL	(Min.) -16	-14	-13	-6	
Total	(Max.) 90	268	274	103	
Total	(Min.) 25	171	176	49	

TABLE OF FACTORED MAXIMUM SHEARS (kips)					
	Span R4	Span R4	Span R5	Span R5	Span R6
	Left	Right	Left	Right	Left
DL+SDL	53	-117	122	-124	124
LL+I (Positive)	130	17	171	15	171
LL+I (Negative)	-41	-171	-17	-171	-15
Total (Pos.LL+I)	183	-100	293	-109	295
Total (Neg.LL+I)	12	-288	105	-295	109

TABLE OF UNFACTORED REACTIONS (kips)					
	Pier 3R	Pier 4R	Pier 5R	Pier 6R	
DL+SDL	41	185	189	55	
LL	(Max.) 49	83	85	48	
LL	(Min.) -16	-14	-13	-6	
Total	(Max.) 90	268	274	103	
Total	(Min.) 25	171	176	49	

TABLE OF UNFACTORED REACTIONS (kips)					
	Pier 3R	Pier 4R	Pier 5R	Pier 6R	
DL+SDL	41	185	189	55	
LL	(Max.) 49	83	85	48	
LL	(Min.) -16	-14	-13	-6	
Total	(Max.) 90	268	274	103	
Total	(Min.) 25	171	176	49	



NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT

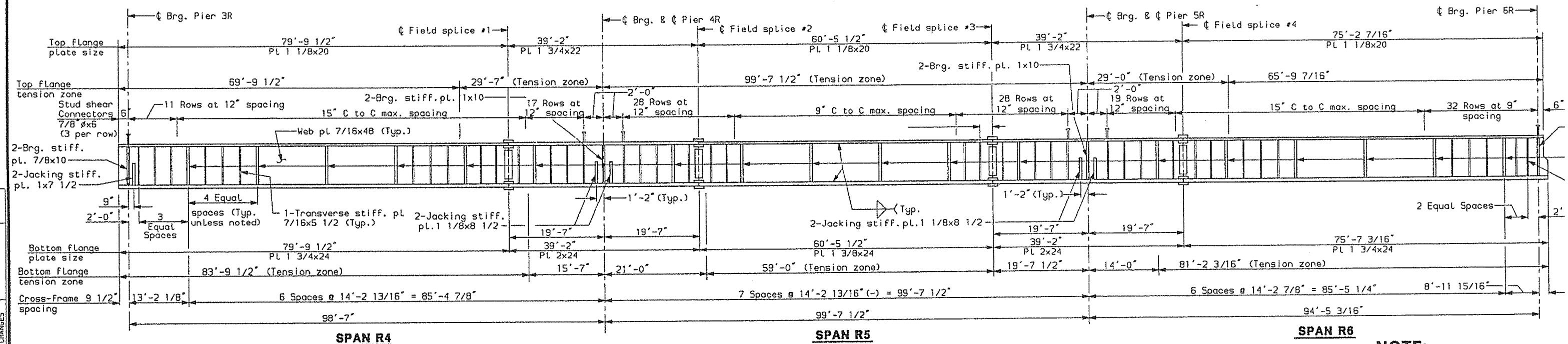
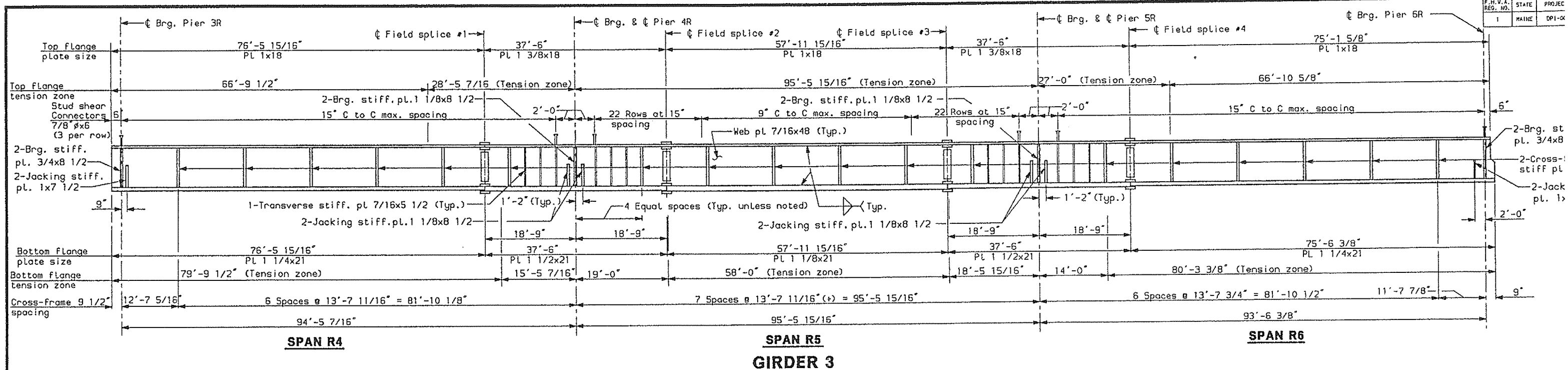
OVER FORD

CUMBERLAND

ELEVATION C

1 AND 2 SPAN

SHEET 48 OF 156 AUGUST, 1981



NOTE:
Provide structural steel conforming (ASTM A709), Gr. 36 designation.

TABLE OF FACTORED MAXIMUM MOMENTS (ft.-kips)

	Span R4 Positive Moment	Pier 4R Negative Moment	Span R5 Positive Moment	Pier 5R Negative Moment	Span R6 Positive Moment
DL	1119	-1628	233	-1485	1057
SDL	542	-749	117	-679	501
LL+I (Positive)	2269	-457	1818	-533	2108
LL+I (Negative)	-546	-2310	-878	-2210	-579
Total (Pos.LL+I)	3930	-1920	2168	-1631	3666
Total (Neg.LL+I)	1115	-4687	-528	-4374	979

Girder no. 3	DL	1785	-2128	183	-1871	1663
	SDL	933	-1273	148	-1141	857
	LL+I (Positive)	4095	-689	3127	-810	3924
	LL+I (Negative)	-1112	-3224	-1597	-3053	-1140
	Total (Pos.LL+I)	6813	-2712	3458	-2202	6444
	Total (Neg.LL+I)	1606	-6625	-1266	-6065	1380

TABLE OF FACTORED MAXIMUM SHEARS (kips)

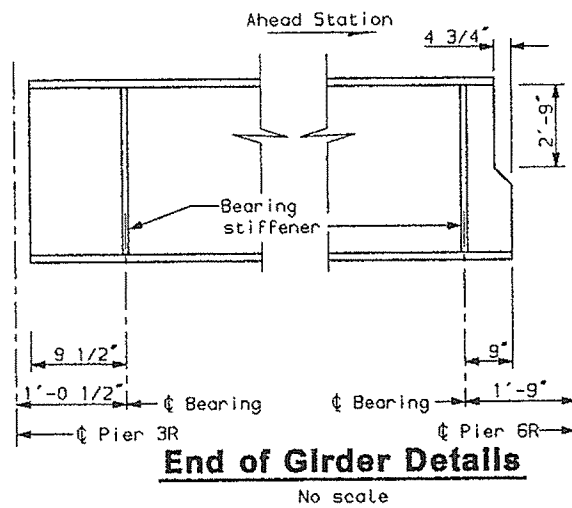
	Span R4 Left	Span R4 Right	Span R5 Left	Span R5 Right	Span R6 Left	Span R6 Right
DL+SDL	81	-134	104	-99	126	-72
LL+I (Positive)	145	13	176	15	180	7
LL+I (Negative)	-13	-178	-13	-178	-15	-130
Total (Pos.LL+I)	226	-121	280	-84	305	-65
Total (Neg.LL+I)	68	-312	91	-277	111	-202

Girder no. 3	DL+SDL	137	-161	117	-113	155	-144
	LL+I (Positive)	210	13	225	15	234	45
	LL+I (Negative)	-30	-234	-13	-225	-15	-232
	Total (Pos.LL+I)	347	-148	342	-98	389	-98
	Total (Neg.LL+I)	107	-395	104	-338	140	-376

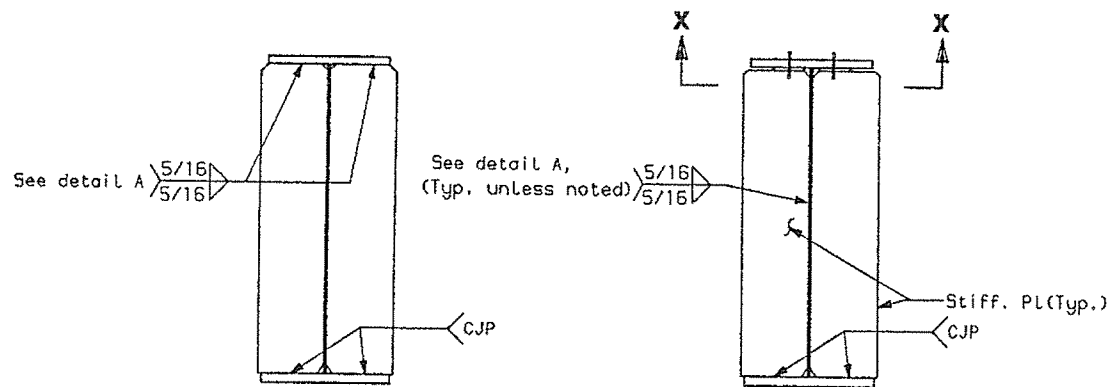
TABLE OF UNFACTORED REACTIONS (kips)

	Pier 3R	Pier 4R	Pier 5R	Pier 6R
DL+SDL	62	185	174	55
LL (Max.)	55	87	85	53
LL (Min.)	-5	-10	-12	-3
Total (Max.)	117	272	259	108
Total (Min.)	57	175	162	52

Girder no. 3	DL+SDL	106	214	206	112
	LL (Max.)	79	85	83	86
	LL (Min.)	-12	-10	-12	-17
	Total (Max.)	185	299	289	198
	Total (Min.)	94	204	194	95

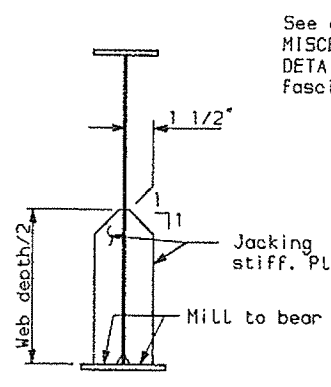


NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
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OVER FORE CUMBERLAND
ELEVATION C 3 AND 4 SPAN
SHEET 49 OF 156 AUGUSTA



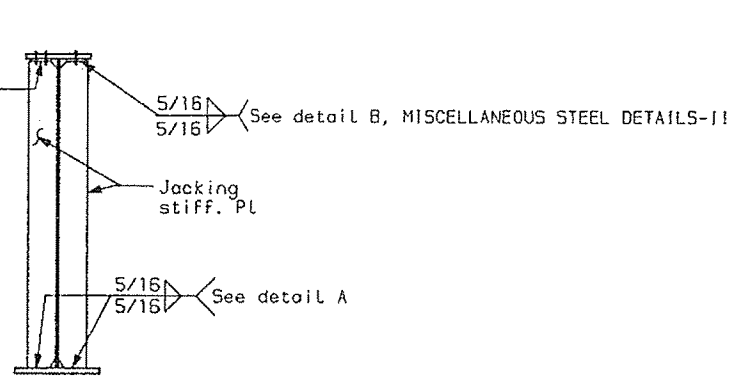
(At N. Bascule Pier, Piers 4N, 1R, 3R, 6R and N. Abutment Brg. No. 1) (ALL other piers)

BEARING STIFFENER DETAIL



TYPICAL

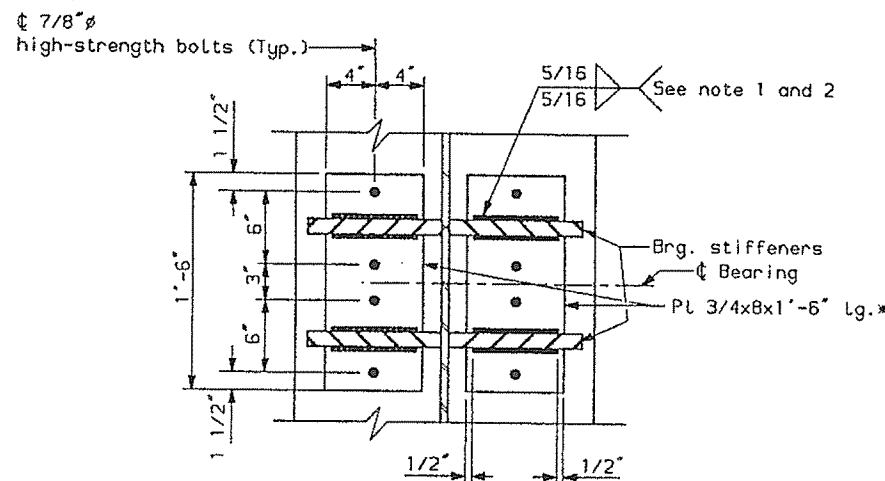
AT TRAFFIC GATE LOCATIONS



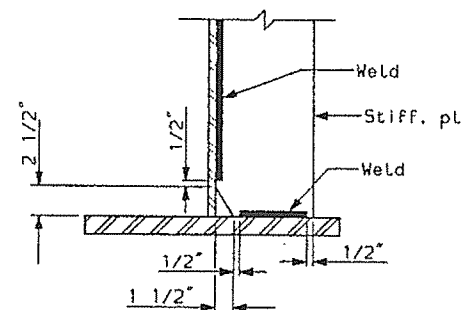
JACKING STIFFENER DETAIL

NOTES:

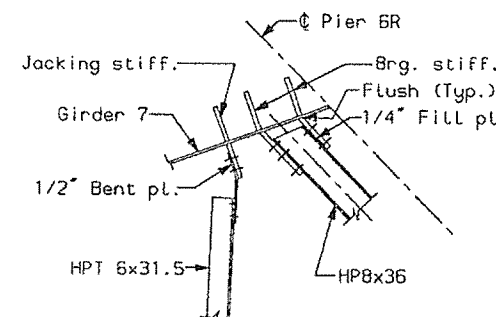
- AASHTO M270 (ASTM A709) Gr. 36
- 1. ALL welds which connect stiffeners to either a Flange or web plate, shall be stopped approximately 1/2" from the end of the stiffener plate.
- 2. Bolt tension-flange connection plate to FL welding stiffener or diaphragm connection p



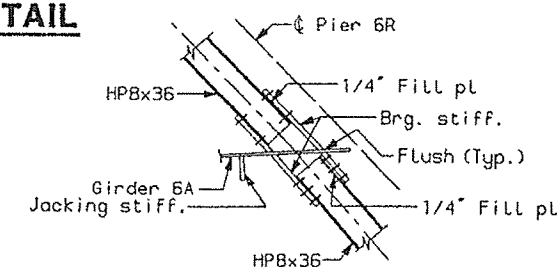
SECTION X-X



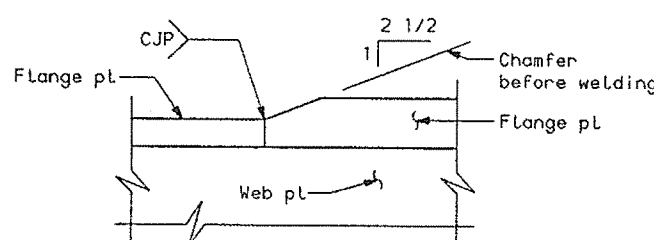
DETAIL A



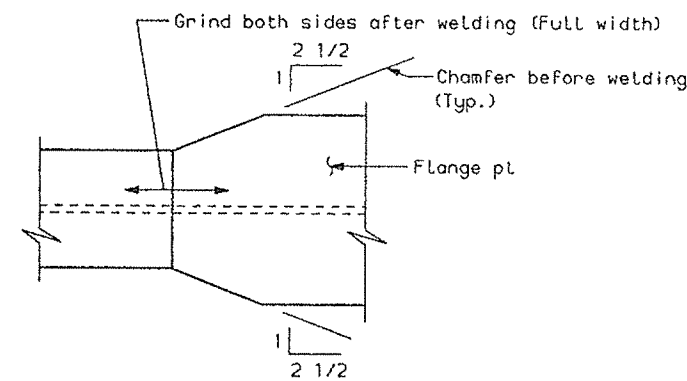
GIRDER 7 DETAIL



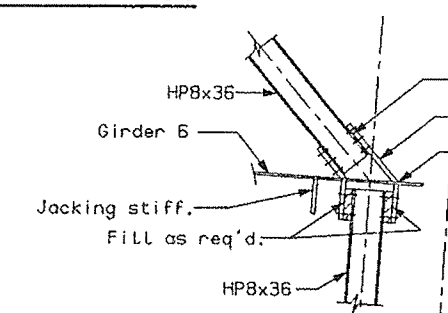
GIRDER 6A DETAIL



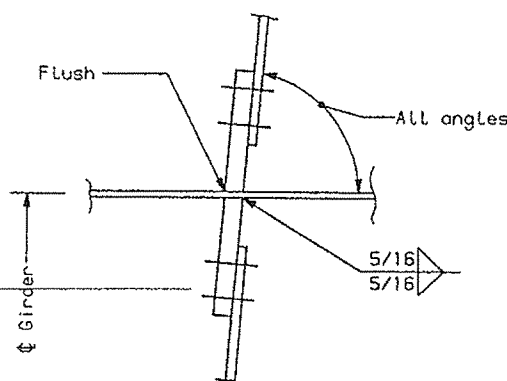
FLANGE SPLICE DETAIL



FLANGE SPLICE DETAIL

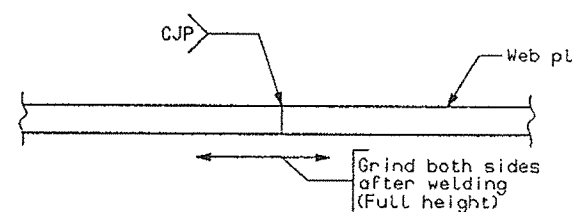


GIRDER 6 DETAIL



STIFFENER FABRICATION AND CONNECTION DETAIL

(At cross-frame and bearing stiffeners)



OPTIONAL WEB SPLICE DETAIL

NORTH APPROX

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OVER FORE
CUMBERLAND

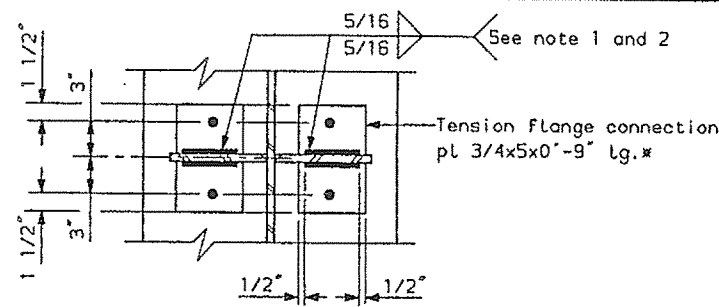
MISCELLANEOUS
STEEL DETAILS

SHEET 50 OF 156 AUGUSTA

DESIGN	BY	DATE
DESIGN-Detailed	HCI	5-94
CHECKED	PDB	6-94
REVISION		
FIELD CHANGES		

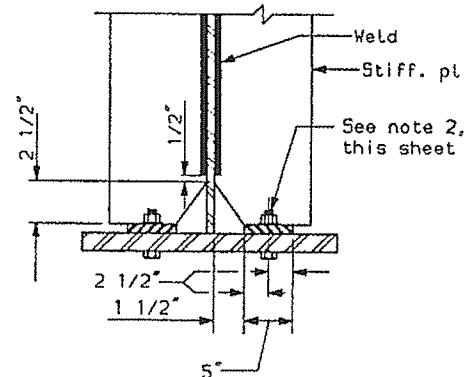
PLANS

na-grd. det1a



PLAN OF DETAIL B

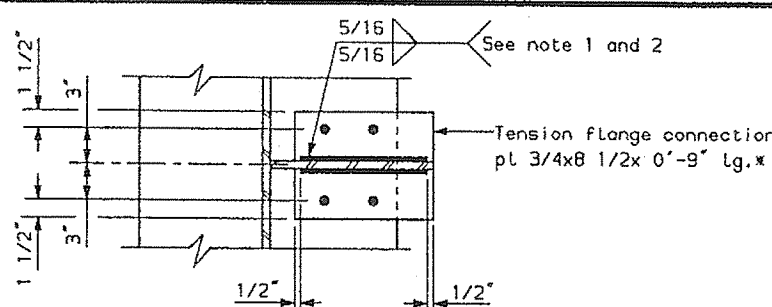
(Typ. top and bottom flanges, see note 3)



DETAIL B

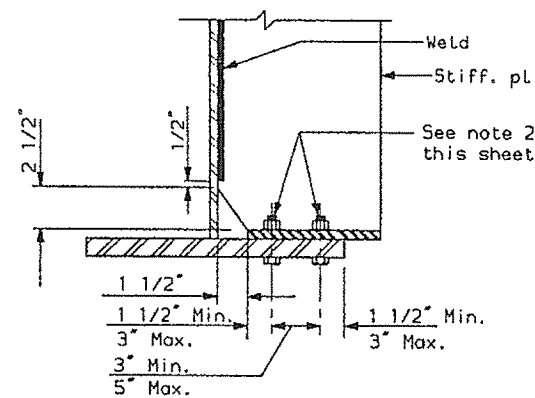
(Typ. top and bottom flanges)

(Interior girder cross-frame stiffeners shown, interior and exterior girder transverse stiffeners similar, Bottom flange shown, top flange similar)



PLAN OF DETAIL C

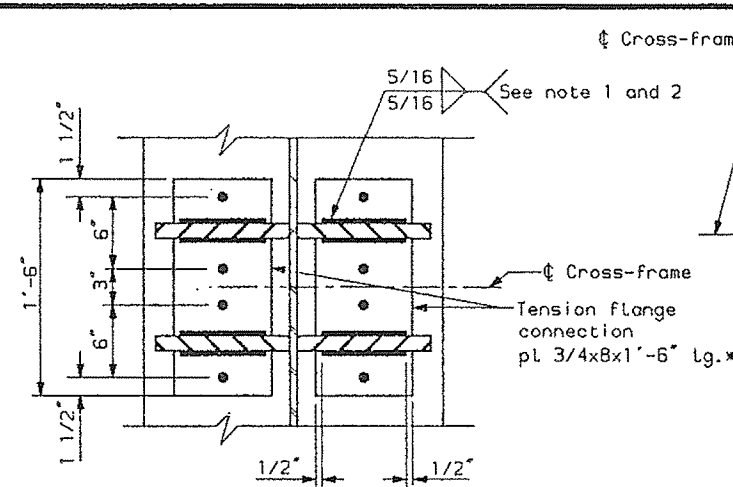
(Typ. top and bottom flanges, see note 3)



DETAIL C

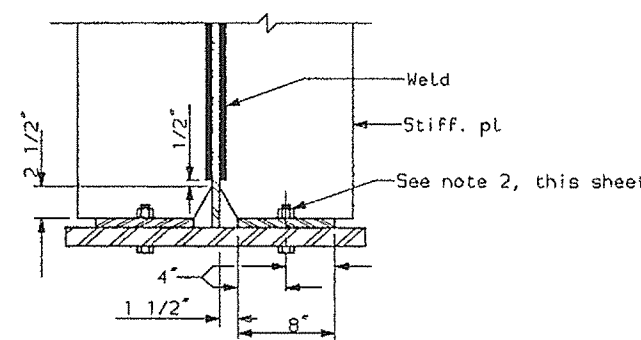
(Typ. top and bottom flanges)

(Exterior girder, spans N1-N6, Interior girders, spans R4-R6, Bottom flange shown, top flange similar.)



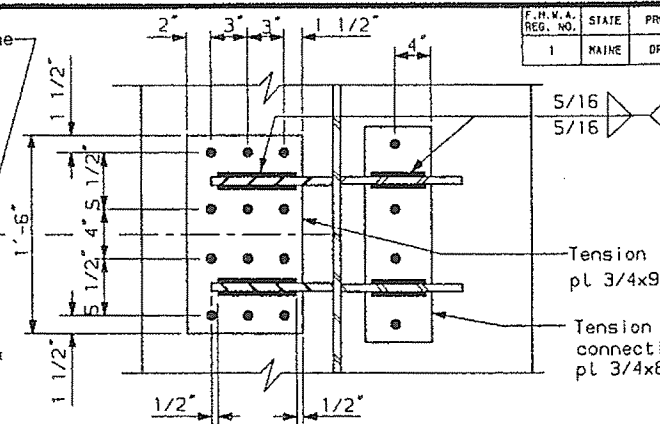
PLAN OF DETAIL D

(Typ. bottom flange, see note 3)



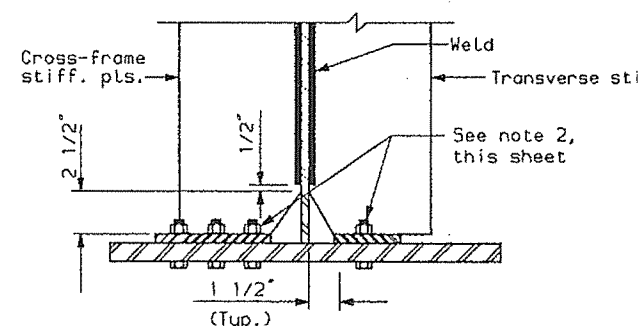
DETAIL D

(Typ. bottom flange at type V cross-frames, span N4, girders 2,3 and 4)



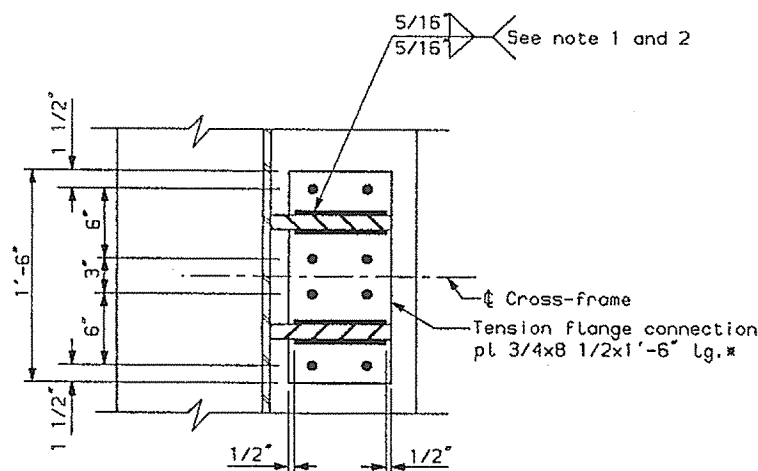
PLAN OF DETAIL E

(Typ. bottom flange, see note 3)



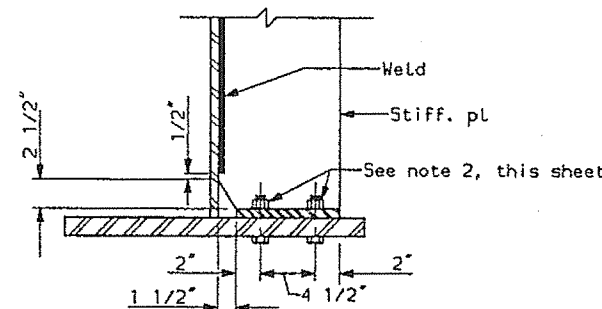
DETAIL E

(Typ. bottom flange at Type V cross-frames, span N4, girders 5 & 6)



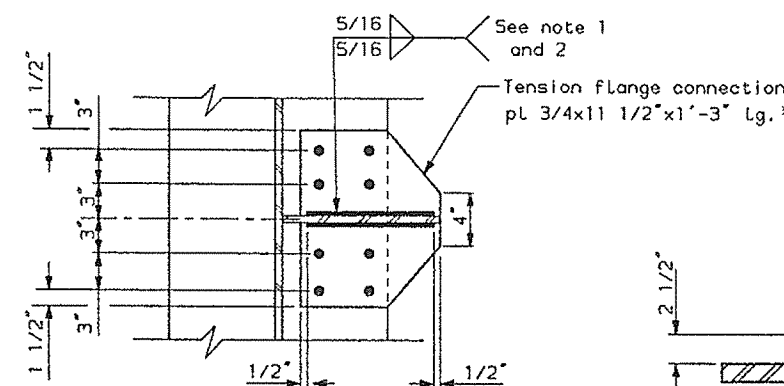
PLAN OF DETAIL F

(Typ. bottom flange, see note 3)



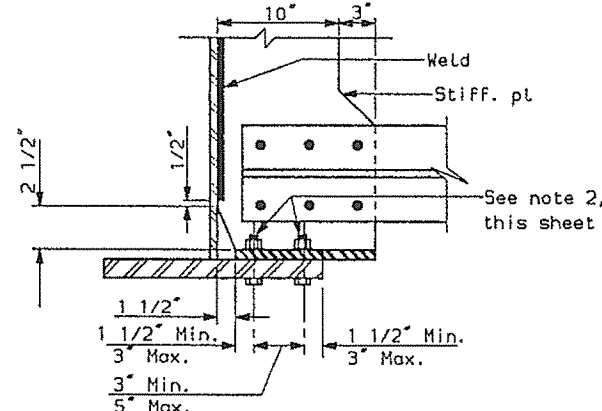
DETAIL F

(Typ. bottom flange at type V cross-frames, span N4, girder 7)



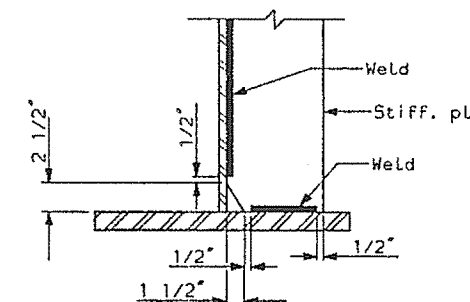
PLAN OF DETAIL G

(Typ. bottom flange, see note 3)



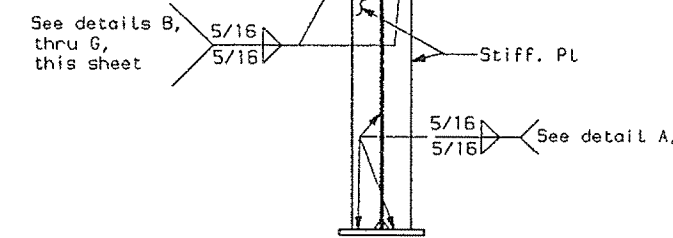
DETAIL G

(Girders 6A and 7, N4-13 thru N4-15, girders 1 and 4, R3-5 and R3-6, R4-2 thru R4-7, R5-2 thru R5-7, and R6-2 thru R6-7)

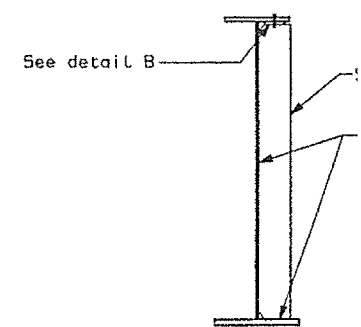


DETAIL A

(See note 3)



CROSS-FRAME STIFFENER DETAIL



TRANSVERSE STIFFENER DETAIL

NOTES:

- * AASHTO M270 (ASTM A709) Gr. 36
- 1. All welds which connect stiffeners to either a flange or web plate, shall be started and stopped approximately 1/2" from the ends or edges of the stiffener plate.
- 2. Bolt tension-flange connection plate to flange before welding stiffener or diaphragm connection plate to it.
- 3. Provide tension flange connection plate for the top and/or bottom of all transverse stiffener plates and/or cross-frame stiffener plates located within a flange tension zone. Flange tension zones are indicated on the girder elevation sheets. Otherwise, provide welded flange connection as shown in Detail A.

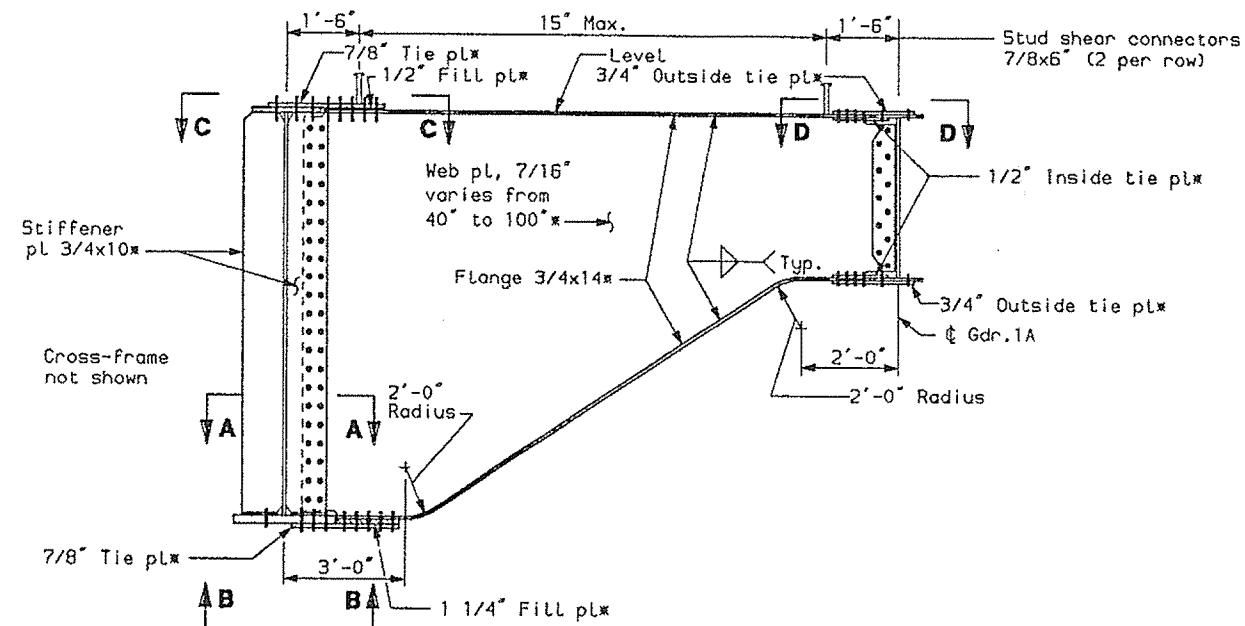
NORTH APPROX

STATE OF MAINE
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OVER FORE
CUMBERLAND**

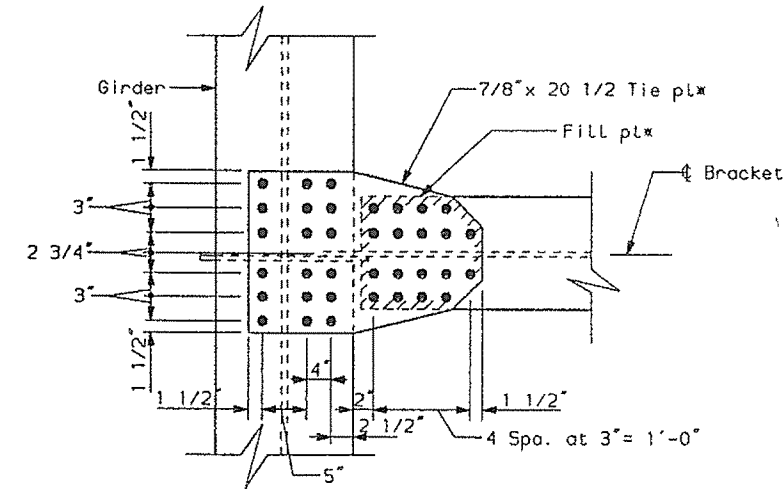
**MISCELLANEOUS
STEEL DETAILS**

PROJECT	DESIGN ENGINEER	DATE
PLANS	DESIGN-DETAILED	6-94
	CHECKED	6-94
	REVISION	
	FIELD CHANGES	

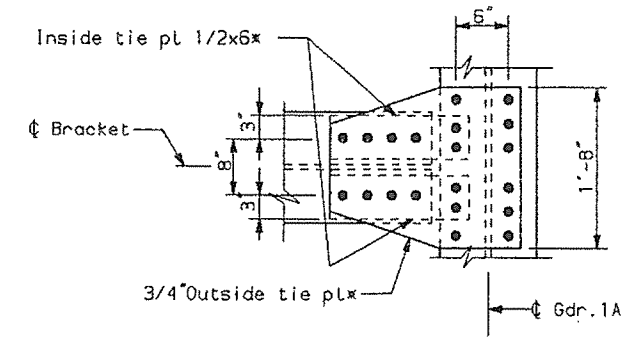


PARKING AREA BRACKET

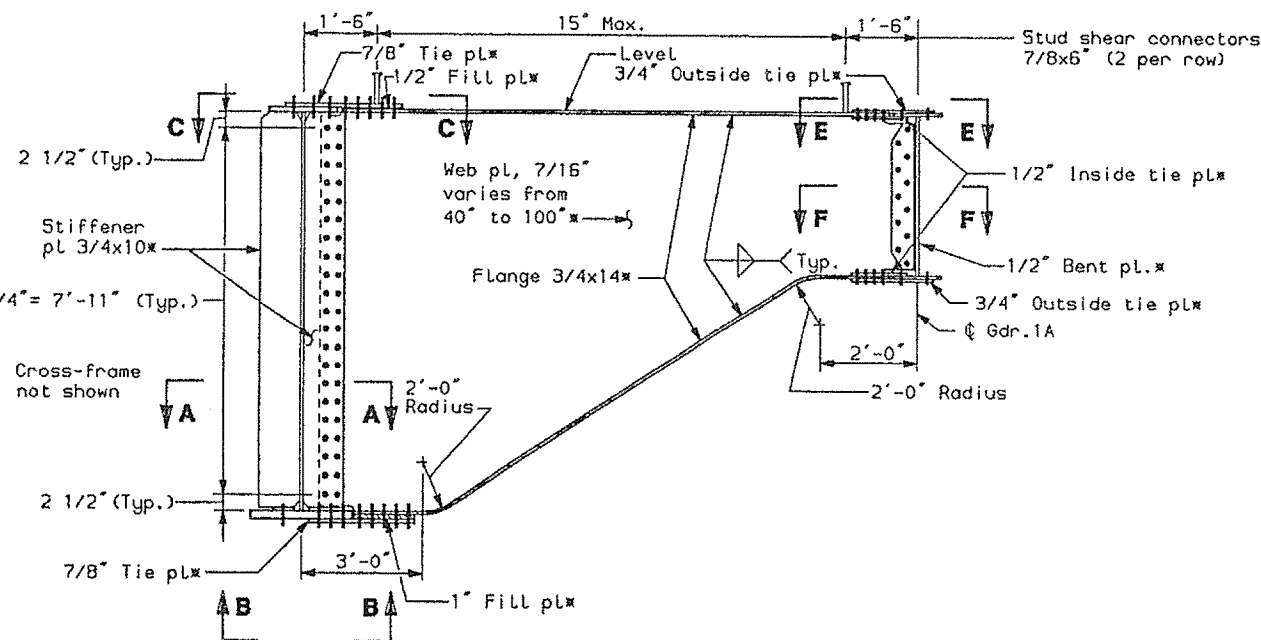
(Cross-frame N1-3, N1-4 and N1-5)
(Span N1)



SECTION C-C

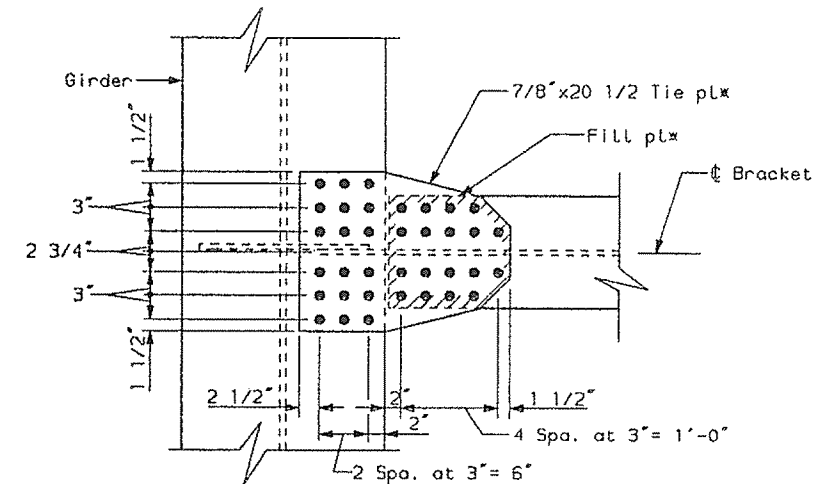


SECTION D-D

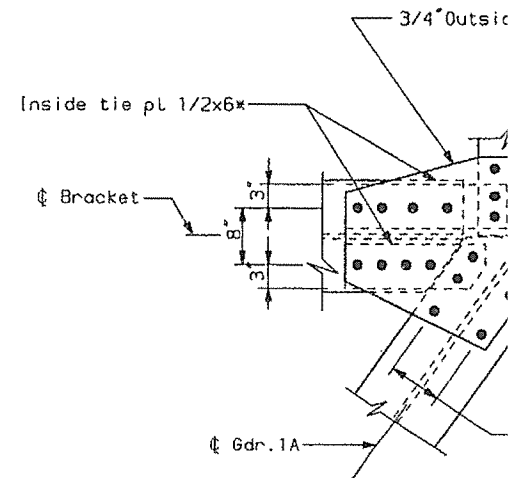


PARKING AREA BRACKET

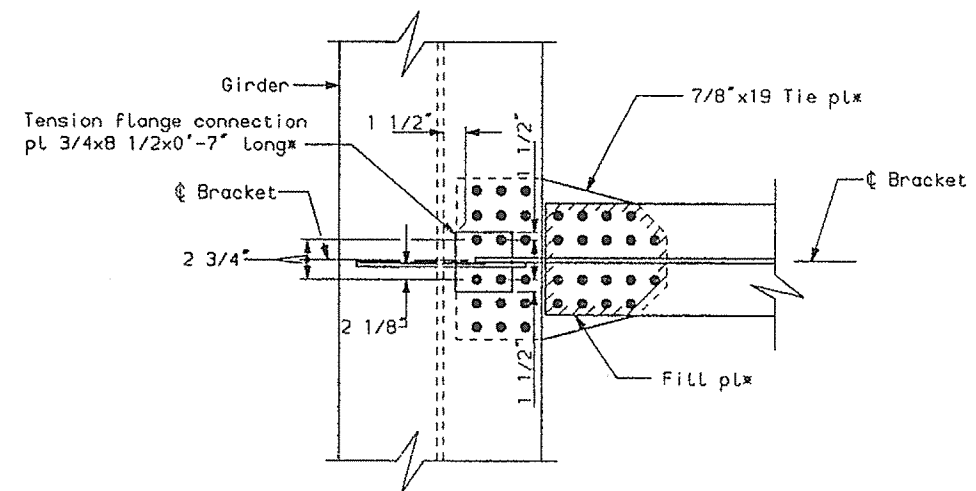
(Cross-frame N1-2 and N1-5)
(Span N1)



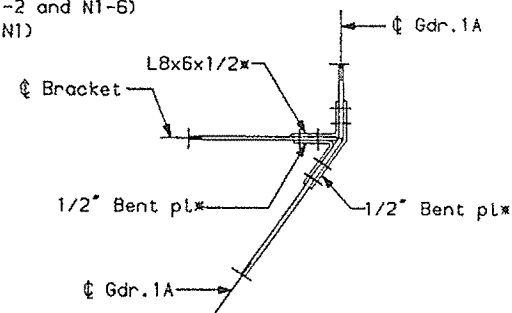
SECTION B-B



SECTION E-E



SECTION A-A



SECTION F-F

NOTES:

*AASHTO M270 (ASTM A709)

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OVER FORE
CUMBERLAND

MISCELLAN
STEEL DETAIL

SHEET 52 OF 156 AUGUSTA,

PR	DESIGN	ER	DATE
	DESIGN-DETAILED	ELS	6-94
	CHECKED	PDB	6-94
	REVISION		
	FIELD CHANGES		

PLANS

4-8-94

na.gdr.det

Threaded bar notes:

1" Diameter threaded bar and L5x3x3/8 shall conform to the requirements of ASTM A36.

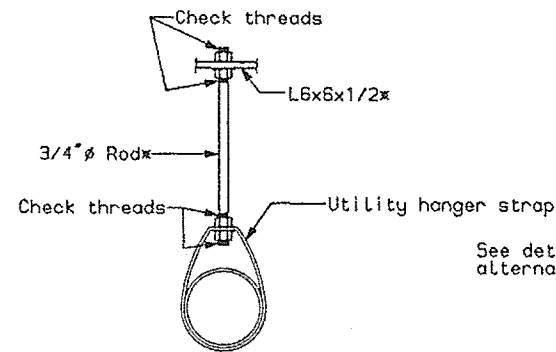
1" Diameter threaded bars, bar nuts and washers shall be galvanized to the requirements of ASTM A123 and ASTM A153.

1" diameter threaded bar nuts shall conform to ASTM A563, heavy hex, grade A.

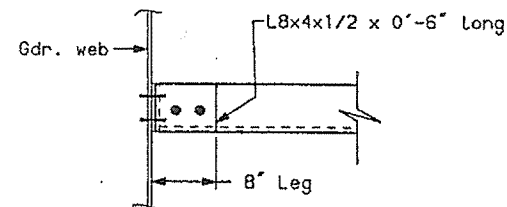
Threaded bars shall be placed on both sides of all interior girders except place only on western face of girder 2. Threaded bars shall also be placed on the inside face of the west exterior girder.

Termination and splicing of threaded bar shall occur at stiffener plates only.

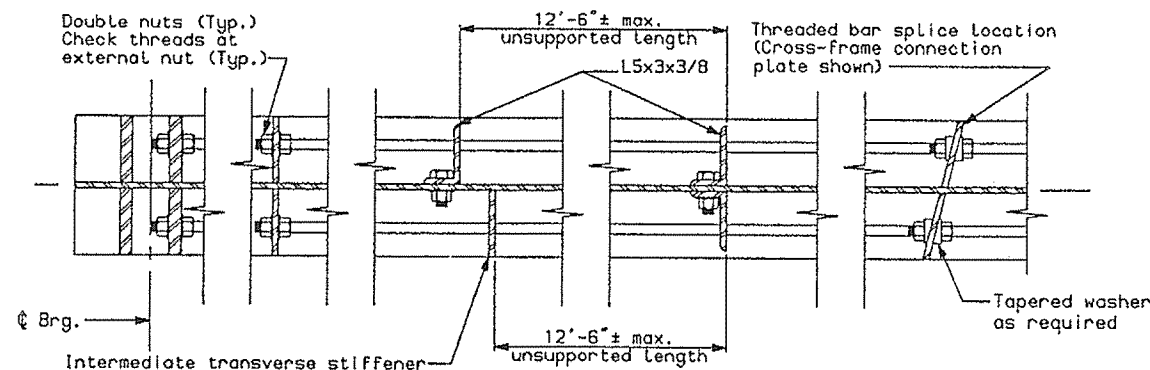
Stiffeners used as termination and splice plates shall be 1/2" thick, minimum. Angle supports shall be used at intermediate locations only.



DETAIL A

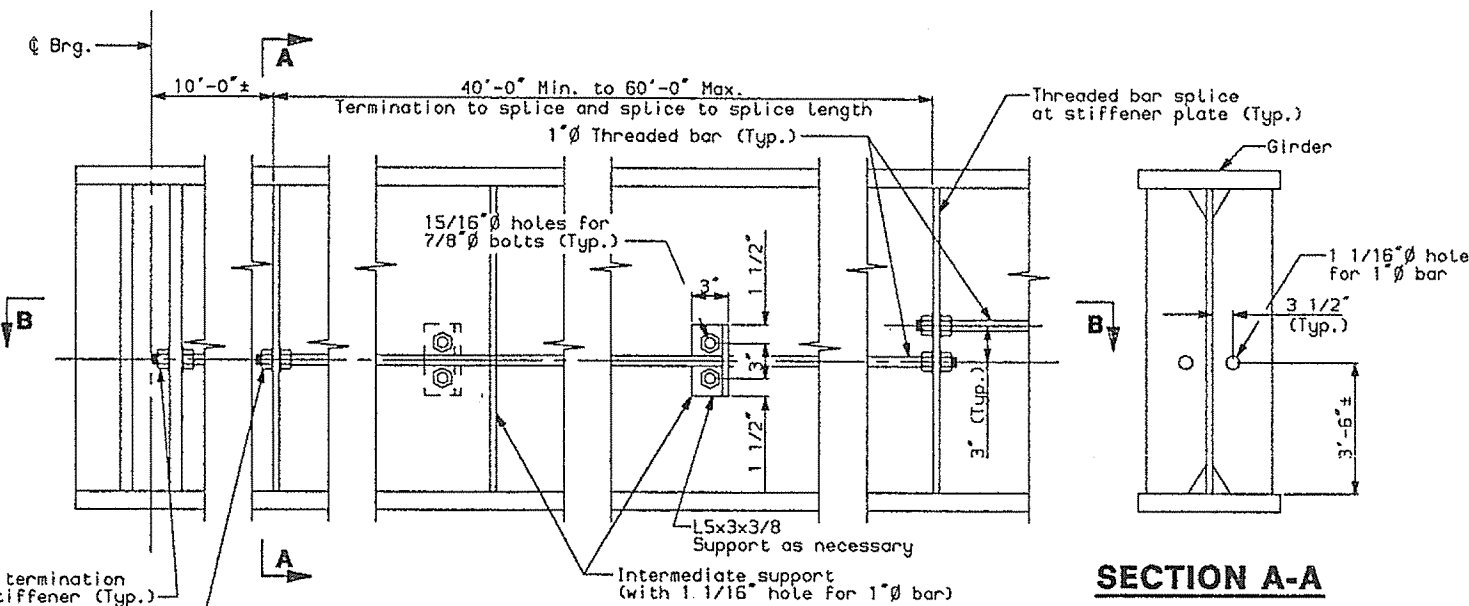


DETAIL B



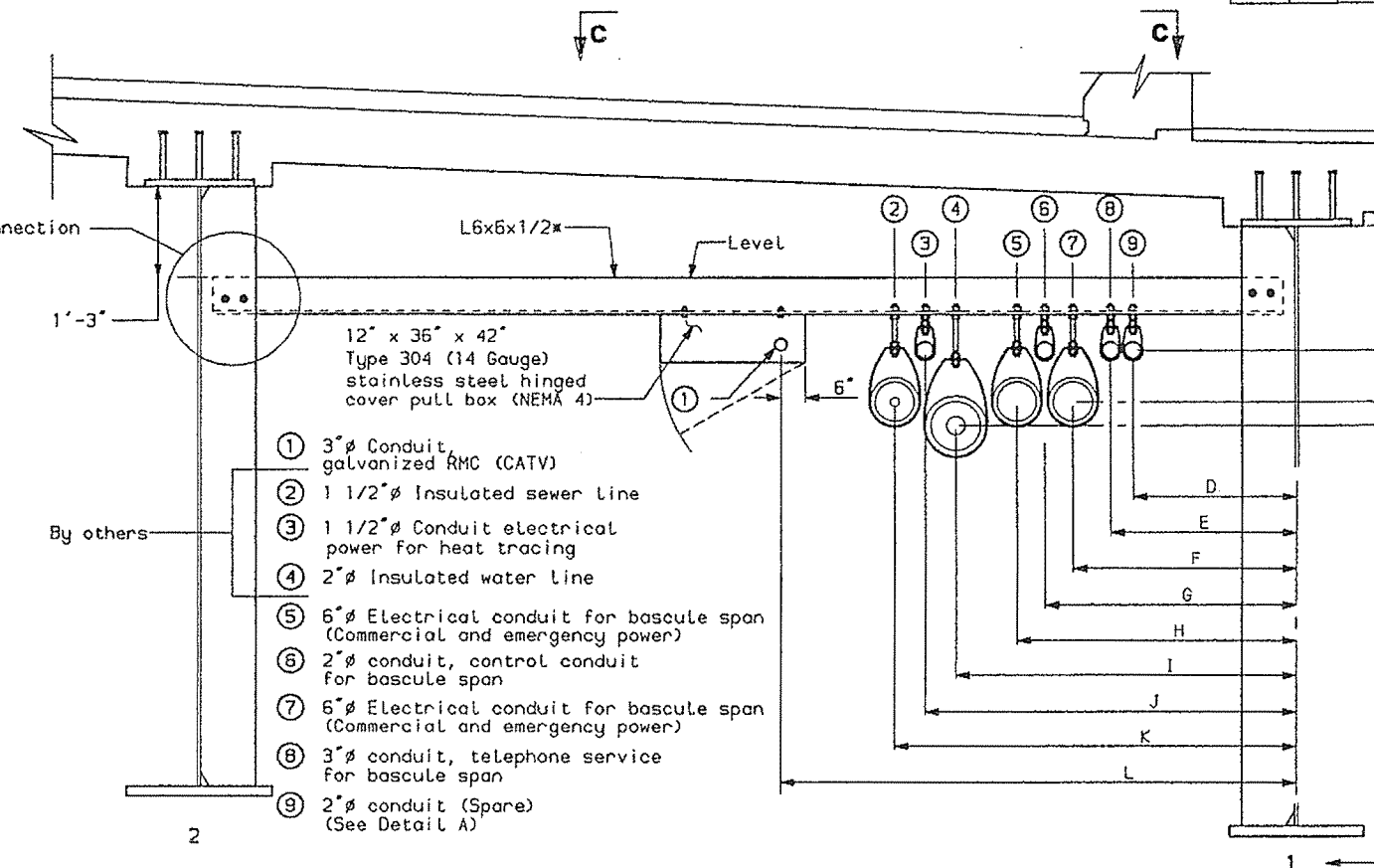
SECTION B-B

STRUCTURAL STEEL THREADED BAR DETAIL



GIRDER ELEVATION
(Interior girder shown)

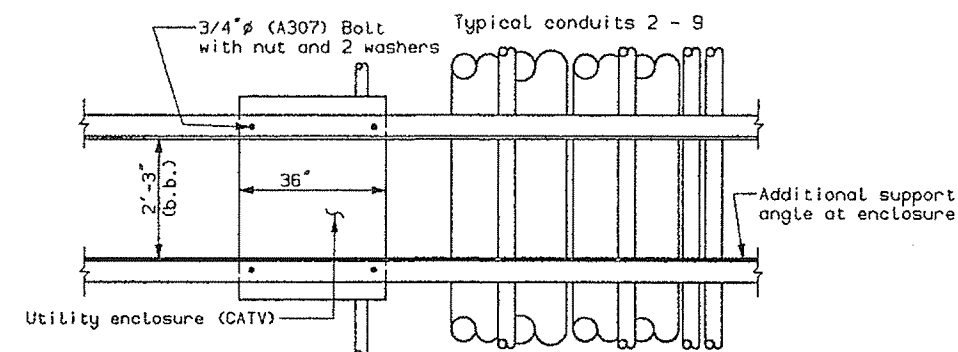
SECTION A-A



Crossframe Location	Dimensions (inches)											
	A	B	C	D	E	F	G	H	I	J	K	L
N1-1	28	33	37	23	26	31	35	39	49	55	60	67
N1-2 to N2-11	24	29	33	27	30	35	39	43	53	59	64	128
N3-1 to N4-18	24	29	33	—	30	—	—	—	53	59	64	128
N5-1 to N6-10	23 1/4	28 1/4	32 1/4	—	30	—	—	—	53	59	64	128
N6-11	23 1/4	28 1/4	32 1/4	—	48	—	—	—	53	59	64	71
N7-1	30	33	37	—	48	—	—	—	53	59	64	71
N7-2 to N7-4	30	30	30	—	48	—	—	—	53	59	64	71

**UTILITY SUPPORT AT INTERMEDIATE LOCATION
SHOWING UTILITY ENCLOSURE BOX**

(Supports at cross-frames similar)
(Utility enclosure box located between crossframes N4-1 and N4-2)



SECTION C-C
(At CATV utility enclosure)

NOTE:

* AASHTO M270 (ASTM A709) Gr. 36.
Submit details of conduit expansion/deflection fittings and conduit hangers to the Department for approval prior to use.
For conduit details at Pier 2N, see INSPECTION WALK LOCATION PLAN.
Pay limit for utility conduits and associated materials N.B.L. Sta. 240+19.55 to Sta. 253+89.77.

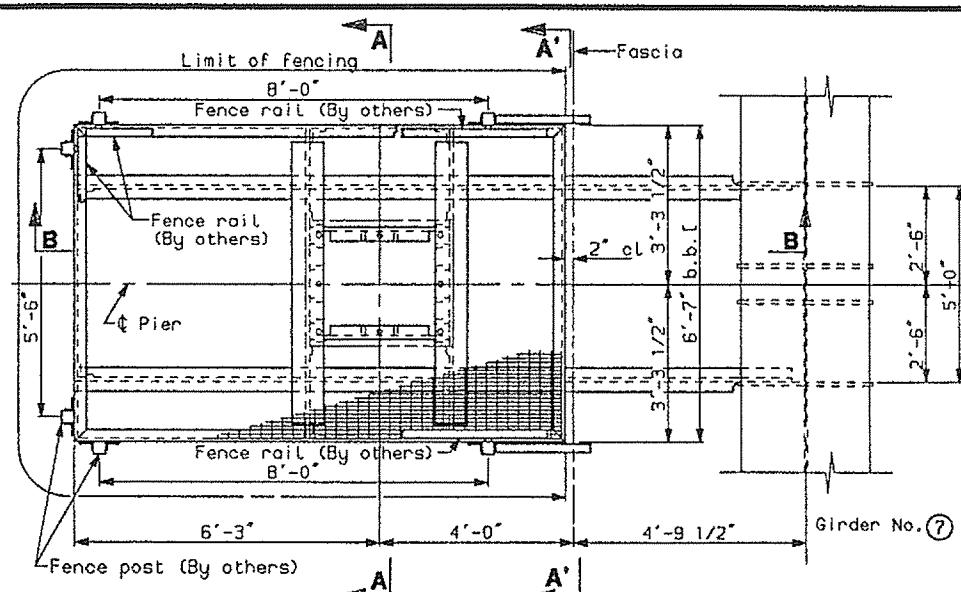
NORTH APPROX

STATE OF MA
DEPARTMENT OF TRAN

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OVER FORE
CUMBERLAND**

**MISCELLAN
STEEL DETA**

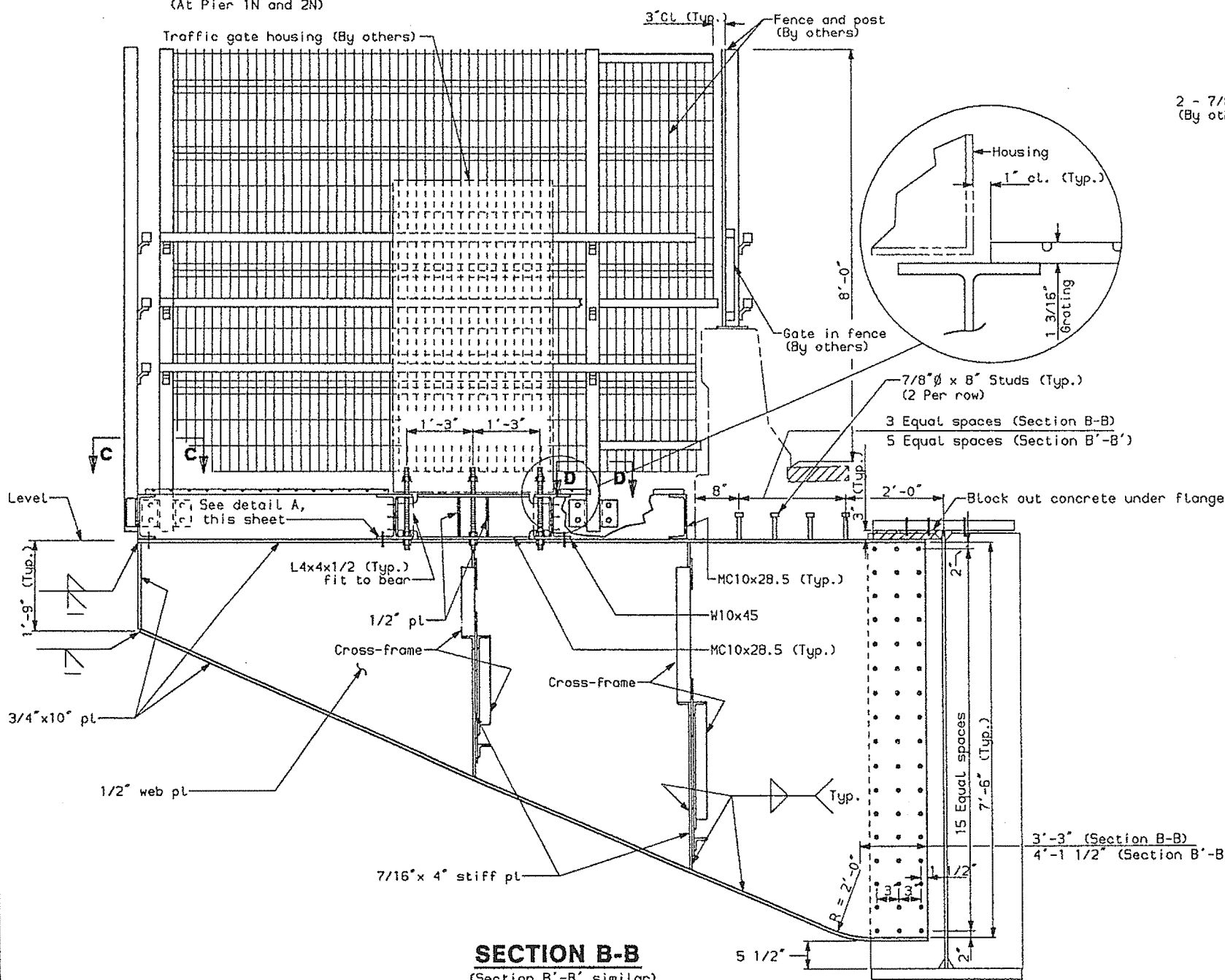
SHEET 53 OF 156 AUGUSTA,



PLAN

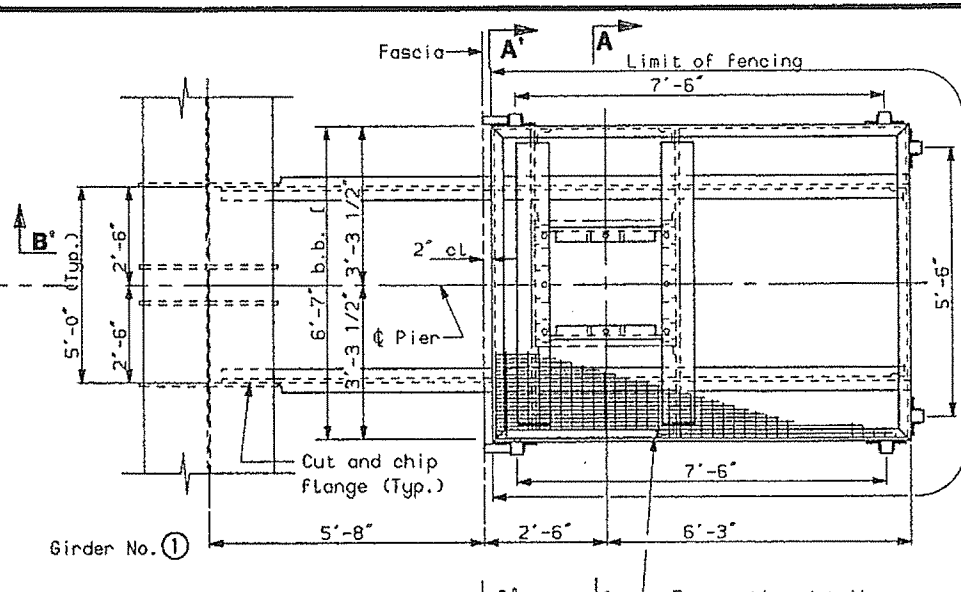
(At Pier 1N and 2N)

TRAFFIC GATE MAINTENANCE PLATFORM DETAILS



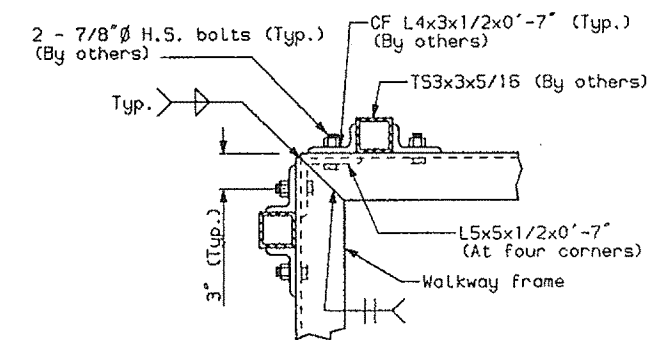
SECTION B-B

(Section B'-B' similar)

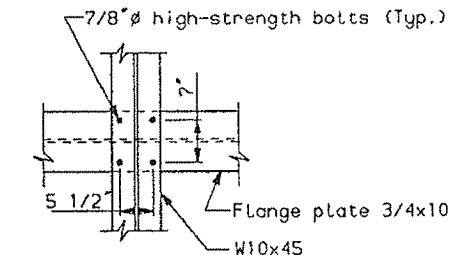


PLAN

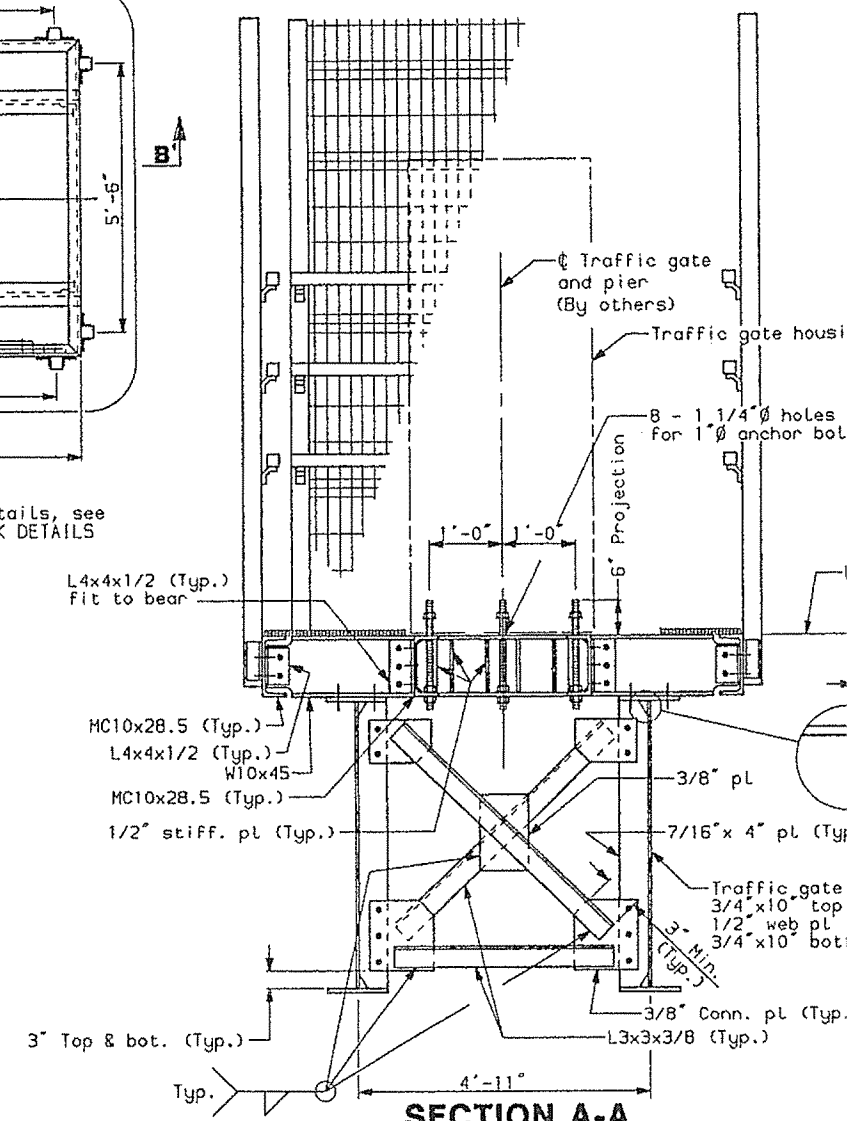
(At Pier 1N)



SECTION C-C



DETAIL A

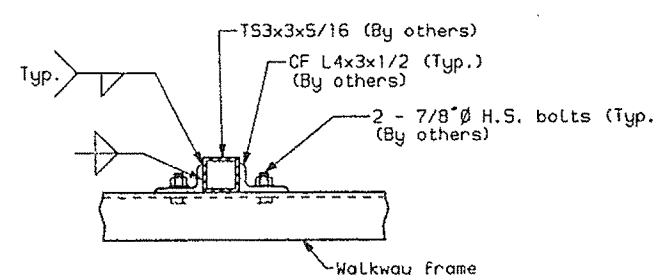


SECTION A-A

Section A'-A' similar

NOTES:

All grating shall be galvanized 1"x3/16" bearing bars on 1 3/16" or mechanically fastened.
All structural steel on this s
AASHTO M270 (ASTM A709), Gr. 36,



SECTION D-D

NORTH APPROACH

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DEPARTMENT OF TRAN

**PORTLAND - S. PORT
OVER FORD
CUMBERLAND**

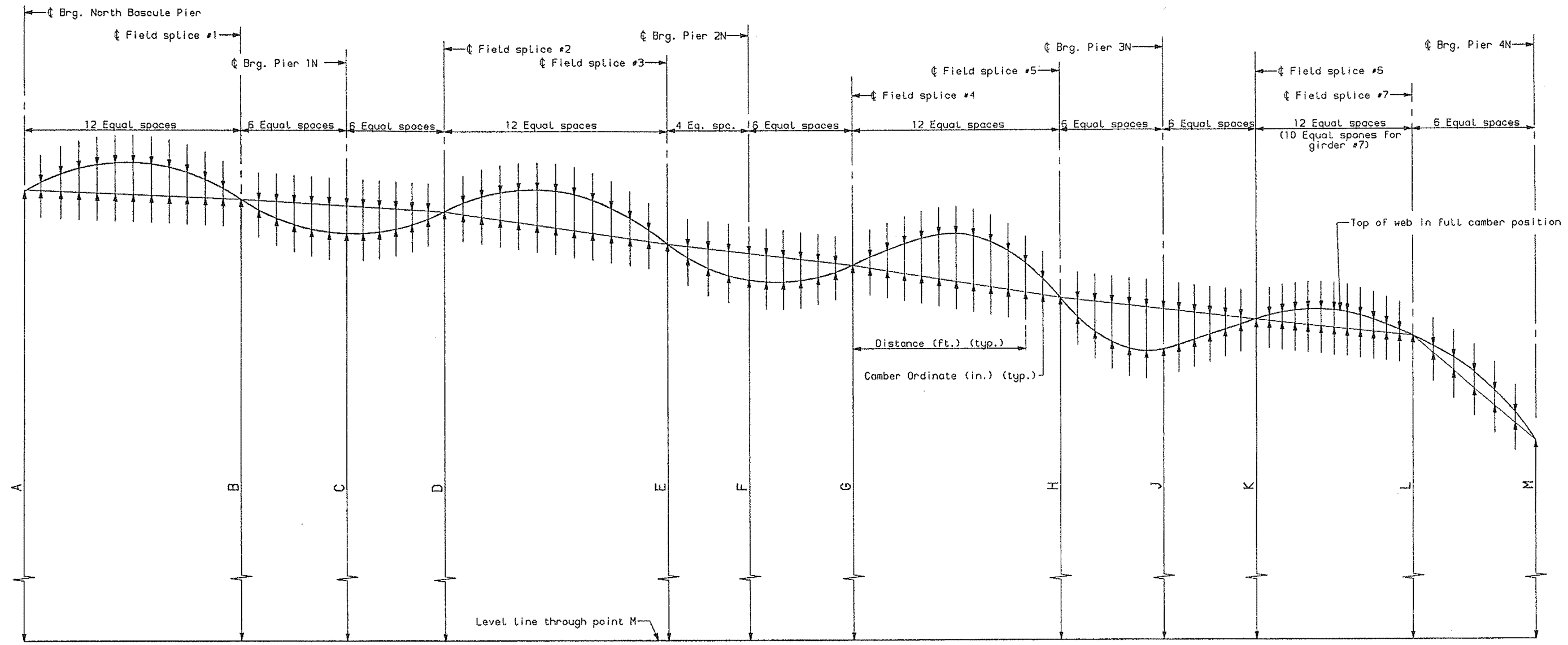
**MISCELLANEOUS
STEEL DETAILS**

DATE	BY	DESIGNED	CHECKED	REVISION	FIELD CHANGES
6-94	ELB	ELB	ELB	ELB	ELB
6-94	ELB	ELB	ELB	ELB	ELB

PLANS

4-12-94

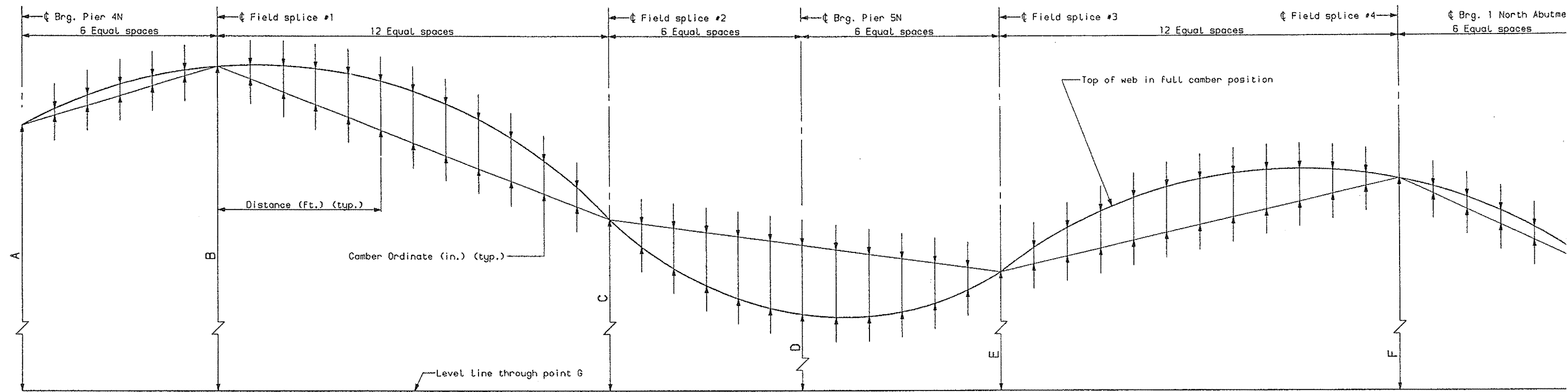
na.gate-3



GIRDERS 1 - 6 TYPICAL
(GIRDER 7 AS NOTED)

PLANS	DESIGN-DETAILED	JAB	JAB	6-94
	CHECKED	HCB		6-94
	REVISION			
	FIELD CHANGES			

3-17-94
 ca.n1n4-1



GIRDERS 1 - 6 TYPICAL

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND
OVER FORE
CUMBERLAND

CAMBER DESIGN
GIRDERS 1-6 SPAN

SHEET 57 OF 156 AUGUSTA, MAINE

PROJECT	DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES
PLANS	JAB	JAB	HCB	

3-17-94
sa.n5n6-1

GIRDER NUMBER		‡ Brg. Pier 4N A (ft.)								Splice #1	B (ft.)	Splice #1															Splice #2	C
①	Distance (ft.)	7.10	0.00	9.60	19.21	28.81	38.41	48.01	57.62	6.52	0.00	9.75	19.50	29.25	39.00	48.75	58.50	68.25	78.00	87.75	97.50	107.25	117.00					
	Camber Ordinate (in.)		0.00	0.38	0.59	0.70	0.66	0.43	0.00		0.00	1.08	1.93	2.54	2.90	3.02	2.93	2.61	2.13	1.53	1.00	0.47	0.00					
②	Distance (ft.)	7.32	0.00	9.71	19.42	29.12	38.83	48.54	58.24	6.78	0.00	9.85	19.71	29.56	39.41	49.27	59.12	68.97	78.82	88.67	98.53	108.38	118.23					
	Camber Ordinate (in.)		0.00	0.39	0.63	0.74	0.69	0.45	0.00		0.00	1.17	2.11	2.80	3.21	3.39	3.32	3.03	2.55	1.92	1.28	0.61	0.00					
③	Distance (ft.)	7.56	0.00	9.82	19.64	29.46	39.27	49.09	58.91	7.07	0.00	9.95	19.90	29.86	39.81	49.76	59.71	69.66	79.61	89.56	99.52	109.47	119.42					
	Camber Ordinate (in.)		0.00	0.44	0.69	0.81	0.74	0.47	0.00		0.00	1.27	2.28	3.02	3.50	3.71	3.69	3.43	2.97	2.31	1.55	0.76	0.00					
④	Distance (ft.)	7.75	0.00	9.92	19.84	29.76	39.68	49.60	59.52	7.30	0.00	10.06	20.11	30.17	40.22	50.28	60.33	70.39	80.45	90.50	100.56	110.61	120.67					
	Camber Ordinate (in.)		0.00	0.46	0.73	0.86	0.79	0.50	0.00		0.00	1.33	2.40	3.22	3.74	4.00	4.01	3.77	3.31	2.65	1.78	0.88	0.00					
⑤	Distance (ft.)	7.99	0.00	10.02	20.04	30.07	40.09	50.11	60.13	7.57	0.00	10.16	20.32	30.48	40.64	50.80	60.96	71.12	81.28	91.44	101.60	111.76	121.92					
	Camber Ordinate (in.)		0.00	0.47	0.75	0.89	0.81	0.52	0.00		0.00	1.42	2.57	3.44	4.02	4.31	4.36	4.14	3.68	3.01	2.03	1.01	0.00					
⑥	Distance (ft.)	8.20	0.00	10.29	20.58	30.87	41.16	51.45	61.74	7.77	0.00	10.21	20.42	30.62	40.83	51.04	61.25	71.46	81.66	91.87	102.08	112.29	122.50					
	Camber Ordinate (in.)		0.00	0.50	0.81	0.96	0.90	0.57	0.00		0.00	1.42	2.58	3.50	4.12	4.46	4.53	4.35	3.90	3.21	2.17	1.08	0.00					

GIRDER NUMBER		Splice #2								¢ Brg. Pier 5N	D (ft.)						Splice #3	E (ft.)
①	Distance (ft.)	0.00	9.61	19.23	28.84	38.45	48.06	57.67	2.14	2.14	2.14	67.56	77.45	87.34	97.23	107.11	117.00	1.47
	Camber Ordinate (in.)	0.00	-1.20	-2.23	-3.11	-3.83	-4.39	-4.79				-4.66	-4.30	-3.65	-2.69	-1.46	0.00	
②	Distance (ft.)	0.00	9.72	19.45	29.17	38.89	48.61	58.33	2.30	2.30	2.30	68.67	79.00	89.33	99.67	110.00	120.33	1.55
	Camber Ordinate (in.)	0.00	-1.25	-2.35	-3.28	-4.03	-4.60	-5.04				-4.95	-4.58	-3.90	-2.90	-1.58	0.00	
③	Distance (ft.)	0.00	9.83	19.67	29.50	39.33	49.17	59.00	2.46	2.46	2.46	69.22	79.44	89.67	99.89	110.11	120.33	1.65
	Camber Ordinate (in.)	0.00	-1.25	-2.36	-3.29	-4.04	-4.61	-5.04				-4.92	-4.55	-3.86	-2.87	-1.56	0.00	
④	Distance (ft.)	0.00	9.94	19.89	29.83	39.78	49.72	59.66	2.59	2.59	2.59	69.78	79.89	90.00	100.11	110.22	120.33	1.73
	Camber Ordinate (in.)	0.00	-1.25	-2.34	-3.28	-4.03	-4.59	-5.01				-4.88	-4.50	-3.82	-2.83	-1.53	0.00	
⑤	Distance (ft.)	0.00	10.05	20.11	30.16	40.22	50.27	60.33	2.76	2.76	2.76	70.33	80.33	90.33	100.33	110.33	120.33	1.84
	Camber Ordinate (in.)	0.00	-1.24	-2.33	-3.25	-3.98	-4.53	-4.92				-4.77	-4.39	-3.73	-2.74	-1.49	0.00	
⑥	Distance (ft.)	0.00	10.11	20.22	30.33	40.44	50.55	60.66	2.88	2.88	2.88	71.05	81.44	91.83	102.22	112.61	123.00	1.88
	Camber Ordinate (in.)	0.00	-1.27	-2.37	-3.32	-4.08	-4.64	-5.06				-4.94	-4.56	-3.88	-2.88	-1.58	0.00	

GIRDER NUMBER		Splice #3													Splice #4	F (ft.)	Splice #4							¢ Brg. 1 N. Abut. G (ft.)
①	Distance (ft.)	0.00	9.94	19.88	29.82	39.76	49.69	59.63	69.57	79.50	89.44	99.38	109.32	119.25	0.95	0.00	9.89	19.78	29.67	39.56	49.45	59.34	0.00	
	Camber Ordinate (in.)	0.00	0.08	0.27	0.53	0.81	1.05	1.21	1.30	1.31	1.16	0.95	0.57	0.00		0.00	0.56	0.92	1.07	0.84	0.47	0.00		
②	Distance (ft.)	0.00	9.95	17.90	27.84	37.79	47.73	57.67	67.62	77.56	87.51	97.45	107.39	117.34	0.96	0.00	9.89	19.79	29.69	39.58	49.48	59.37	0.00	
	Camber Ordinate (in.)	0.00	0.05	0.22	0.46	0.74	0.98	1.14	1.26	1.26	1.15	0.94	0.57	0.00		0.00	0.54	0.85	0.94	0.76	0.43	0.00		
③	Distance (ft.)	0.00	9.96	19.26	29.22	39.17	49.13	59.09	69.05	79.01	88.96	98.92	108.88	118.84	0.97	0.00	9.89	19.77	29.66	39.55	49.44	59.33	0.00	
	Camber Ordinate (in.)	0.00	0.00	0.17	0.40	0.66	0.89	1.08	1.20	1.23	1.13	0.92	0.56	0.00		0.00	0.48	0.75	0.81	0.64	0.37	0.00		
④	Distance (ft.)	0.00	9.97	20.60	30.57	40.53	50.50	60.46	70.43	80.39	90.36	100.32	110.29	120.25	0.98	0.00	9.90	19.79	29.69	39.59	49.48	59.38	0.00	
	Camber Ordinate (in.)	0.00	-0.03	0.11	0.31	0.55	0.79	0.96	1.09	1.13	1.05	0.86	0.53	0.00		0.00	0.44	0.67	0.71	0.58	0.35	0.00		
⑤	Distance (ft.)	0.00	9.98	21.96	31.94	41.92	51.90	61.88	71.86	81.84	91.82	101.79	111.77	121.75	0.97	0.00	9.89	19.78	29.67	39.56	49.45	59.33	0.00	
	Camber Ordinate (in.)	0.00	-0.07	0.03	0.22	0.44	0.66	0.84	0.96	1.00	0.95	0.79	0.49	0.00		0.00	0.38	0.55	0.55	0.46	0.26	0.00		
⑥	Distance (ft.)	0.00	10.01	20.03	30.05	40.06	50.07	60.09	70.10	80.11	90.13	100.14	110.15	120.17	0.96	0.00	9.89	19.79	29.68	39.58	49.48	59.37	0.00	
	Camber Ordinate (in.)	0.00	-0.10	-0.02	0.14	0.34	0.55	0.72	0.84	0.89	0.86	0.72	0.45	0.00		0.00	0.33	0.48	0.43	0.38	0.23	0.00		

NOTES:

Camber ordinates are computed for all dead load deflections and for the curvature of the finished profile grade.

NORTH APPROACH

STATE OF MAINE
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PORTLAND - S. PORT

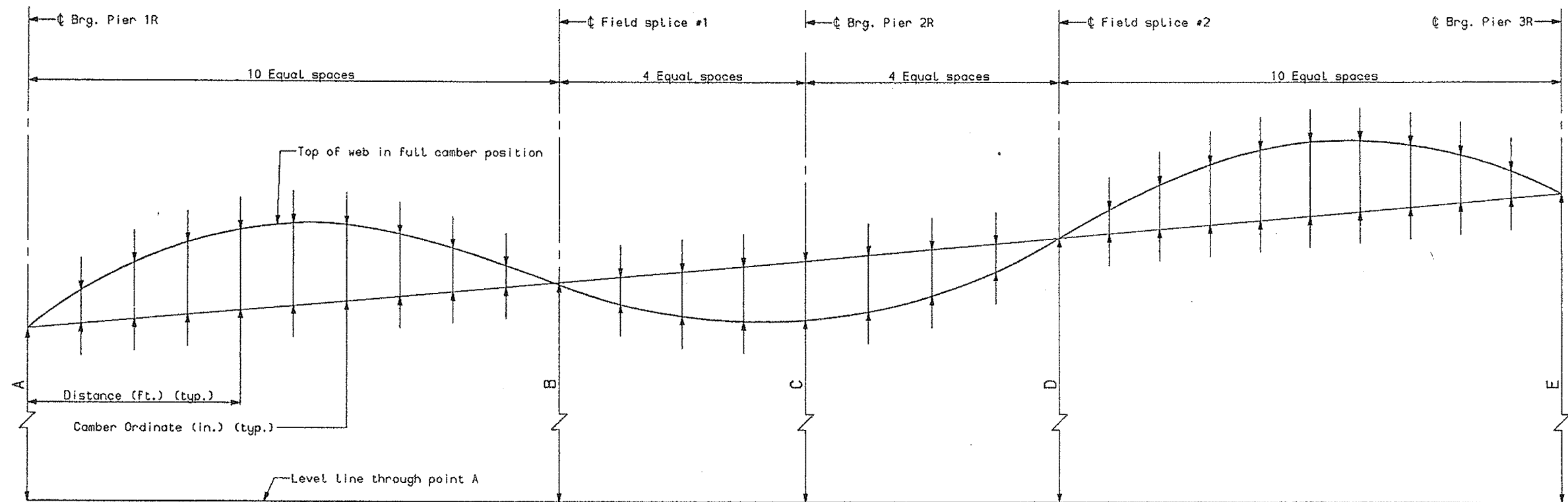
OVER FORE I

CUMBERLAND I

CAMBER DE

GIRDERS 1-6 SPAN

SHEET 58 OF 156 AUGUSTA,



GIRDERS 1 - 4 TYPICAL

NORTH APPROAC

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DEPARTMENT OF TRANSP

PORTLAND - S. PORTI

OVER FORE R

CUMBERLAND C

**CAMBER DE
GIRDERS 1-4 SPAN**

SHEET 59 OF 156 AUGUSTA,

DESIGN-DETAILED	JAB	JAB	6-94
CHECKED	HCB	HCB	6-94
REVISION			
FIELD CHANGES			

3-17-94
CO. R203-1

DESIGNED BY: HCB
CHECKED BY: HCB
REVISION
FIELD CHANGES

PLANS

3-17-94
3-17-94
3-17-94

GIRDER NUMBER		¢ Brg. Pier 1R A (ft.)												Splice #1	B (Ft.)	Splice #1					¢ Brg. Pier 2R	C (ft.)					Splice #2
①	Distance (ft.)	0.00	0.00	8.72	17.43	26.15	34.86	43.58	52.30	61.01	69.73	78.44	87.16	5.05	0.00	8.56	17.12	25.69	34.25	6.65	42.81	51.37	59.94	68.50			
	Camber Ordinate (in.)		0.00	1.07	1.96	2.64	3.07	3.21	3.08	2.67	1.97	1.08	0.00		-0.15	-0.32	-0.45	-0.55	-0.43		-0.26	-0.08	0.00				
②	Distance (ft.)	0.00	0.00	8.39	16.78	25.17	33.56	41.94	50.33	58.72	67.11	75.50	83.89	4.80	0.00	8.60	17.21	25.81	34.41	6.42	43.02	51.62	60.23	68.83			
	Camber Ordinate (in.)		0.00	0.95	1.76	2.37	2.74	2.86	2.74	2.36	1.75	0.95	0.00		-0.18	-0.37	-0.52	-0.63	-0.53		-0.37	-0.19	0.00				
③	Distance (ft.)	0.00	0.00	8.06	16.12	24.19	32.25	40.31	48.37	56.44	64.50	72.56	80.62	4.56	0.00	8.65	17.29	25.94	34.58	6.20	43.23	51.88	60.52	69.17			
	Camber Ordinate (in.)		0.00	0.85	1.56	2.08	2.41	2.53	2.41	2.07	1.53	0.83	0.00		-0.21	-0.42	-0.60	-0.73	-0.64		-0.51	-0.31	0.00				
④	Distance (ft.)	0.00	0.00	7.74	15.47	23.21	30.94	38.68	46.42	54.15	61.89	69.62	77.36	4.32	0.00	8.69	17.38	26.06	34.75	5.98	43.44	52.12	60.81	69.50			
	Camber Ordinate (in.)		0.00	0.73	1.34	1.81	2.10	2.19	2.10	1.80	1.33	0.72	0.00		-0.25	-0.49	-0.70	-0.84	-0.75		-0.63	-0.43	0.00				

GIRDER NUMBER		D (ft.)	Splice #2												¢ Brg. Pier 3R	E (ft.)
①	Distance (ft.)	8.34	0.00	8.34	16.67	25.01	33.35	41.68	50.02	58.36	66.70	75.20	83.71		11.64	
	Camber Ordinate (in.)		0.00	0.85	1.57	2.10	2.39	2.45	2.29	1.89	1.33	0.68	0.00			
②	Distance (ft.)	8.15	0.00	8.48	16.96	25.43	33.91	42.39	50.87	59.35	67.82	76.46	85.10		11.54	
	Camber Ordinate (in.)		0.00	0.99	1.82	2.45	2.83	2.94	2.80	2.39	1.75	0.89	0.00			
③	Distance (ft.)	7.96	0.00	8.61	17.23	25.85	34.46	43.08	51.70	60.31	68.93	77.71	86.49		11.45	
	Camber Ordinate (in.)		0.00	1.14	2.10	2.83	3.30	3.48	3.35	2.94	2.16	1.11	0.00			
④	Distance (ft.)	7.78	0.00	8.75	17.51	26.27	35.02	43.78	52.53	61.29	70.04	78.96	87.88		11.36	
	Camber Ordinate (in.)		0.00	1.28	2.38	3.23	3.78	4.01	3.92	3.49	2.57	1.31	0.00			

GIRDERS 1 - 4 TYPICAL

NOTES:

Camber ordinates are computed for all dead l deflections and for the curvature of the finis profile grade.

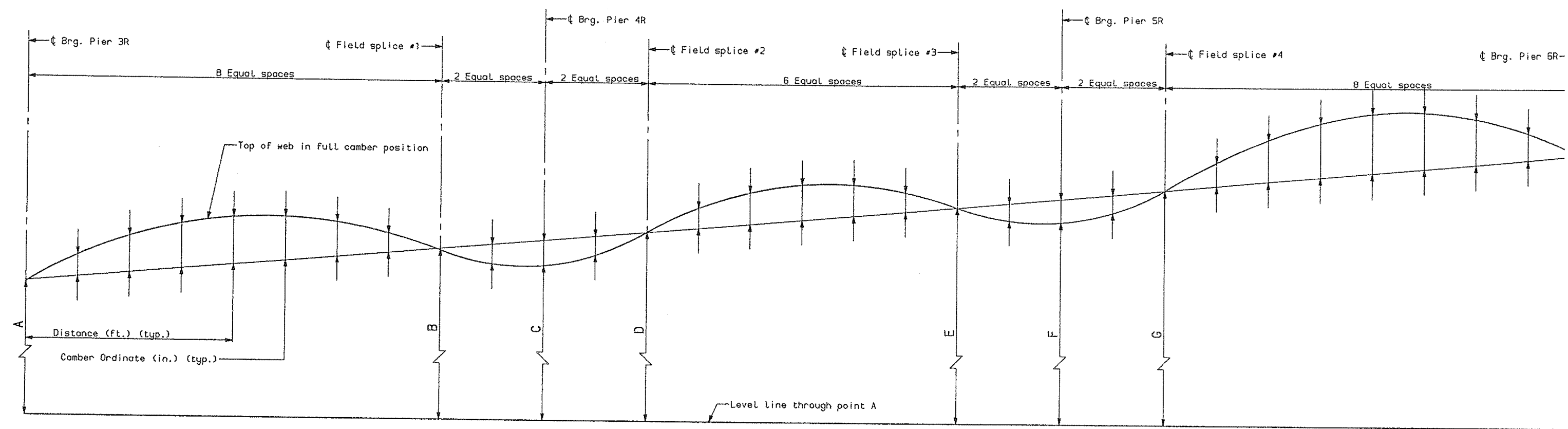
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DEPARTMENT OF TRANSP

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GIRDERS 1-4 SPAN

SHEET 60 OF 156 AUGUSTA, M



GIRDERS 1 - 4 TYPICAL

DESIGN-DETAILED	JAB	JAB	6-94
CHECKED	RCB	RCB	6-94
REVISION			
FIELD CHANGES			

PLANS

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NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORD RIVER
CUMBERLAND CREEK**

**CAMBER DE
GIRDERS 1-4 SPAN**

SHEET 61 OF 156 AUGUSTA, ME

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DESIGN

BY

DATE

DESIGN-DETAILED

CHECKED

REVISION

FIELD CHANGES

PLANS

3-17-94

ca.r4r6-2

GIRDER NUMBER		¢ Brg. Pier 3R A (ft.)									Splice #1	B (ft.)	Splice #1		¢ Brg. Pier 4R	C (ft.)		Splice #2
①	Distance (ft.)	0.00	0.00	8.63	17.26	25.89	34.51	43.14	51.77	60.40	69.03	2.78	0.00	8.58	17.17	3.44	25.75	34.33
	Camber Ordinate (in.)		0.00	0.24	0.47	0.63	0.69	0.64	0.50	0.28	0.00		0.00	-0.17	-0.25		-0.16	0.00
②	Distance (ft.)	0.00	0.00	9.05	18.10	27.15	36.20	45.26	54.31	63.36	72.41	2.81	0.00	8.96	17.92	3.44	26.88	35.83
	Camber Ordinate (in.)		0.00	0.44	0.82	1.06	1.15	1.07	0.81	0.45	0.00		0.00	-0.18	-0.29		-0.20	0.00
③	Distance (ft.)	0.00	0.00	9.46	18.93	28.39	37.85	47.32	56.78	66.24	75.70	2.84	0.00	9.38	18.75	3.45	28.13	37.50
	Camber Ordinate (in.)		0.00	0.67	1.17	1.49	1.60	1.48	1.13	0.62	0.00		0.00	-0.22	-0.35		-0.24	0.00
④	Distance (ft.)	0.00	0.00	9.88	19.75	29.63	39.50	49.38	59.25	69.13	79.00	2.87	0.00	9.79	19.58	3.46	29.37	39.17
	Camber Ordinate (in.)		0.00	0.91	1.56	1.99	2.12	1.95	1.50	0.81	0.00		0.00	-0.25	-0.42		-0.29	0.00

GIRDER NUMBER		D (ft.)	Splice #2						Splice #3	E (ft.)	Splice #3		‡ Brg. Pier 5R	F (ft.)		Splice #4	G (ft.)	Splice #4											‡ Brg. Pier 6R	H (ft.)
①	Distance (ft.)	4.13	0.00	8.82	17.63	26.45	35.27	44.09	52.90	6.24	0.00	8.59	17.17	6.92	25.75	34.34	7.64	0.00	9.07	18.15	27.23	36.31	45.38	54.46	63.54	72.62	10.54			
	Camber Ordinate (in.)		0.00	0.10	0.19	0.22	0.20	0.12	0.00		0.00	-0.16	-0.26		-0.17	0.00		0.00	0.30	0.60	0.81	0.92	0.90	0.77	0.50	0.00				
②	Distance (ft.)	4.12	0.00	9.26	18.51	27.77	37.02	46.28	55.53	6.24	0.00	8.96	17.92	6.92	26.88	35.84	7.65	0.00	9.09	18.19	27.29	36.38	45.48	54.58	63.67	72.77	10.33			
	Camber Ordinate (in.)		0.00	0.08	0.12	0.16	0.13	0.07	0.00		0.00	-0.19	-0.29		-0.18	0.00		0.00	0.47	0.83	1.07	1.15	1.08	0.86	0.53	0.00				
③	Distance (ft.)	4.12	0.00	9.67	19.33	29.00	38.67	48.33	58.00	6.23	0.00	9.37	18.75	6.93	28.12	37.50	7.68	0.00	9.11	18.22	27.33	36.43	45.54	54.65	63.76	72.87	10.08			
	Camber Ordinate (in.)		0.00	0.02	0.07	0.09	0.06	0.03	0.00		0.00	-0.21	-0.33		-0.21	0.00		0.00	0.72	1.12	1.38	1.44	1.33	1.02	0.59	0.00				
④	Distance (ft.)	4.11	0.00	10.07	20.15	30.22	40.30	50.38	60.45	6.23	0.00	9.80	19.59	6.94	29.38	39.17	7.71	0.00	9.12	18.25	27.37	36.49	45.62	54.74	63.86	72.99	9.83			
	Camber Ordinate (in.)		0.00	-0.01	0.01	0.03	0.02	0.00	0.00		0.00	-0.25	-0.37		-0.22	0.00		0.00	1.00	1.49	1.77	1.84	1.67	1.29	0.73	0.00				

GIRDERS 1 - 4 TYPICAL

NOTES:

Camber ordinates are computed for all dead deflections and for the curvature of the fin profile grade.

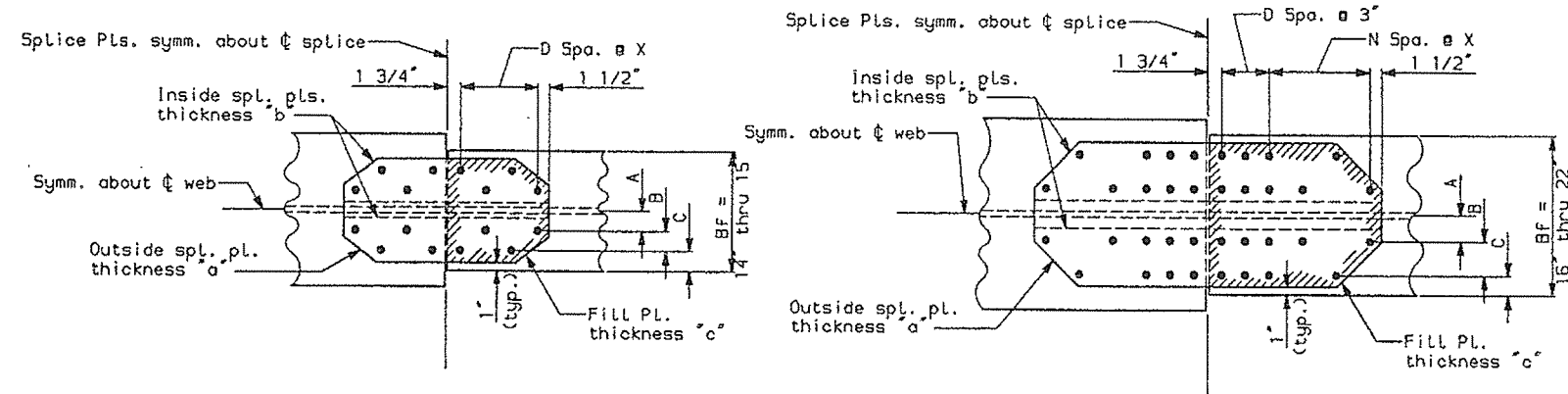
NORTH APPROA

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GIRDERS 1-4 SPAI

SHEET 62 OF 156 AUGUSTA,

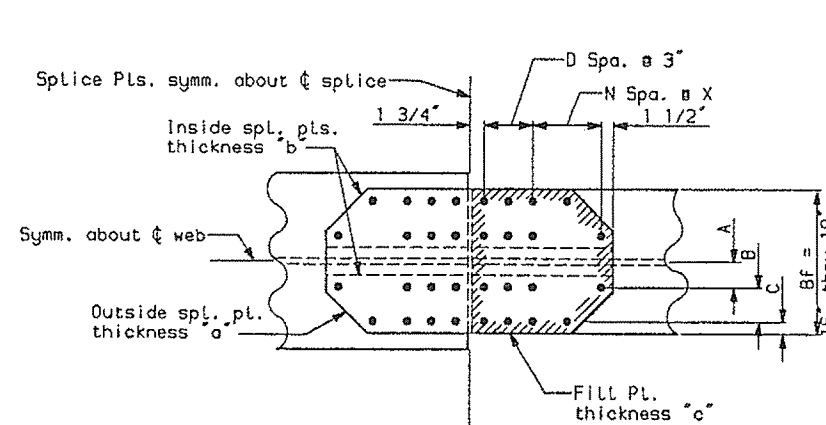


14" & 15" TOP FLANGES

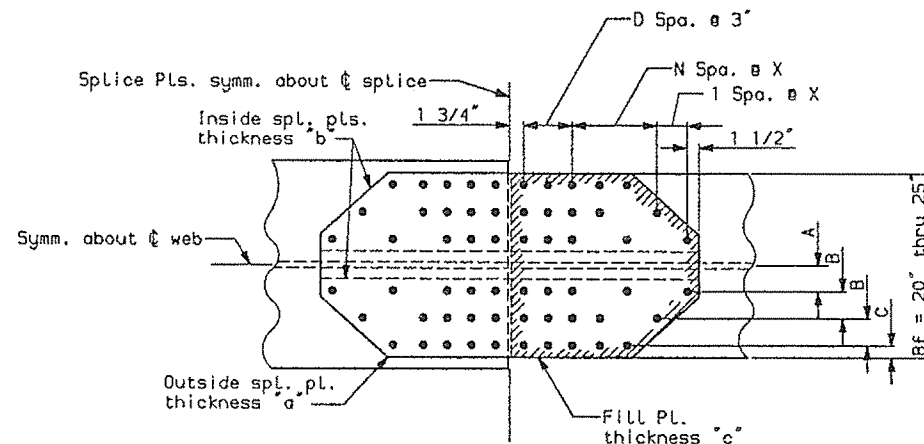
16" THRU 22" TOP FLANGES

TOP FLANGE SPLICE TABLE

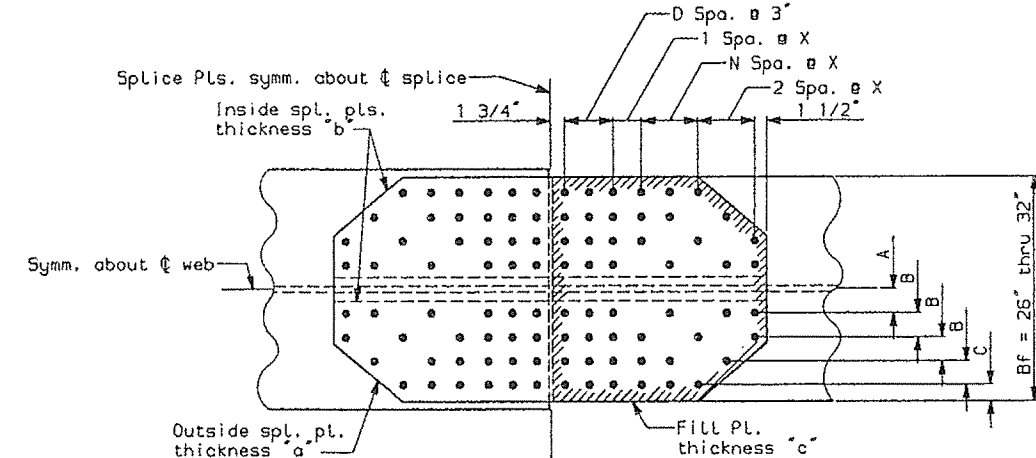
SPANS	GIRDER NO.	SPLICE NO.	PLATES										SPANS	GIRDER NO.	SPLICE NO.	PLATES											
			a	b	c	A	B	C	D	N	X	Bf				a	b	c	A	B	C	D	N	X	Bf		
Spans N1 thru N4	1	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0	Spans N5 and N6	1	1	0.8125	1.0000	0.000	3.250	3.250	2.500	5	2	3.75	18.0		
		2	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			2	0.6875	0.7500	0.625	3.250	3.250	2.500	4	2	3.75	18.0		
		3	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			3	0.5625	0.7500	0.750	3.250	3.250	2.500	3	1	3.75	18.0		
		4	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			4	0.6875	0.7500	0.250	3.250	3.250	2.500	4	2	3.75	18.0		
		5	0.5000	0.6250	0.375	3.000	3.000	2.500	2	1	3.50	17.0			1	0.8125	1.0000	0.000	3.250	3.250	2.500	5	2	3.75	18.0		
		6	0.5625	0.7500	0.250	3.000	3.250	2.500	3	1	3.75	18.0			2	0.8125	1.0000	0.375	3.250	3.250	2.500	4	2	3.75	18.0		
	2	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0		2	3	0.5625	0.7500	0.750	3.250	3.250	2.500	3	1	3.75	18.0		
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			4	0.5625	0.7500	0.250	3.250	3.250	2.500	4	1	3.75	18.0		
		3	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			1	0.8125	1.0000	0.000	3.250	3.250	2.500	5	2	3.75	18.0		
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			2	0.8125	1.0000	0.375	3.250	3.250	2.500	4	2	3.75	18.0		
		5	0.5000	0.6250	0.375	3.000	3.000	2.500	2	1	3.50	17.0			3	0.5625	0.7500	0.750	3.250	3.250	2.500	3	1	3.75	18.0		
		6	0.5000	0.6250	0.375	3.000	3.000	2.500	2	1	3.50	17.0			4	0.5625	0.7500	0.000	3.250	3.250	2.500	4	1	3.75	18.0		
	3	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0		3	1	0.8125	1.0000	0.000	3.250	3.250	2.500	5	2	3.75	18.0		
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			2	0.8125	1.0000	0.375	3.250	3.250	2.500	4	2	3.75	18.0		
		3	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			3	0.5625	0.7500	0.750	3.250	3.250	2.500	3	1	3.75	18.0		
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			4	0.5625	0.7500	0.000	3.250	3.250	2.500	4	1	3.75	18.0		
		5	0.5000	0.6250	0.250	3.000	3.000	2.500	2	1	3.50	17.0			1	0.8125	1.0000	0.125	3.250	3.750	2.500	5	2	4.00	19.0		
		6	0.5000	0.6250	0.375	3.000	3.000	2.500	2	1	3.50	17.0			2	0.8750	1.1250	0.500	3.250	3.750	2.500	5	2	4.00	19.0		
	4	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0		4	3	0.5625	0.7500	1.000	3.250	3.750	2.500	3	1	4.00	19.0		
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			4	0.5625	0.7500	0.000	3.250	3.750	2.500	4	1	4.00	19.0		
		3	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			1	0.8750	1.0000	0.000	3.250	4.750	2.500	7	1	4.50	21.0		
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			2	0.8750	1.0000	0.500	3.250	4.750	2.500	6	1	4.50	21.0		
		5	0.5000	0.6250	0.250	3.000	3.000	2.500	2	1	3.50	17.0			3	0.6250	0.8125	0.875	3.250	4.750	2.500	5	1	4.50	21.0		
		6	0.5000	0.6250	0.375	3.000	3.000	2.500	2	1	3.50	17.0			4	0.6250	0.8125	0.000	3.250	4.750	2.500	5	1	4.50	21.0		
	5	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0		5	1	1.0000	1.1250	0.000	3.250	5.250	2.500	8	2	4.75	22.0		
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			2	1.0000	1.1250	0.500	3.250	5.250	2.500	7	2	4.75	22.0		
		3	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			3	0.6250	0.7500	1.125	3.250	5.250	2.500	5	1	4.75	22.0		
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			4	0.6250	0.7500	0.000	3.250	5.250	2.500	5	1	4.75	22.0		
		5	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			1	0.5000	0.5625	0.750	2.500	2.000	2.500	5	0	3.00	14.0		
		6	0.5000	0.6250	0.250	3.000	3.000	2.500	2	1	3.50	17.0			2	0.5000	0.5625	0.750	2.500	2.000	2.500	5	0	3.00	14.0		
	6	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0	6	Spans R2 and R3	1	1	0.5000	0.5625	0.500	2.500	2.000	2.500	5	0	3.00	14.0	
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0				2	0.5000	0.5625	0.500	2.500	2.000	2.500	5	0	3.00	14.0	
		3	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0				2	1	0.5000	0.5625	0.500	2.500	2.000	2.500	5	0	3.00	14.0
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0					2	0.5000	0.5625	0.500	2.500	2.000	2.500	5	0	3.00	14.0
		5	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0				3	1	0.5000	0.6250	0.875	2.500	3.00	2.500	3	1	3.50	16.0
		6	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0					2	0.5000	0.6250	0.875	2.500	3.00	2.500	2	1	3.50	16.0
	7	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0	Spans R4 thru R6	1	1	0.6250	0.6875	0.125	3.000	3.000	2.500	2	1	3.50	17.0		
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			2	0.5000	0.6250	0.250	3.000	3.000	2.500	1	1	3.50	17.0		
		3	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			3	0.5000	0.6250	0.250	3.000	3.000	2.500	1	1	3.50	17.0		
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			4	0.6250	0.6875	0.125	3.000	3.000	2.500	2	1	3.50	17.0		
		5	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			1	0.6250	0.6875	0.125	3.000	3.000	2.500	2	1	3.50	17.0		
		6	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			2	0.6250	0.6875	0.125	3.000	3.000	2.500	2	1	3.50	17.0		
Spans R5 and R6	1	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0		2	3	0.6250	0.6875	0.125	3.000	3.000	2.500	2	1	3.50	17.0		
		2	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			4	0.6250	0.6875	0.125	3.000	3.000	2.500	2	1	3.50	17.0		
		3	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			1	0.5625	0.7500	0.375	3.250	3.250	2.500	2	1	3.75	18.0		
		4	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0			2	0.5625	0.7500	0.375	3.250	3.250	2.500	2	1	3.75	18.0		
		5	0.5000	0.6250	0.125	3.000	3.000	2.500	2	1	3.50	17.0			3	0.5625	0.7500	0.375	3.250	3.250	2.500	2	1	3.75	18.0		
		6	0.5000	0.6250	0.250	3.000	3.000	2.500	2	1	3.50	17.0			4	0.5625	0.7500	0.625	3.250	4.250	2.500	2	1	4.25	20.0		
	2	1	0.5000	0.6250	0.000	3.000	3.000	2.500	2	1	3.50	17.0		3	2	0.6250											



16" THRU 19" BOTTOM FLANGES



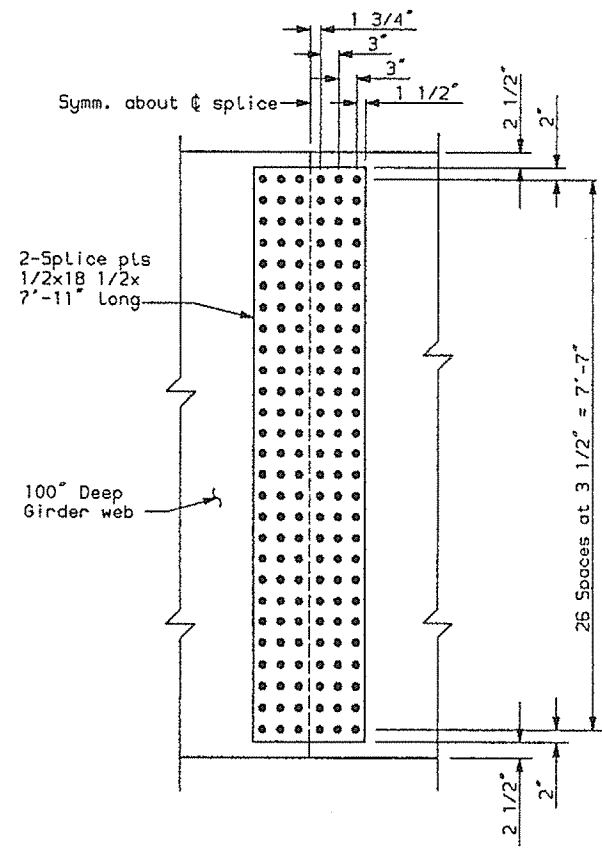
20" THRU 25" BOTTOM FLANGES



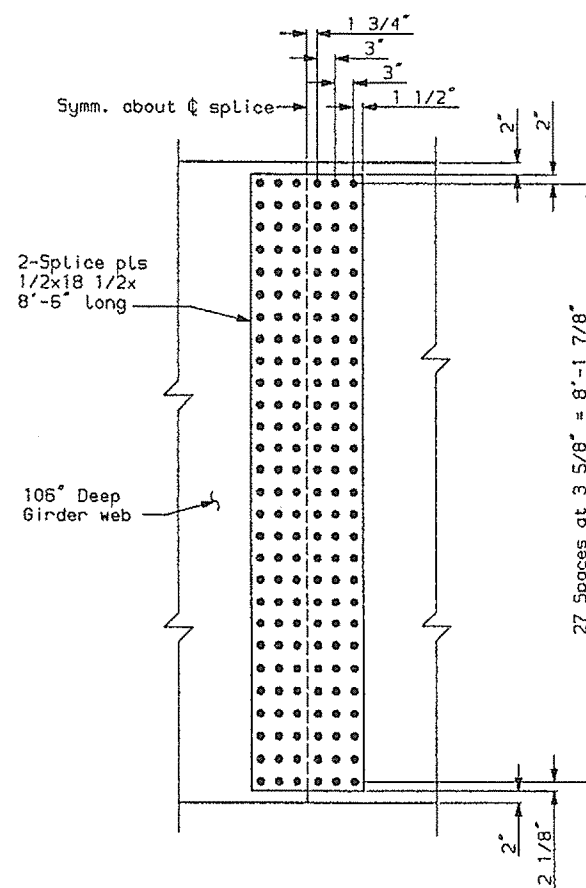
26" THRU 32" BOTTOM FLANGES

BOTTOM FLANGE SPLICE TABLE

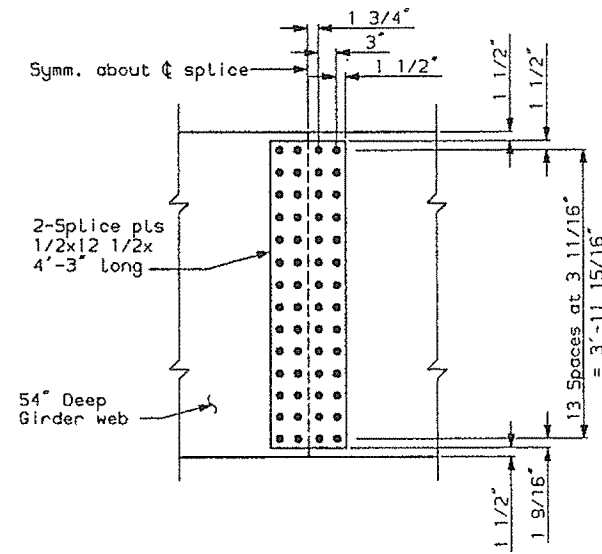
SPANS	GIRDER NO.	SPLICE NO.	PLATES										
			a	b	c	A	B	C	D	N	X	Bf	
Spans N1 thru N4	1	1	0.7500	1.0000	0.250	3.250	4.250	1.500	5	2	3.00	18.0	
		2	0.6250	0.8125	0.250	3.250	4.750	1.500	4	1	3.00	19.0	
		3	0.7500	1.0000	0.000	3.250	4.750	1.500	5	2	3.00	19.0	
		4	0.6875	0.8750	0.000	3.250	4.750	1.500	5	1	3.00	19.0	
		5	0.6875	0.8750	0.375	3.250	4.750	1.500	5	1	3.00	19.0	
		6	0.6875	0.8125	0.375	2.500	3.000	1.500	2	2	3.50	20.0	
		7	0.8750	1.1250	0.250	3.250	3.125	1.500	5	2	3.00	22.0	
	2	1	0.5000	0.6250	0.125	3.250	4.250	1.500	3	1	3.00	18.0	
		2	0.5000	0.6250	0.250	3.250	4.250	1.500	3	1	3.00	18.0	
		3	0.6250	0.8125	0.125	3.250	4.250	1.500	4	1	3.00	18.0	
		4	0.6875	0.8125	0.125	3.250	3.750	1.500	3	2	3.00	17.0	
		5	0.6250	0.8125	0.500	3.250	4.250	1.500	4	1	3.00	18.0	
		6	0.6250	0.8125	0.500	3.250	4.750	1.500	4	1	3.00	19.0	
		7	0.8750	1.1250	0.250	3.250	3.125	1.500	5	2	3.00	22.0	
	3	1	0.5000	0.6875	0.125	3.250	3.750	1.500	3	1	3.00	17.0	
		2	0.5000	0.6875	0.125	3.250	3.750	1.500	3	1	3.00	17.0	
		3	0.6875	0.8750	0.125	3.250	3.750	1.500	4	2	3.00	17.0	
		4	0.6875	0.8125	0.125	3.250	3.750	1.500	3	2	3.00	17.0	
		5	0.6250	0.8125	0.500	3.250	4.250	1.500	4	1	3.00	18.0	
		6	0.6250	0.8125	0.500	3.250	4.250	1.500	4	1	3.00	18.0	
		7	0.7500	0.8750	0.250	2.500	3.000	1.500	4	2	3.50	20.0	
	4	1	0.5000	0.6875	0.000	3.250	3.750	1.500	3	1	3.00	17.0	
		2	0.5000	0.6875	0.000	3.250	3.750	1.500	3	1	3.00	17.0	
		3	0.6875	0.8750	0.000	3.250	3.750	1.500	4	2	3.00	17.0	
		4	0.6875	0.8125	0.125	3.250	3.750	1.500	3	2	3.00	17.0	
		5	0.6250	0.8125	0.250	3.250	4.250	1.500	4	1	3.00	18.0	
		6	0.6250	0.8125	0.250	3.250	4.250	1.500	4	1	3.00	18.0	
		7	0.7500	1.0000	0.250	3.250	4.250	1.500	6	2	3.00	18.0	
	5	1	0.5000	0.6875	0.000	3.250	3.750	1.500	3	1	3.00	17.0	
		2	0.5000	0.6875	0.000	3.250	3.750	1.500	3	1	3.00	17.0	
		3	0.6875	0.8750	0.125	3.250	3.750	1.500	4	2	3.00	17.0	
		4	0.6875	0.8125	0.125	3.250	3.750	1.500	3	2	3.00	17.0	
		5	0.6250	0.8125	0.250	3.250	4.250	1.500	4	1	3.00	18.0	
		6	0.6250	0.8125	0.250	3.250	4.750	1.500	4	1	3.00	19.0	
		7	1.0000	1.1250	0.250	3.125	3.625	2.000	7	0	3.88	32.0	
	6	1	0.5000	0.6875	0.125	3.250	3.750	1.500	3	1	3.00	17.0	
		2	0.6250	0.7500	0.125	3.250	3.750	1.500	3	2	3.00	17.0	
		3	0.6875	0.8750	0.125	3.250	4.250	1.500	4	2	3.00	18.0	
		4	0.7500	0.8125	0.250	3.250	4.250	1.500	4	2	3.00	18.0	
		5	0.6250	0.7500	0.250	2.500	3.000	1.500	2	2	3.50	20.0	
		6	0.6250	0.7500	0.250	3.000	3.000	1.500	2	2	3.50	21.0	
		7	1.0000	1.2500	0.250	3.250	3.250	2.000	6	0	3.75	30.0	
	7	1	0.5000	0.6875	0.375	3.250	3.750	1.500	3	1	3.00	17.0	
		2	0.5625	0.7500	0.250	3.250	3.750	1.500	3	1	3.00	17.0	
		3	0.6875	0.8750	0.375	3.250	4.750	1.500	5	1	3.00	19.0	
		4	0.6875	0.8750	0.125	3.250	4.750	1.500	5	1	3.00	19.0	
		5	0.6875	0.8750	0.375	3.250	4.750	1.500	5	1	3.00	19.0	
		6	0.6875	0.8750	0.125	3.250	4.750	1.500	5	1	3.00	19.0	
		7	1.0000	1.1250	0.000	3.000	3.000	2.000	5	0	3.50	28.0	
Spans N5 and N6	1	1	0.7500	0.8750	0.250	3.000	3.000	1.500	4	2	3.50	21.0	
		2	0.8750	1.1250	0.500	3.250	3.125	1.500	4	2	3.00	22.0	
		3	0.7500	0.8750	0.750	3.000	3.000	2.000	3	0	3.50	28.0	
		4	1.0000	1.2500	0.000	3.250	3.625	1.500	7	2	3.00	24.0	
	2	1	0.7500	0.8750	0.250	3.000	3.000	1.500	4	2	3.50	21.0	
		2	0.8750	1.1250	0.500	3.250	3.625	1.500	4	2	3.00	24.0	
		3	0.6875	0.8125	0.875	3.250	3.625	1.500	3	2	3.00	24.0	
	3	1	0.8750	1.1250	0.000	3.000	3.000	1.500	5	2	3.50	21.0	
		2	0.8750	1.1250	0.500	3.250	3.625	1.500	4	2	3.00	24.0	
		3	0.6875	0.8125	0.875	3.250	3.625	1.500	3	2	3.00	24.0	
		4	0.8750	1.1250	0.000	3.250	3.125	1.500	5	2	3.00	22.0	
	4	1	0.8750	1.1250	0.250	3.250	3.125	1.500	5	2	3.00	22.0	
		2	1.0000	1.2500	0.250	3.250	3.625	1.500	5	2	3.00	24.0	
		3	0.7500	1.0000	0.750	3.250	3.625	1.500	3	2	3.00	24.0	
	5	1	1.0000	1.2500	0.000	3.250	3.625	1.500	7	2	3.00	24.0	
		2	1.0000	1.1250	0.250	2.500	3.000	1.500	4	0	3.50	26.0	
		3	0.8750	1.1250	0.500	3.250	3.625	1.500	4	2	3.00	24.0	
		4	0.8750	1.1250	0.250	3.250	3.625	1.500	6	2	3.00	24.0	
	6	1	1.1250	1.3750	0.000	3.000	3.000	1.500	6	0	3.50	27.0	
		2	1.0000	1.1250	0.500	3.000	3.000	2.000	4	0	3.50	30.0	
		3	0.7500	0.8750	1.000	3.000	3.000	2.000	3	0	3.50	28.0	
		4	1.0000	1.2500	0.000	3.250	3.625	1.500	7	2	3.00	24.0	
Spans R2 and R3	1	1	0.6875	0.8750	0.625	3.250	3.125	1.500	2	2	3.00	22.0	
		2	0.6875	0.8750	0.625	3.250	3.125	1.500	2	2	3.00	22.0	
	2	1	0.5625	0.7500	0.625	3.250	3.250	1.500	3	2	3.00	16.0	
		2	0.5625	0.7500	0.625	3.250	3.250	1.500	3	2	3.00	16.0	
		3	1	0.5625	0.7500	0.625	3.250	3.250	1.500	3	2	3.00	16.0
		4	1	0.7500	1.0000	0.500	3.250	3.125	1.500	2	2	3.00	22.0
		2	0.7500	1.0000	0.500	3.250	3.125	1.500	2	2	3.00	22.0	
	3	1	0.6875	0.8750	0.125	3.250	4.250	1.500	3	1	3.00	18.0	
		2	0.5625	0.7500	0.250	3.250	4.250	1.500	2	1	3.00	18.0	
		3	0.5625	0.7500	0.250	3.250	4.250	1.500	2	1	3.00	18.0	
	4	1	0.5625	0.7500	0.250	3.250	4.250	1.500	2	1	3.00	18.0	
		2	0.5000	0.6250	0.375	3.250	4.250	1.500	2	1	3.00	18.0	
		3	0.5000	0.6250	0.375	3.250	4.250	1.500	2	1	3.00	18.0	
		4	0.5000	0.6250	0.375	3.250	4.250	1.500	2	1	3.00	18.0	
Spans R4 thru R6	1	1	0.6250	0.7500	0.250	3.000	3.000	1.500	1	1	3.50	21.0	
		2	0.5625	0.6875	0.375	3.000	3.000	1.500	1	1	3.50	21.0	
		3	0.5625	0.6875	0.375	3.000	3.000	1.500	1	1	3.50	21.0	
		4	0.6250	0.7500	0.250	3.000	3.000	1.500	1	1	3.50	21.0	
	2	1	0.8750	1.1250	0.250	3.250	3.625	1.500	2	1	3.00	24.0	
		2	0.6875	0.8125	0.625	3.250	3.625	1.500	2	1	3.00	24.0	
		3	0.6875	0.8125	0.625	3.250	3.625	1.500	2	1	3.00	24.0	
		4	0.8750	1.1250	0.250	3.250	3.625	1.500	2	1	3.00	24.0	
	3	1	0.6250	0.7500	0.250	3.000	3.000	1.500	1	1	3.50	21.0	
		2	0.5625	0.6875	0.375	3.000	3.000	1.500	1	1	3.50	21.0	
		3	0.5625	0.6875	0.375	3.000	3.000	1.500	1	1	3.50	21.0	
	4	1	0.8750	1.1250	0.250	3.250	3.625	1.500	2	1	3.00	24.0	
		2	0.6875	0.8125	0.625	3.250	3.625	1.500	2	1	3.00		



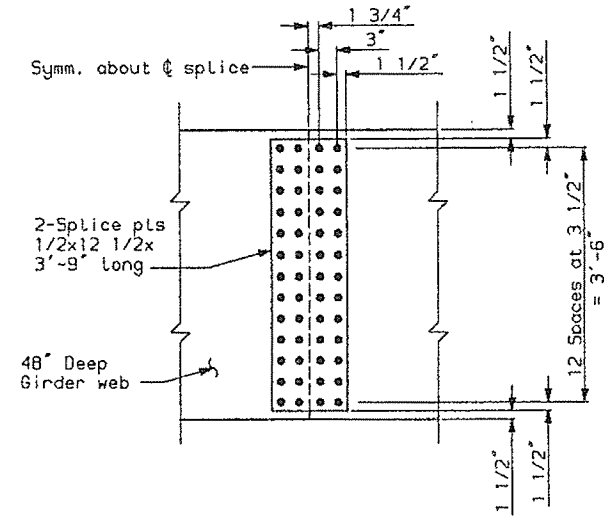
SPAN N1-N4



SPAN N5-N6



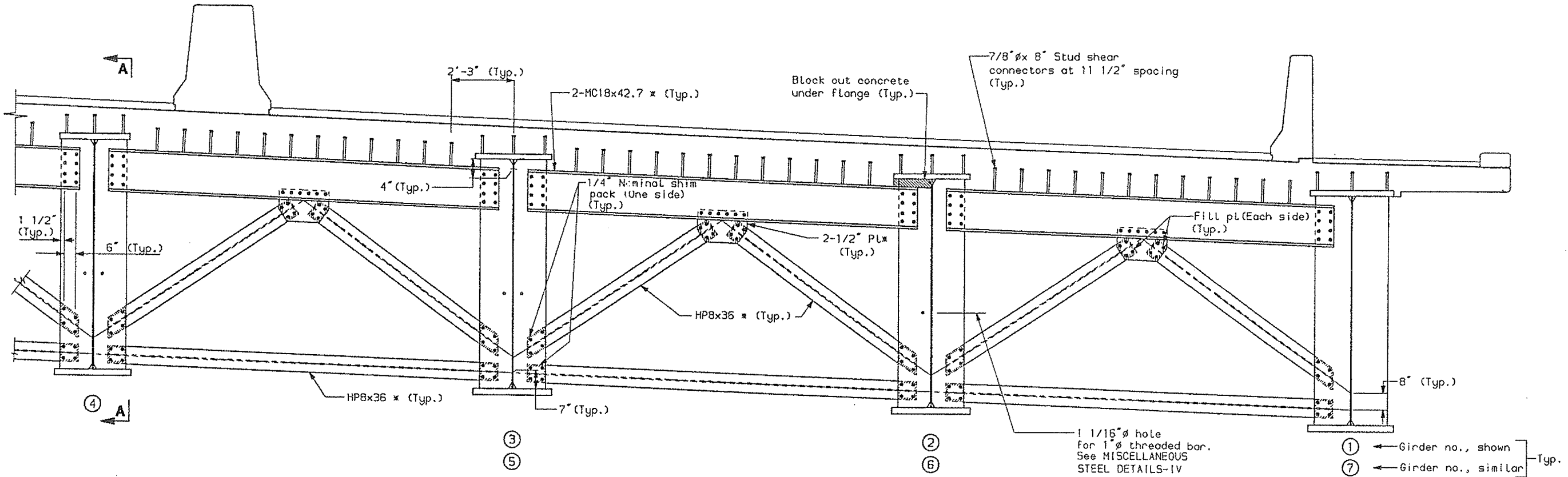
SPAN R2-R3



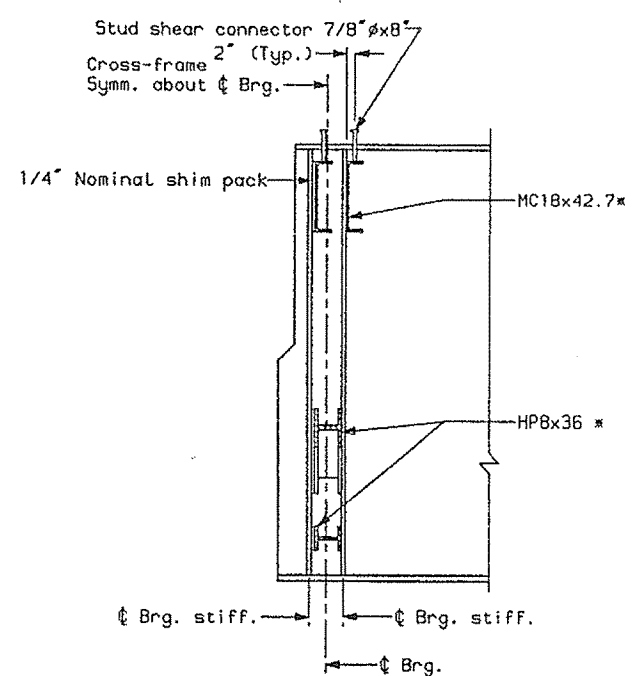
SPAN R4-R6

PLANS	DESIGN	BY	DATE
	CHECKED	RCB	6-94
	REVISION	SLH	6-94
	FIELD CHANGES	PDB	

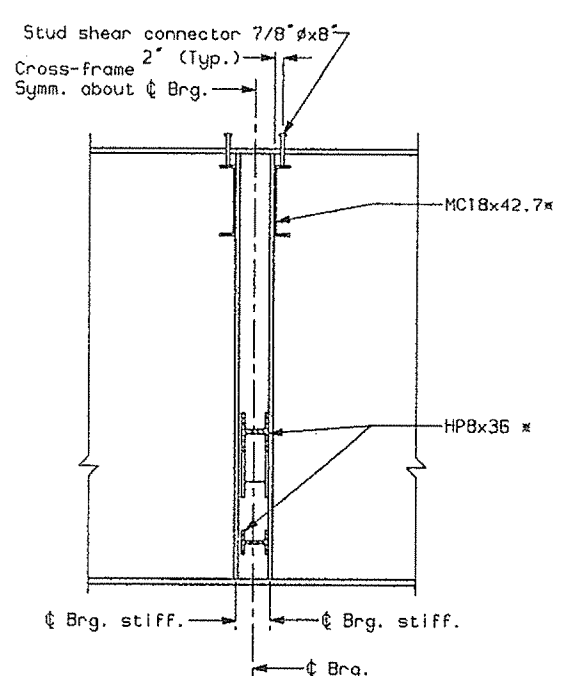
na.web.spl



CROSS-FRAME AT PIERS (TYPE A)
(Pier 3N shown; others similar)
(Spans N1-N6)



SECTION A-A
(Exterior pier)



SECTION A-A
(Interior pier)

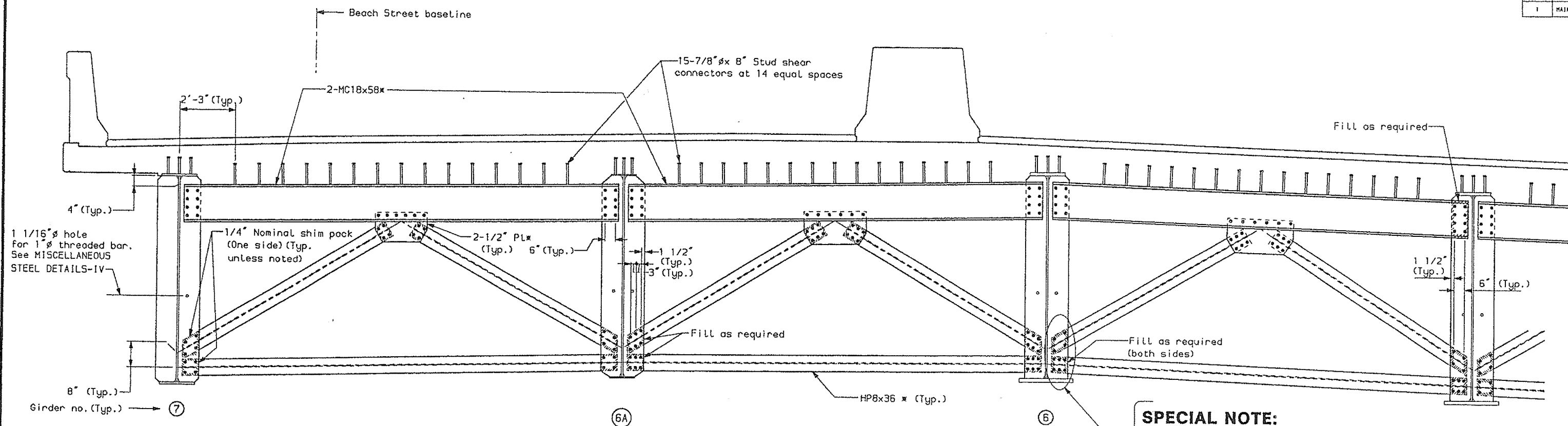
NOTE:
* AASHTO M270 (ASTM A709),

NORTH APPROACH STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT OVER FORE RIVER CUMBERLAND COUNTY
NORTH APPROACH CROSS-FRAME AT PIERS
SHEET 66 OF 156 AUGUSTA, 1994

DATE	6-94
BY	ELS
DESIGN-DETAILED	POB
CHECKED	
REVISION	
FIELD CHANGES	

PLANS

no. cFrame.1

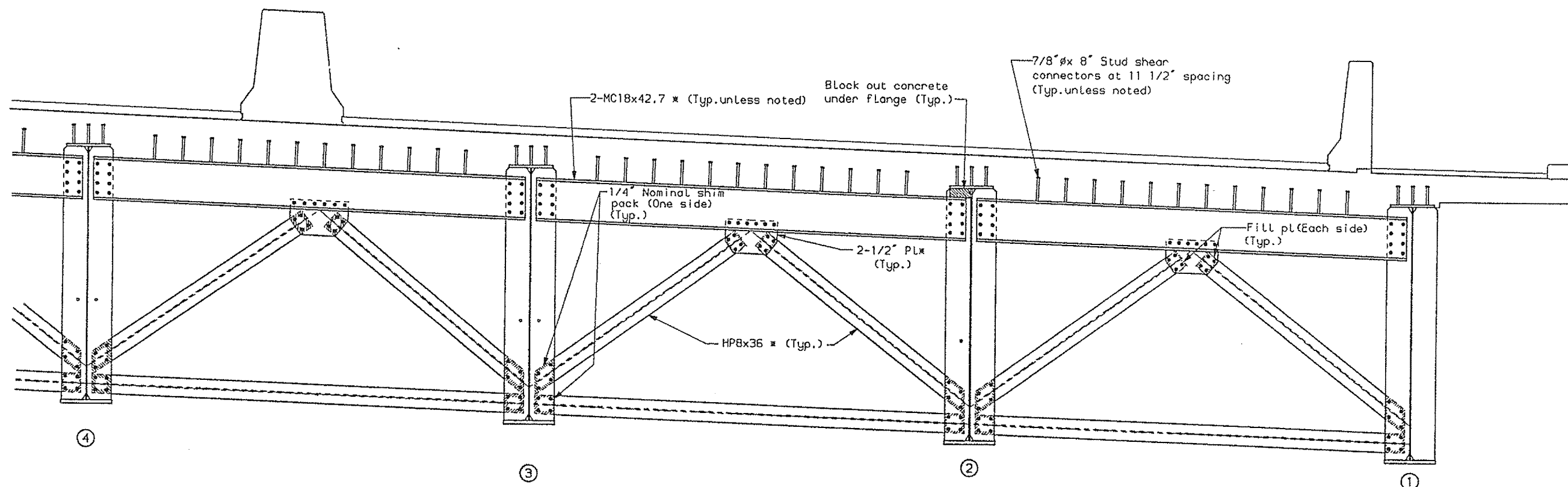


CROSS-FRAME AT PIER 6R (TYPE B)

(Span N4)

SPECIAL NOTE:

Bottom and diagonal cross-frame struts between girders 5 and 6, Span N4, at Pier 4N(back) to remain unbolted until concrete deck placement in Spans N1-N4 is complete.



CROSS-FRAME AT PIER 4N (TYPE B)

(Spon N4)

NOTES:

* AASHTO M270 (ASTM A709),

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSP

PORTLAND - S. PORTL

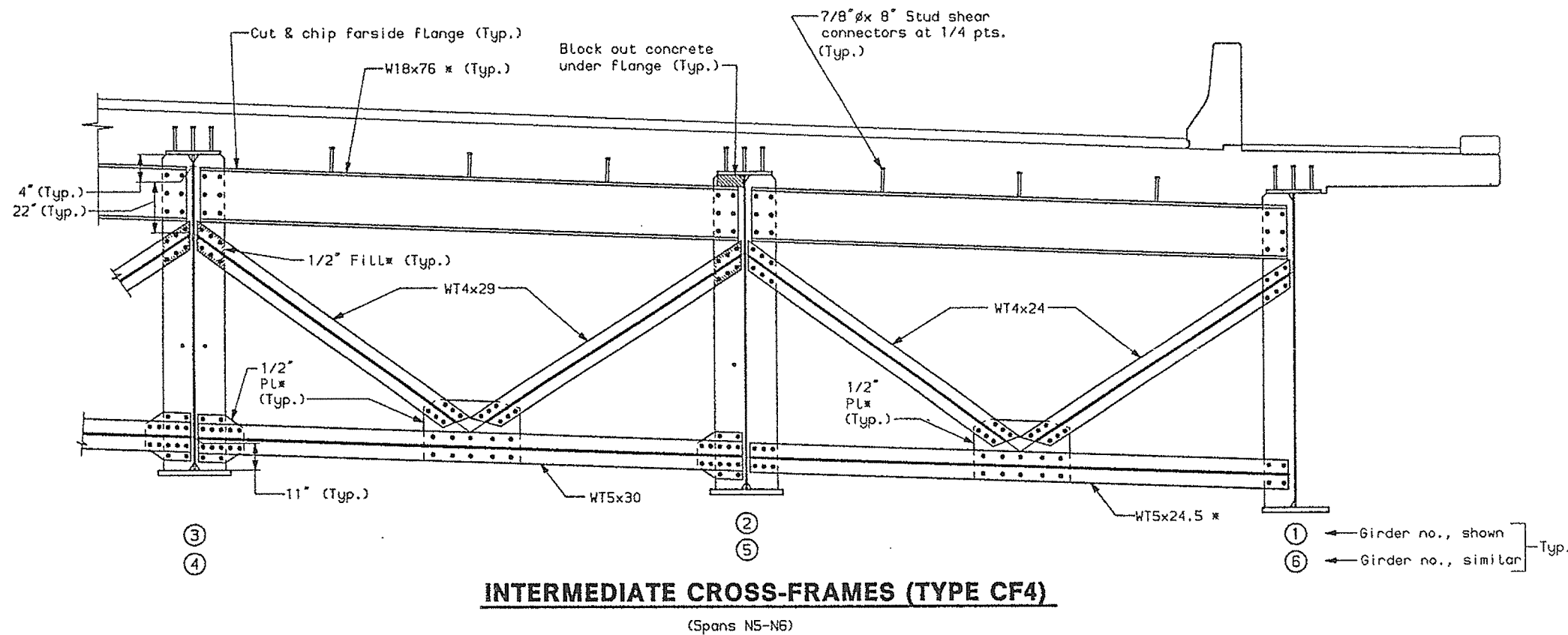
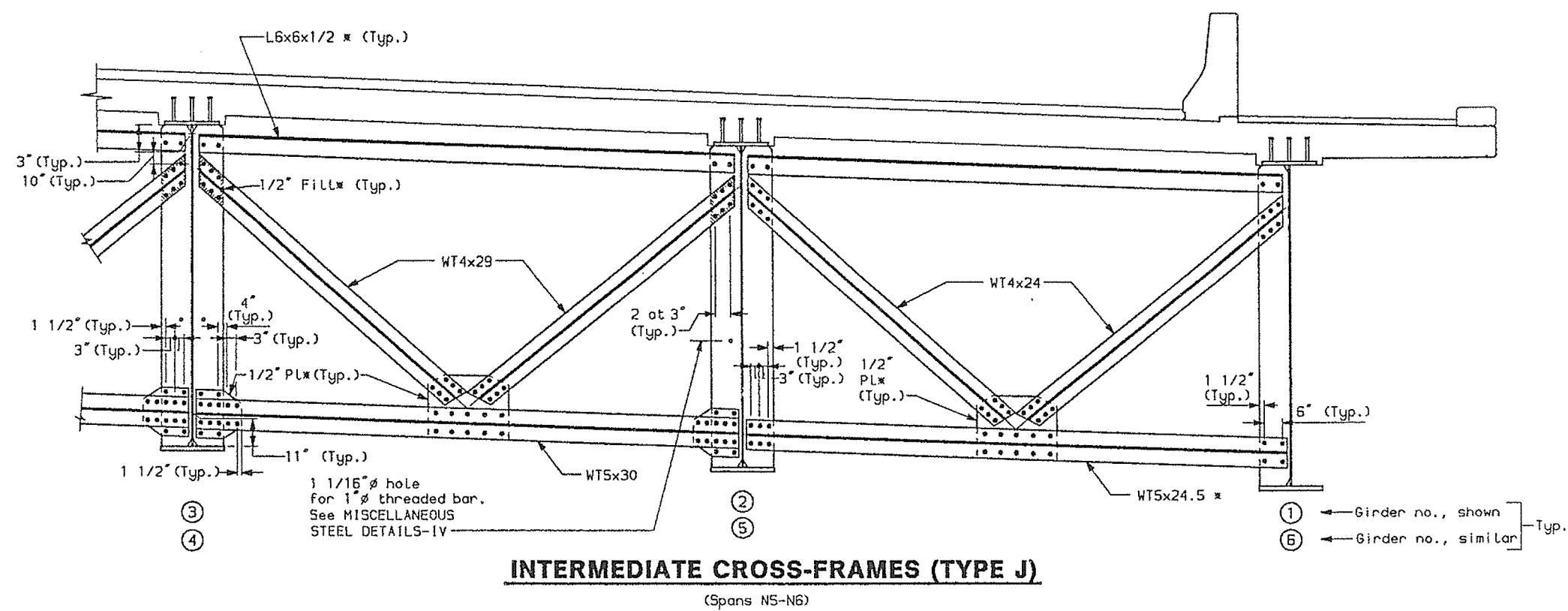
OVER FORE R

CUMBERLAND C

NORTH APPR

CROSS-FRAME DE

SHEET 67 OF 156 AUGUSTA, M

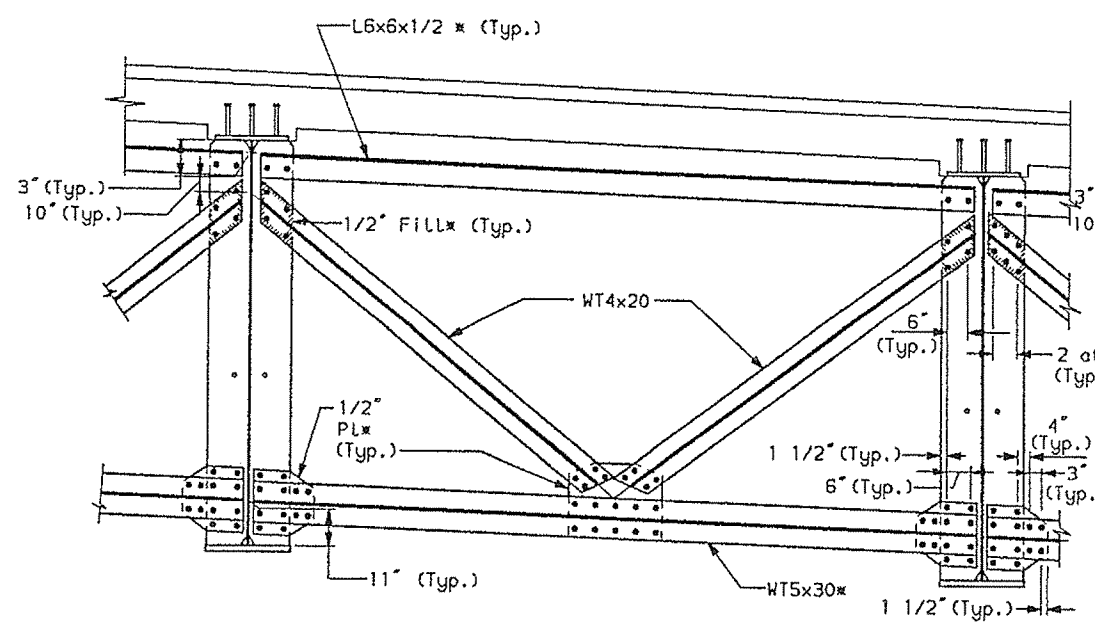


NOTE:
* AASHTO M270 (ASTM A709), Gr. 3

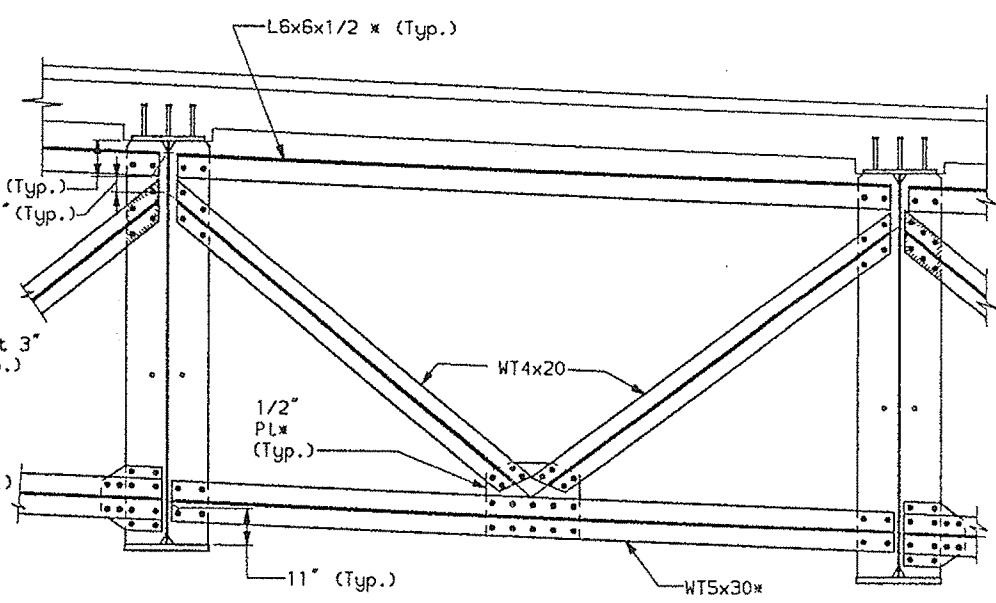
NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT
OVER FORE F
CUMBERLAND C
NORTH APP
CROSS-FRAME D
SHEET 68 OF 156 AUGUSTA,

DESIGN-Detailed HCL ELS 6-94
CHECKED PDB 6-94
REVISION
FIELD CHANGES
PLANS

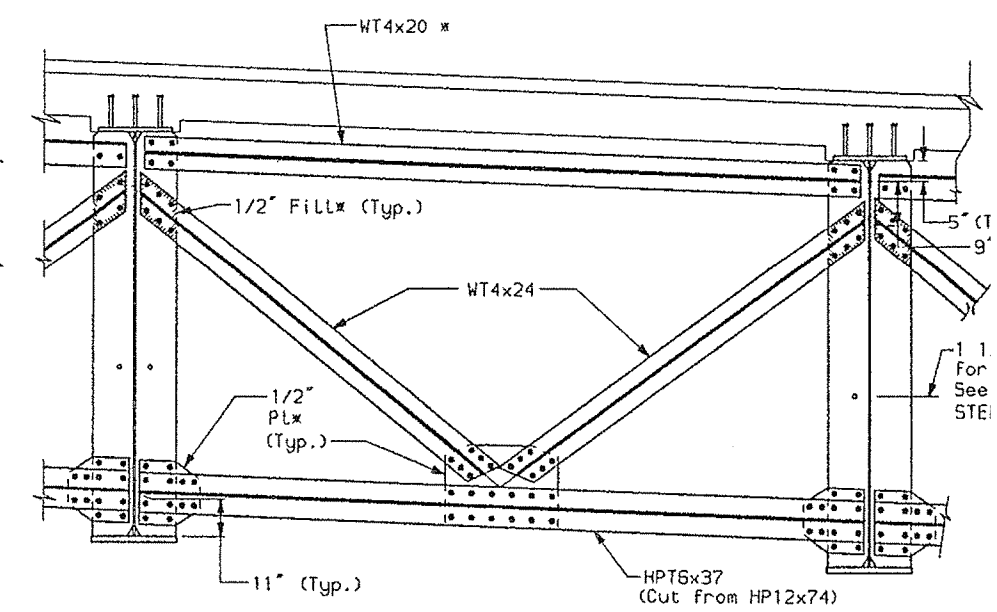
na.cframe.3



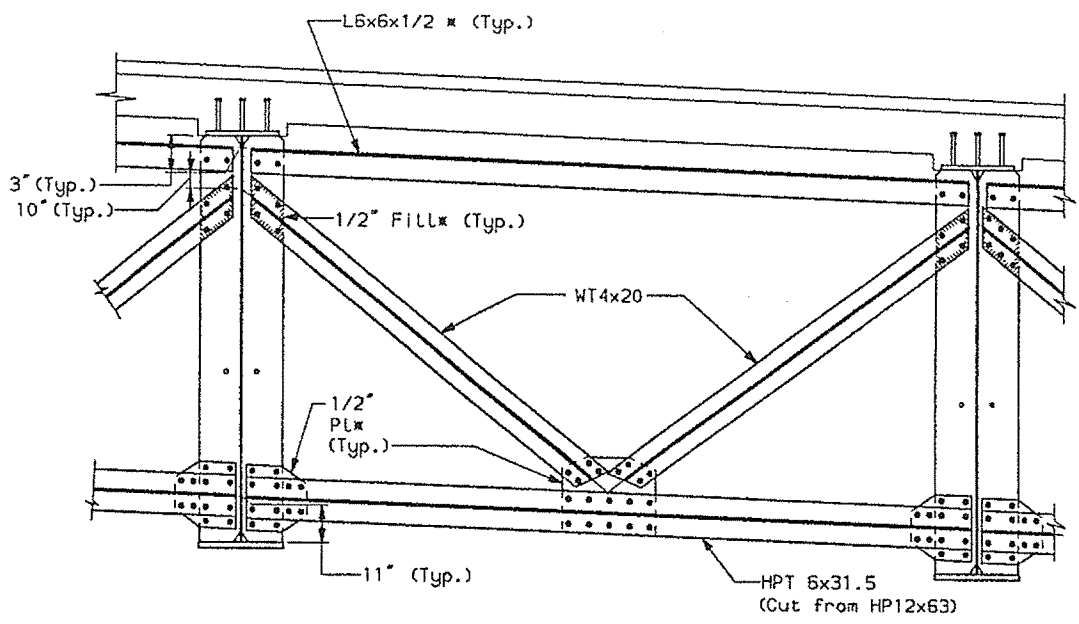
INTERMEDIATE CROSS-FRAMES (TYPE K)
(Spans N1-N4)



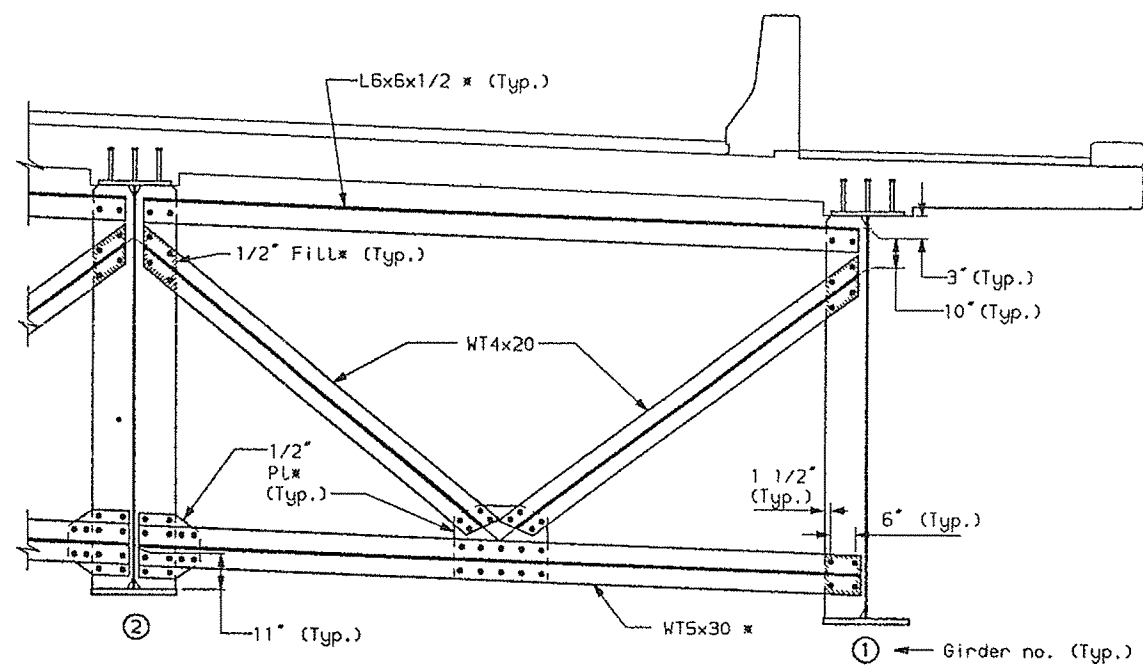
INTERMEDIATE CROSS-FRAMES (TYPE L)
(Spans N1-N4)



INTERMEDIATE CROSS-FRAMES (TYPE M)
(Span N1)



INTERMEDIATE CROSS-FRAMES (TYPE N)
(Span N1)

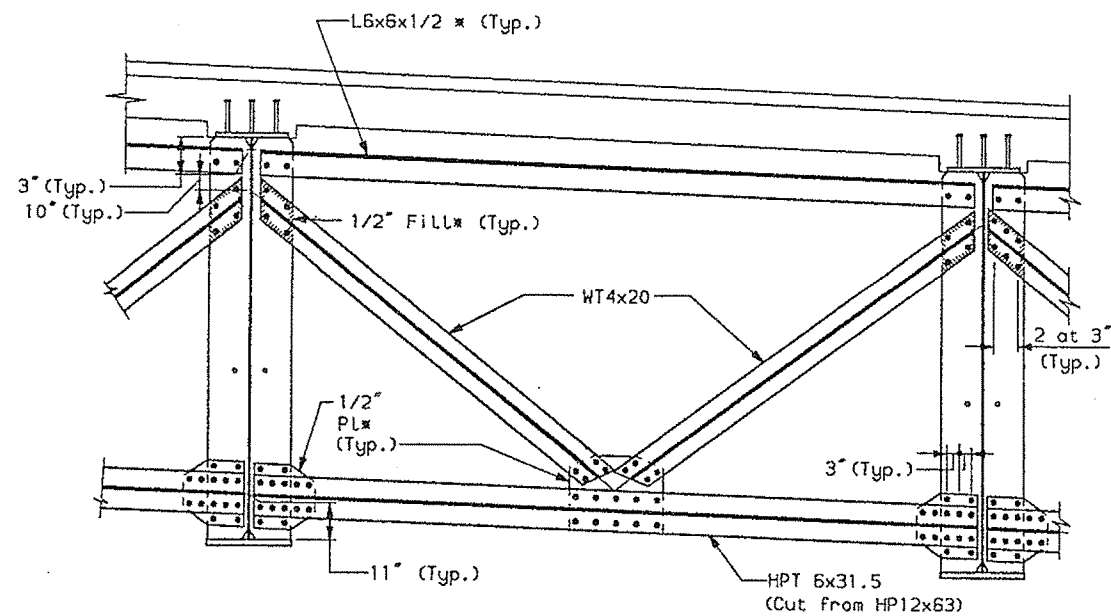


INTERMEDIATE CROSS-FRAMES (TYPE P)
(Spans N2-N4)

NOTE:
* AASHTO M270 (ASTM A709), Gr. 50

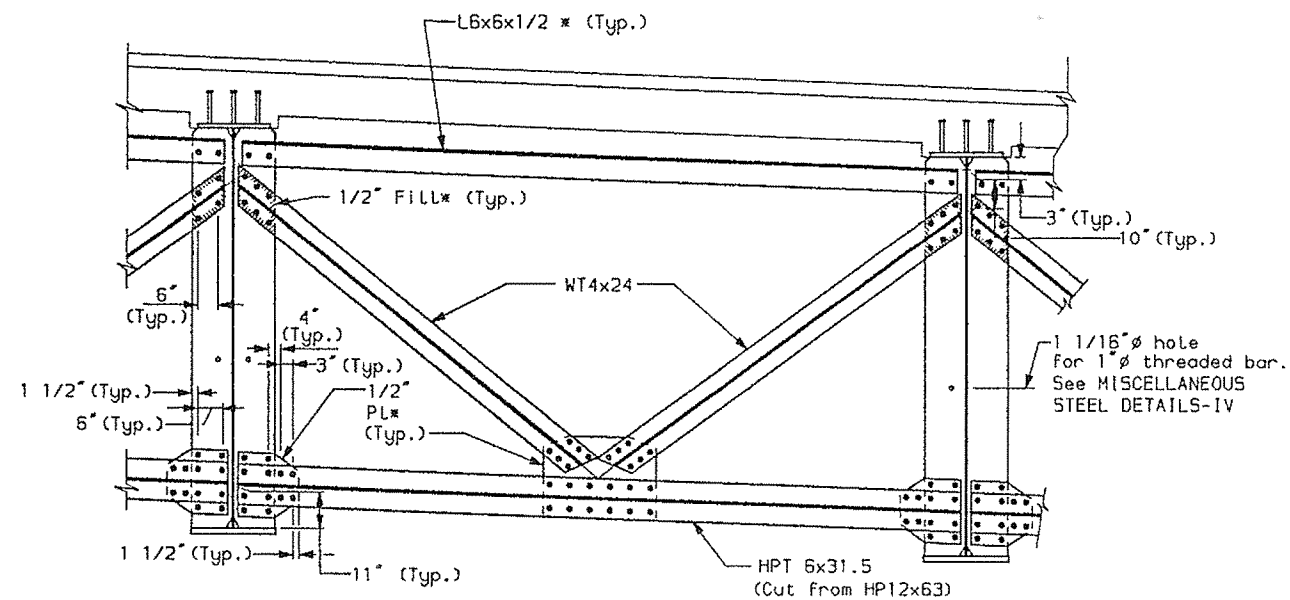
NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY
NORTH APPROACH
CROSS-FRAME DETAIL
SHEET 69 OF 156 AUGUSTA, ME

PLANS
DESIGN-DETAILED
CHECKED
REVISION
FIELD CHANGES
DATE
BY
HCB
ELLS
6-94
6-94



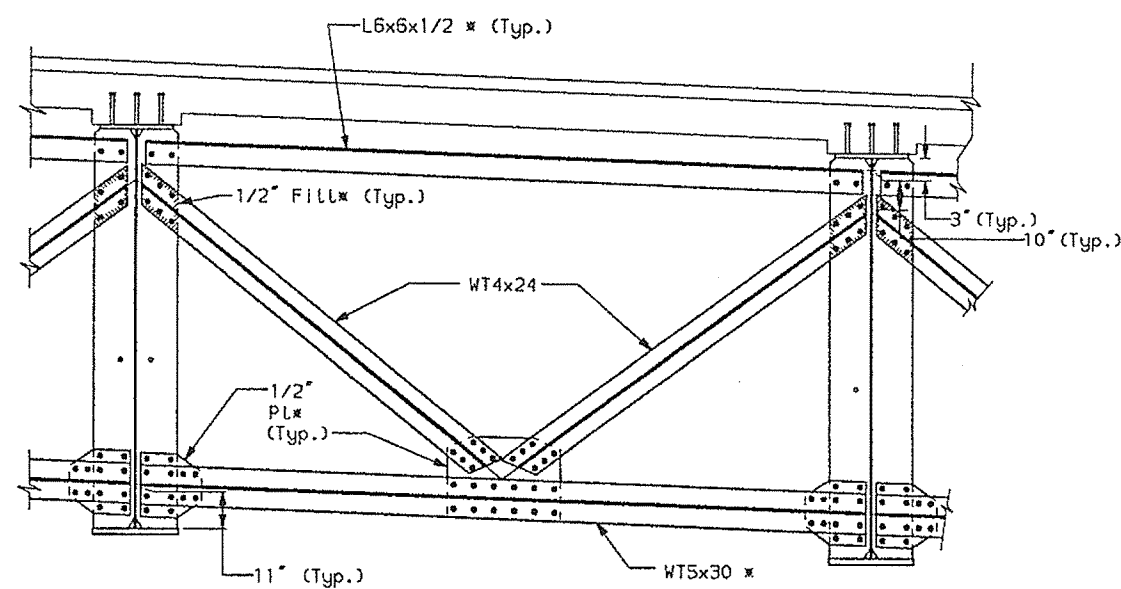
INTERMEDIATE CROSS-FRAMES (TYPE Q)

(Spans N2 & N3)



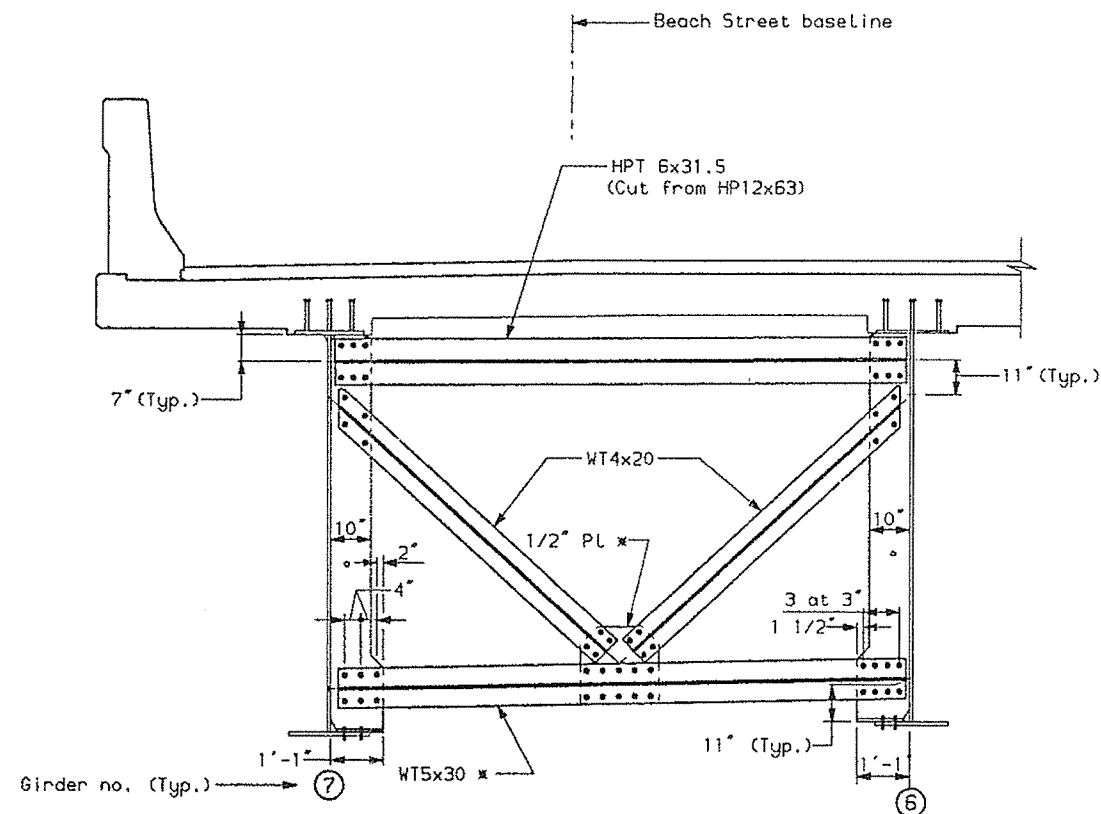
INTERMEDIATE CROSS-FRAMES (TYPE R)

(Spans N2 & N4)



INTERMEDIATE CROSS-FRAMES (TYPE S)

(Span N4)



INTERMEDIATE CROSS-FRAME (TYPE T)

(Span N4)

NOTE:

* AASHTO M270 (ASTM A709), Gr. 50

NORTH APPROACH

STATE OF MAINE
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PORTLAND - S. PORT
OVER FORE RIVER
CUMBERLAND COUNTY

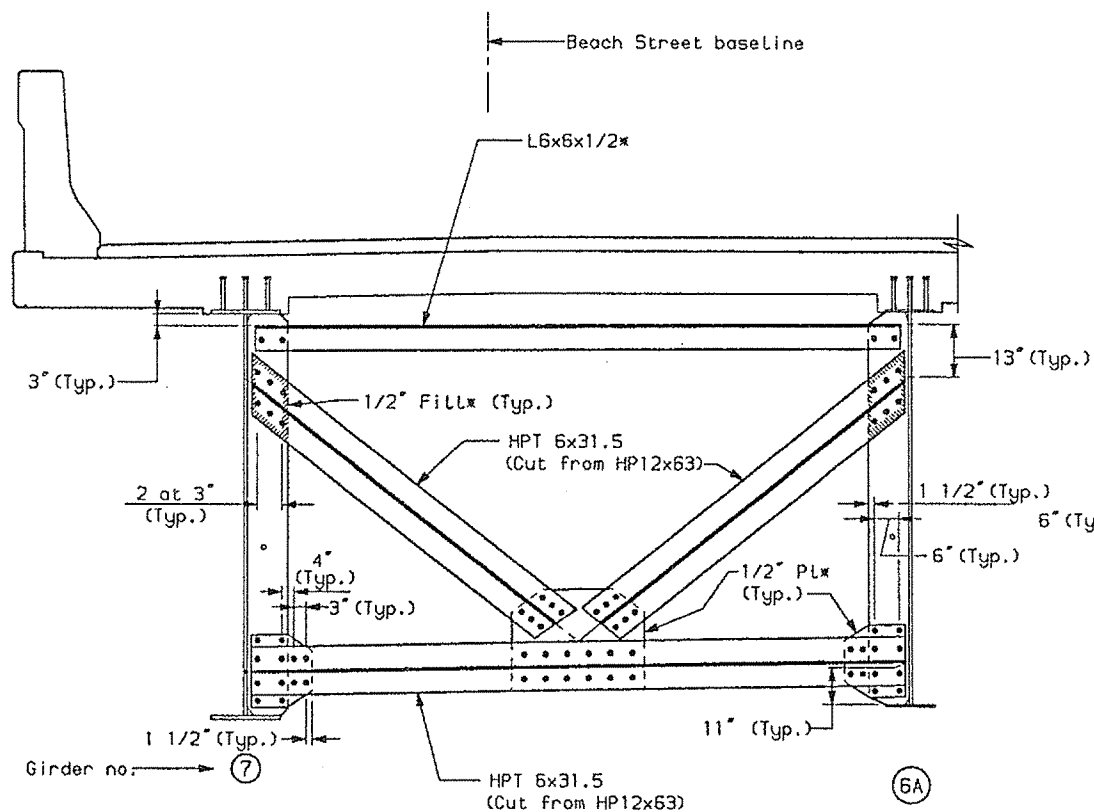
NORTH APPROACH
CROSS-FRAME DETAIL

SHEET 70 OF 155 AUGUSTA, ME

DATE	8-94
BY	ELB
CHK	PDB
DESIGN-DETAILED	
CHECKED	
REVISION	
FIELD CHANGES	

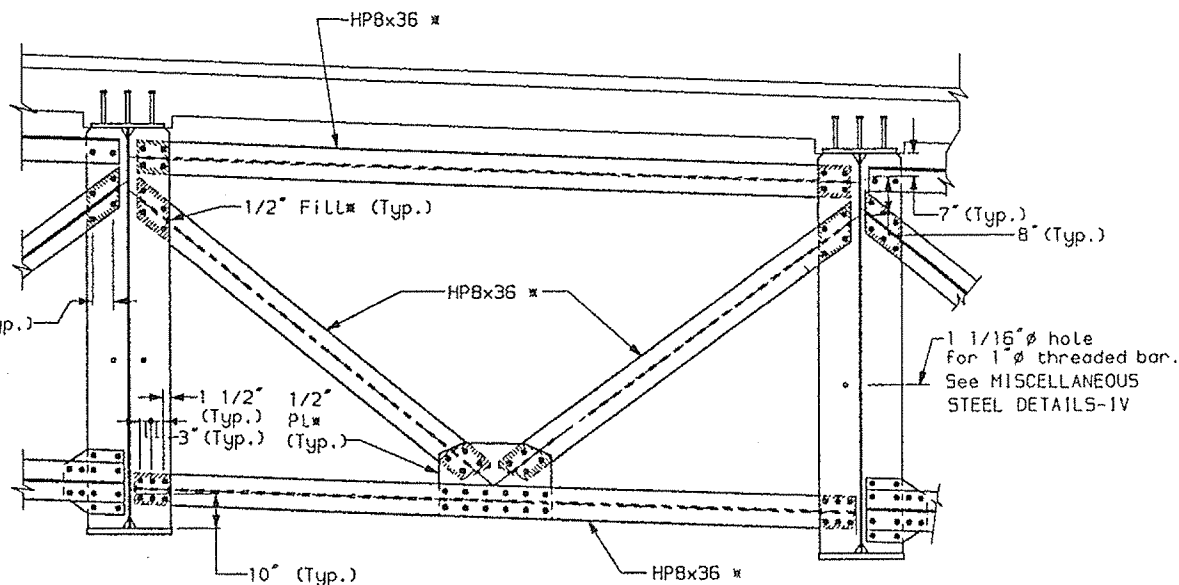
PLANS

na.cframe.5



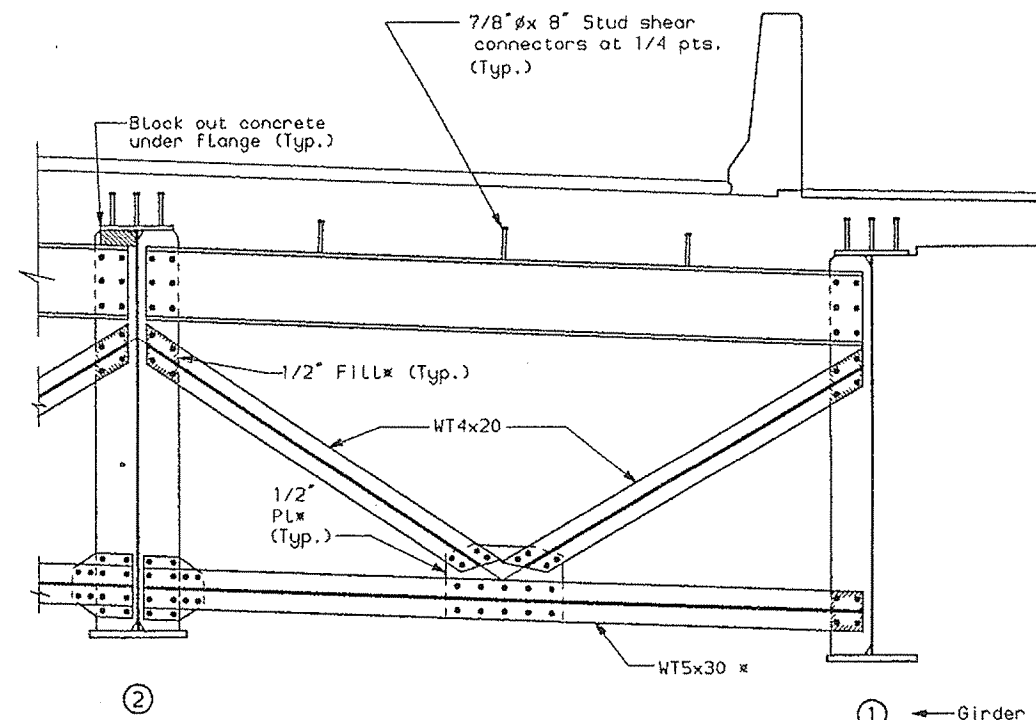
INTERMEDIATE CROSS-FRAME (TYPE U)

(Span N4)



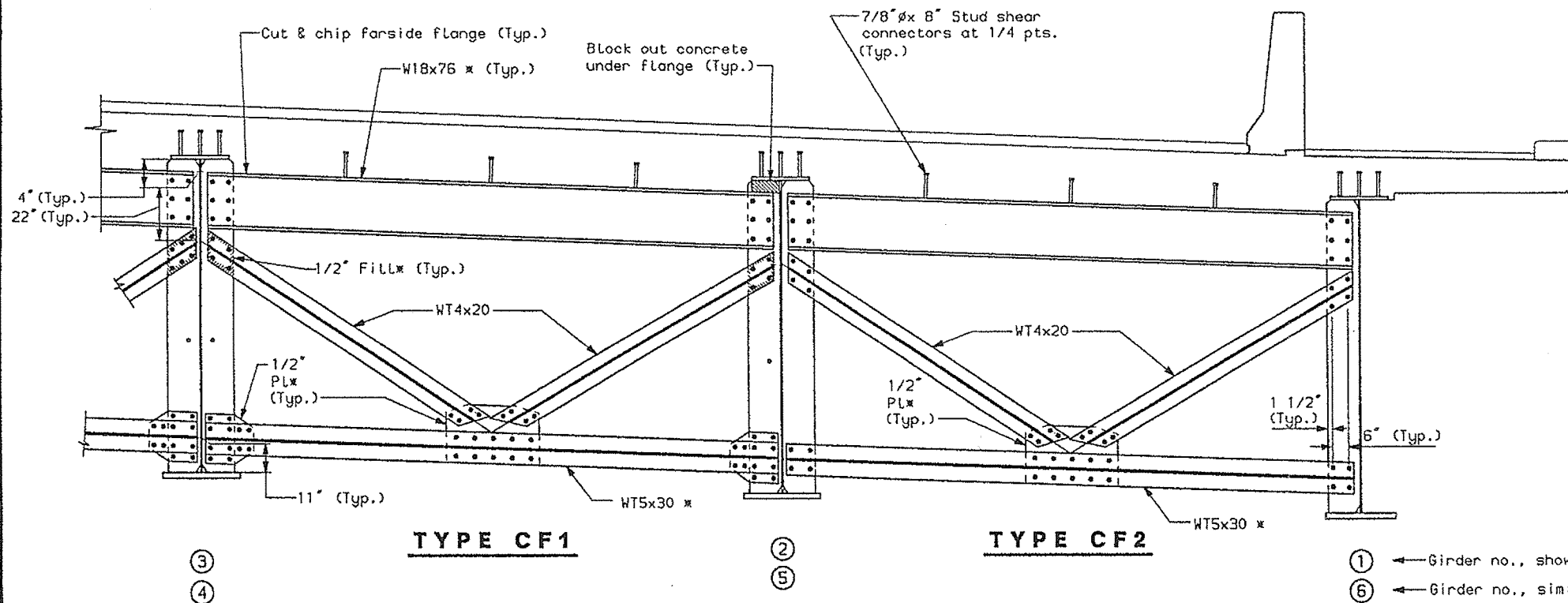
INTERMEDIATE CROSS-FRAMES (TYPE V)

(Span N4)



INTERMEDIATE CROSS-FRAMES (TYPE CF3)

(Span N4)



TYPE CF1

TYPE CF2

INTERMEDIATE CROSS-FRAMES (TYPE CF1 AND CF2)

(Spans N2, N3 and N4)

- 1 ← Girder no., shown
- 6 ← Girder no., similar
- Typ.

NOTE:

* AASHTO M270 (ASTM A709), Gr. 36

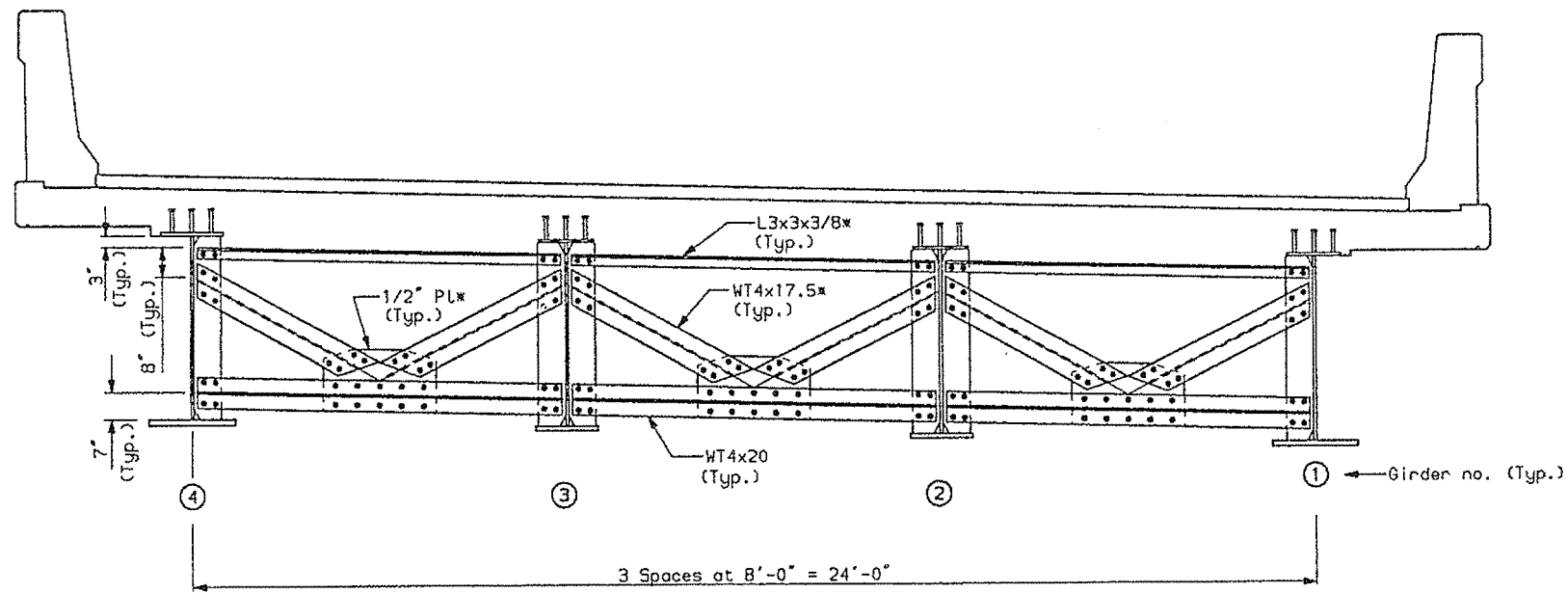
NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANSPORTATION

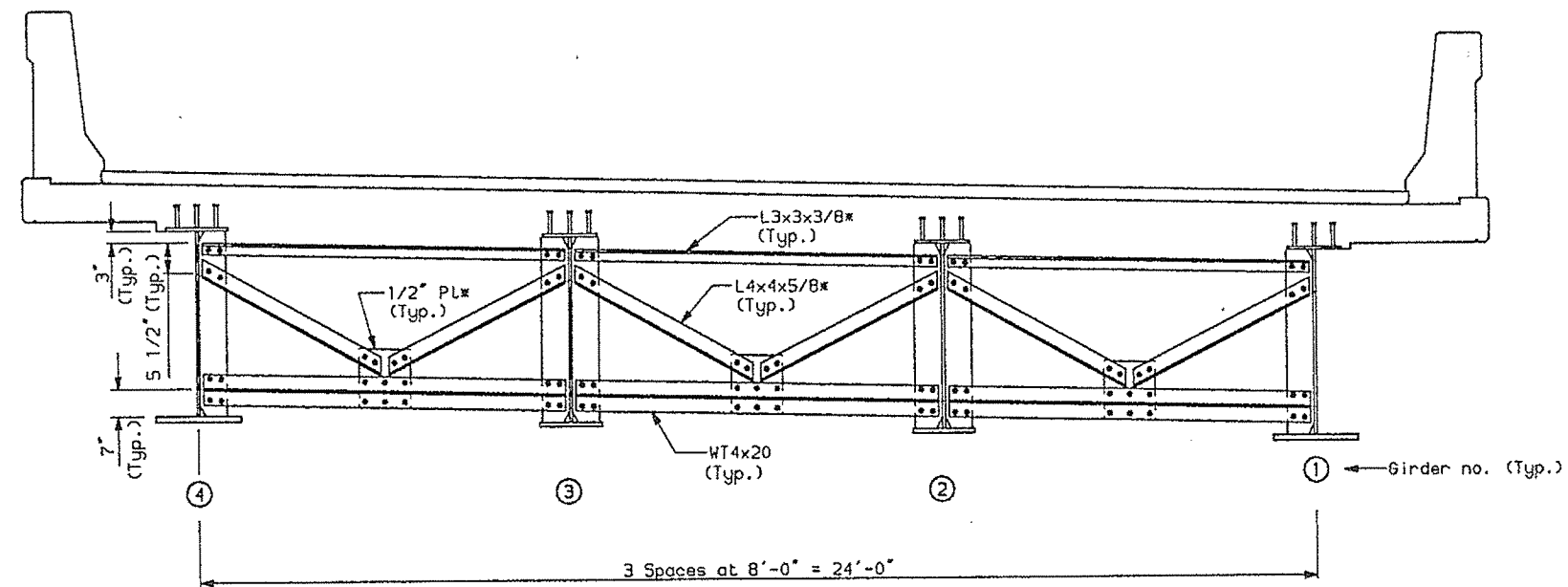
**PORTLAND - S. PORT
OVER FORE
CUMBERLAND**

**NORTH APPROACH
CROSS-FRAME I**

SHEET 71 OF 156 AUGUSTA, 1994



INTERMEDIATE CROSS-FRAMES (TYPE E)
(Spans R2 & R3)



INTERMEDIATE CROSS-FRAMES (TYPE F)
(Spans R2 & R3)

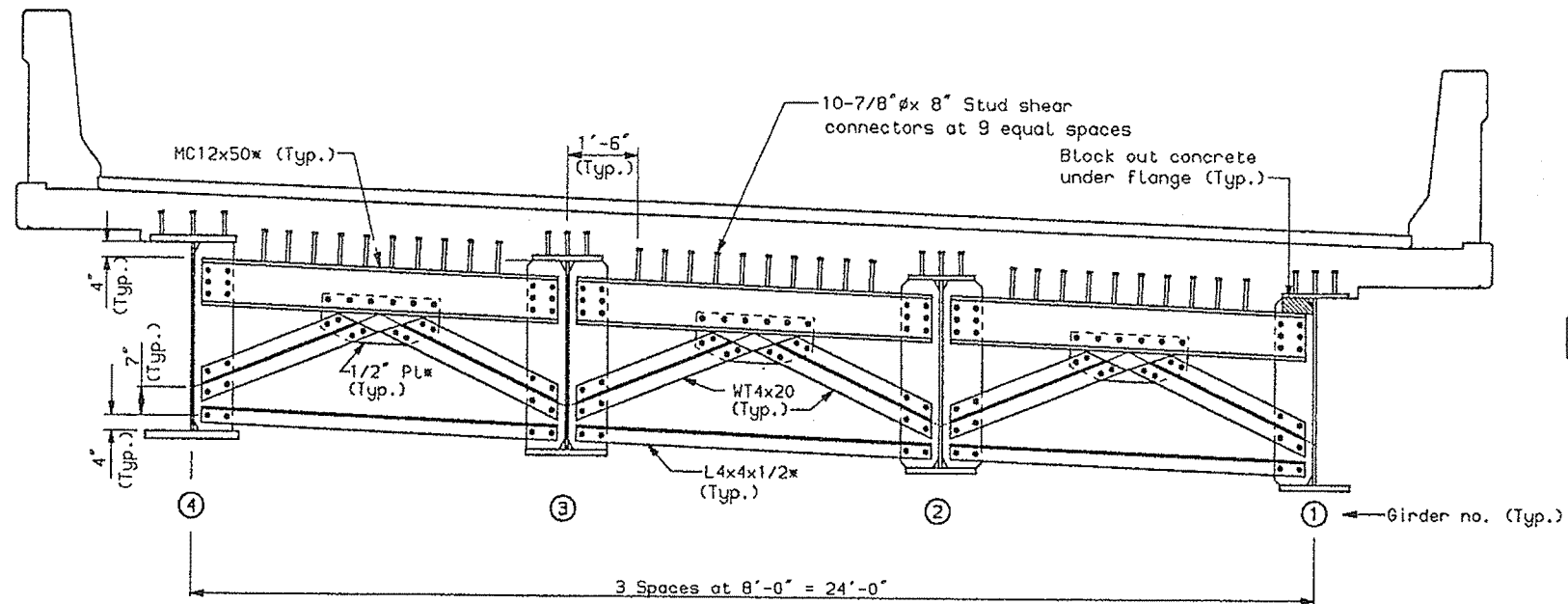
NOTE:
*AASHTO M270 (ASTM A709), Gr. 36

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND
OVER FORE
CUMBERLAND
NORTH APPROACH
CROSS-FRAME
SHEET 72 OF 156 AUGUSTA

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	
PLANS	

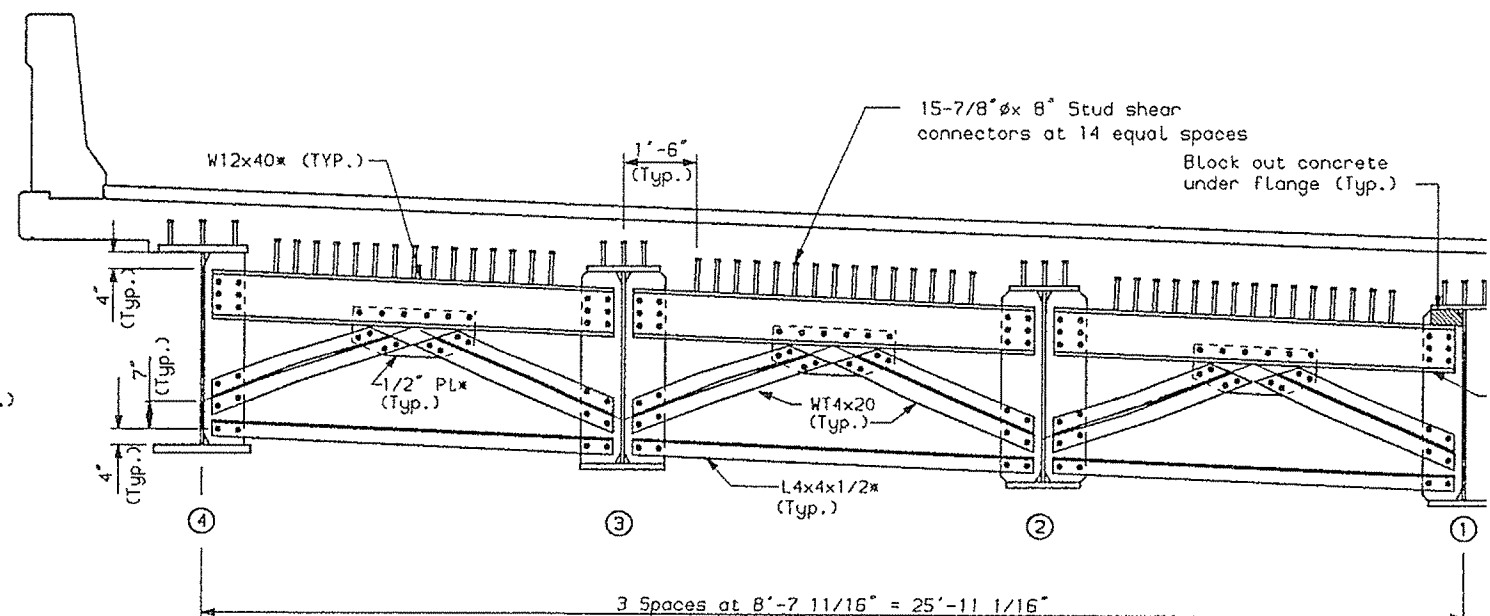
10.3.00

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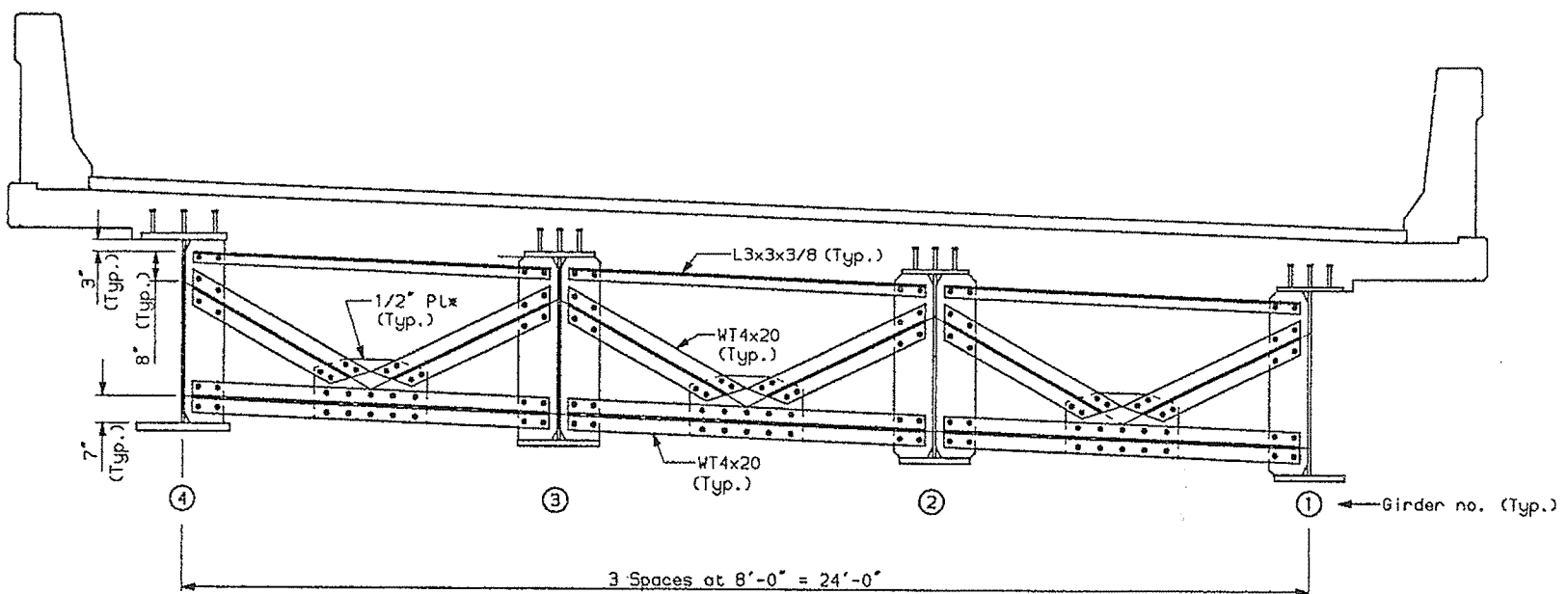
PIER CROSS-FRAMES (TYPE D)

(Spans R2-R6)



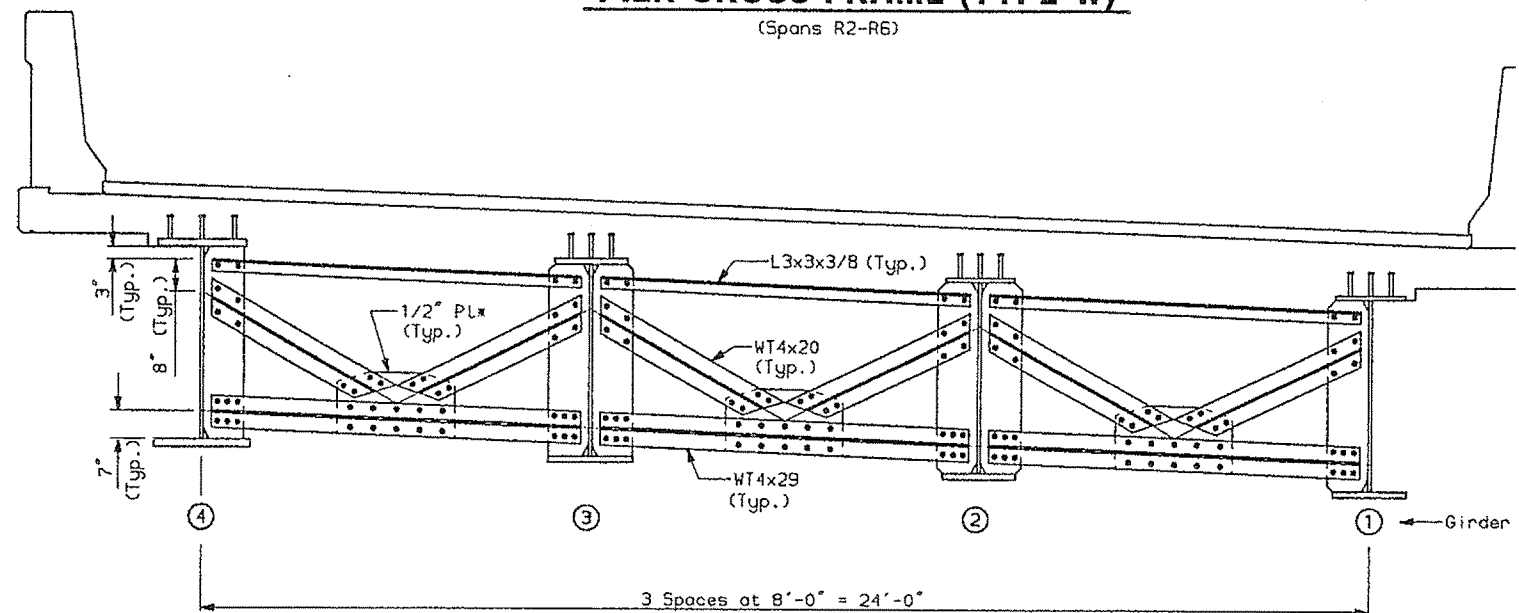
PIER CROSS-FRAME (TYPE W)

(Spans R2-R6)



INTERMEDIATE CROSS-FRAMES (TYPE G)

(Spans R4-R6)



INTERMEDIATE CROSS-FRAMES (TYPE H)

(Spans R4-R6)

NOTE:

*AASHTO M270 (ASTM A709), Gr. 36

NORTH APPROACH

STATE OF MAINE
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**PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY**

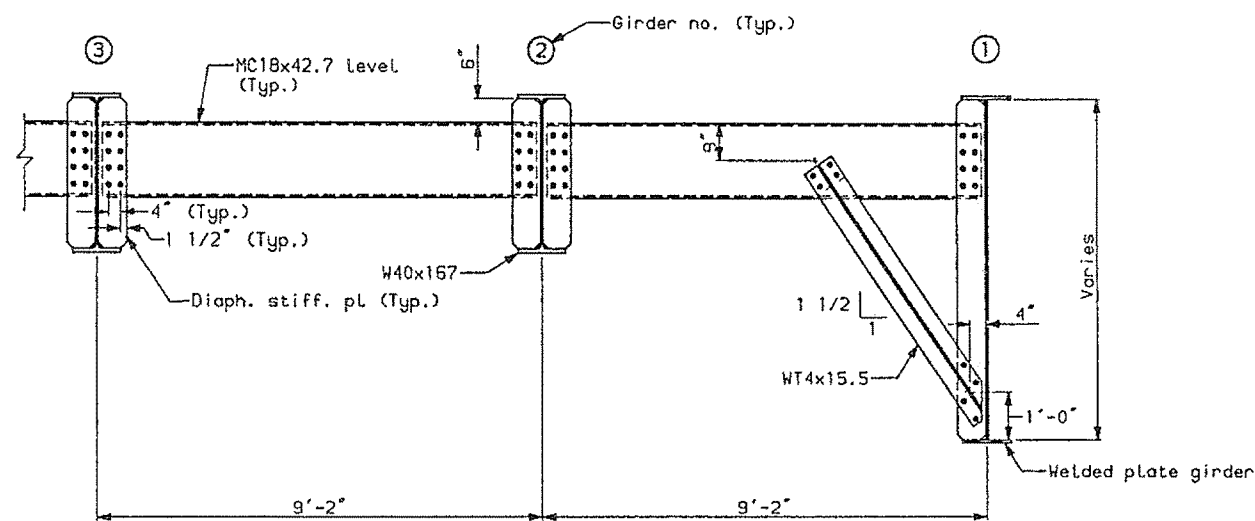
**NORTH APPROACH
CROSS-FRAME DE**

SHEET 73 OF 156 AUGUSTA, MA

DESIGNED BY: J. B. L. E. 6-94
CHECKED BY: P. B. 6-94
REVISION
FIELD CHANGES

PLANS

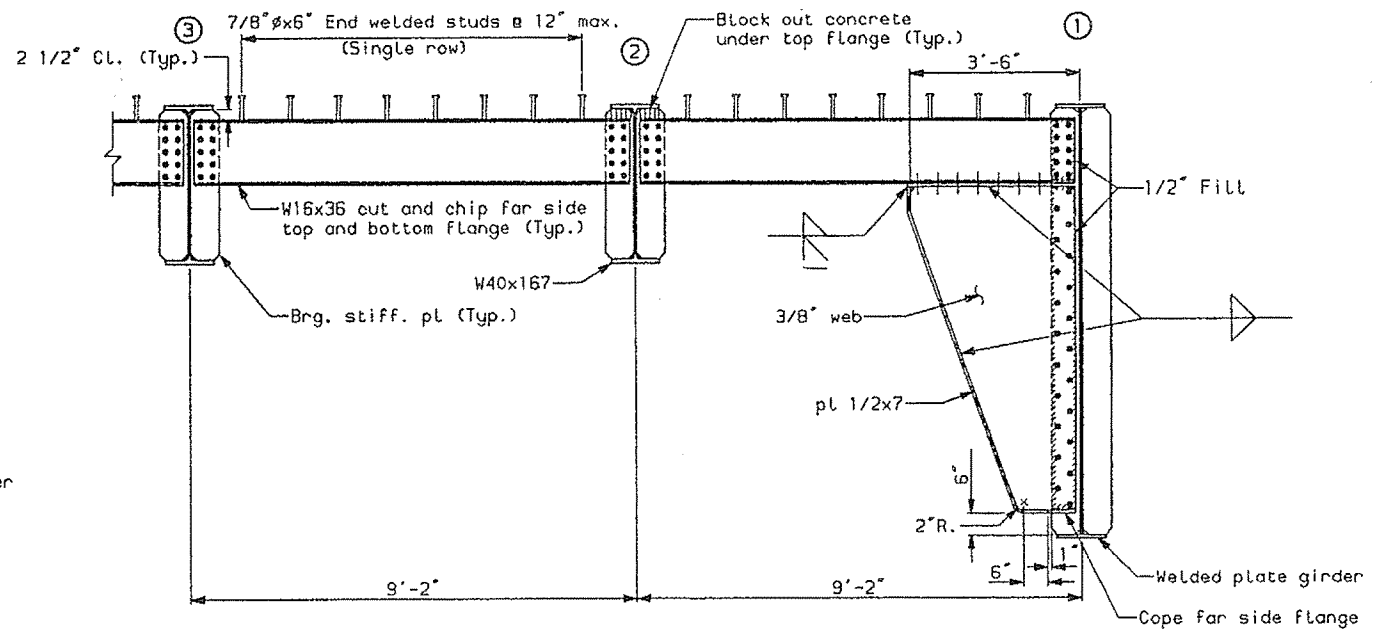
beach.cframe.1



(TYPE 1)

(TYPE 3)

INTERMEDIATE DIAPHRAGMS



(TYPE 2)

(TYPE 4)

END DIAPHRAGMS

NOTE:

ALL structural steel shall be Gr. 36.

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
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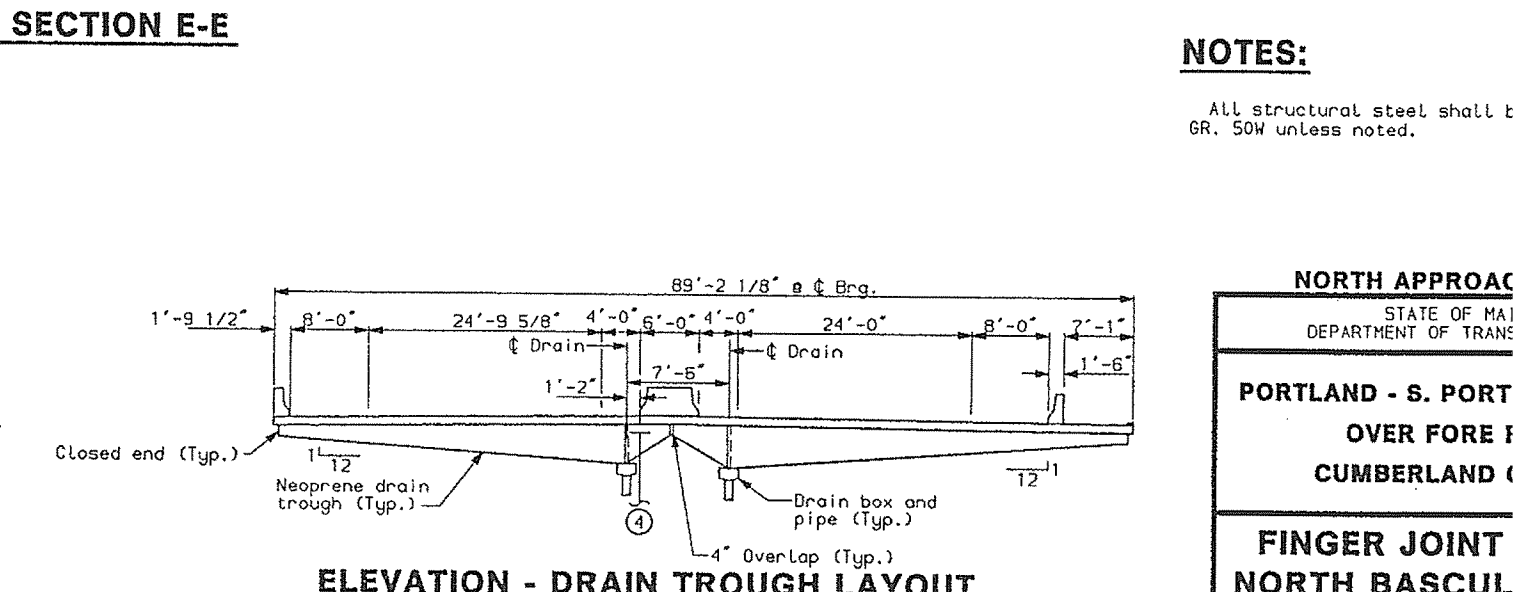
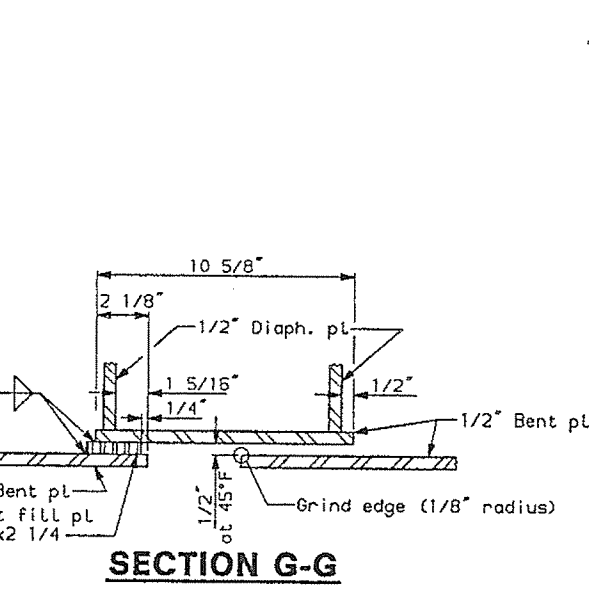
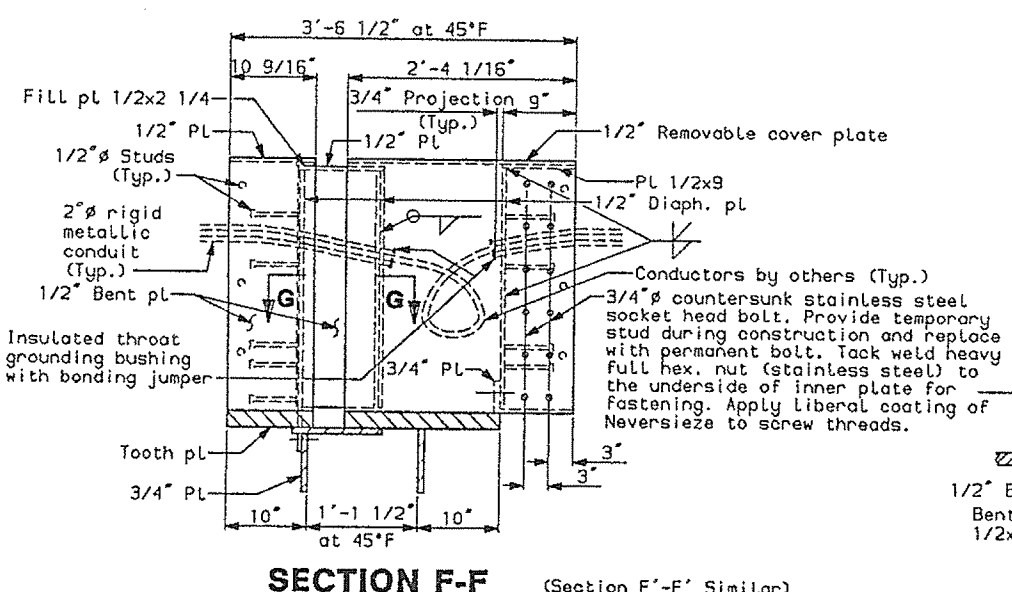
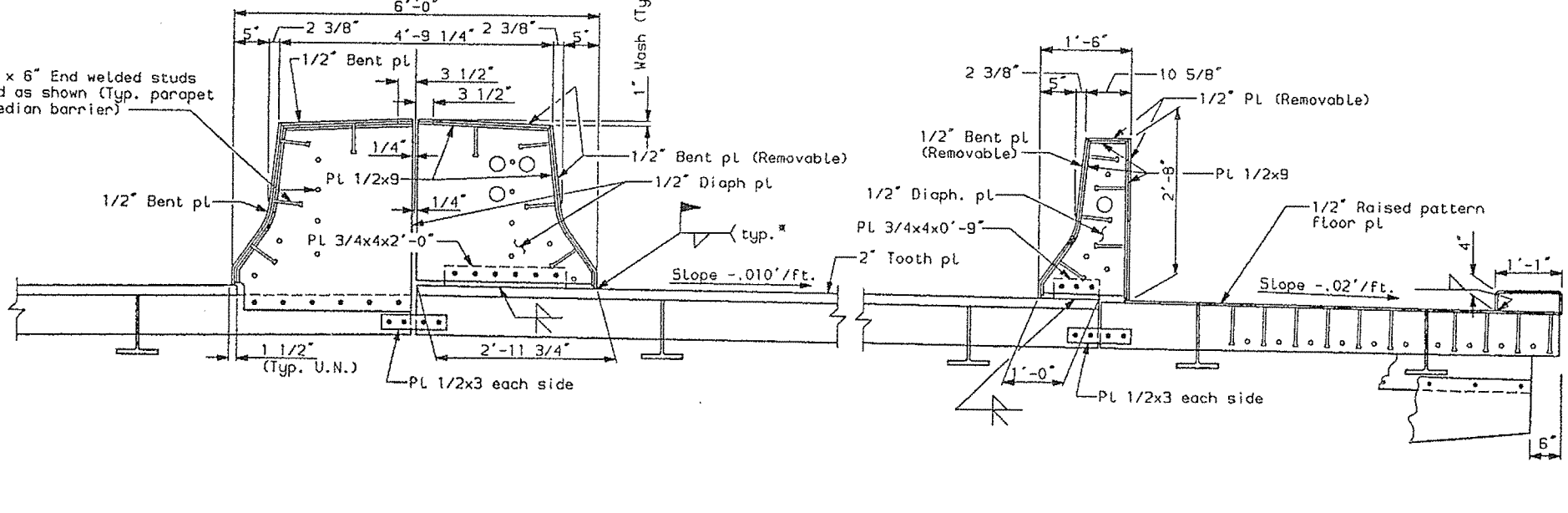
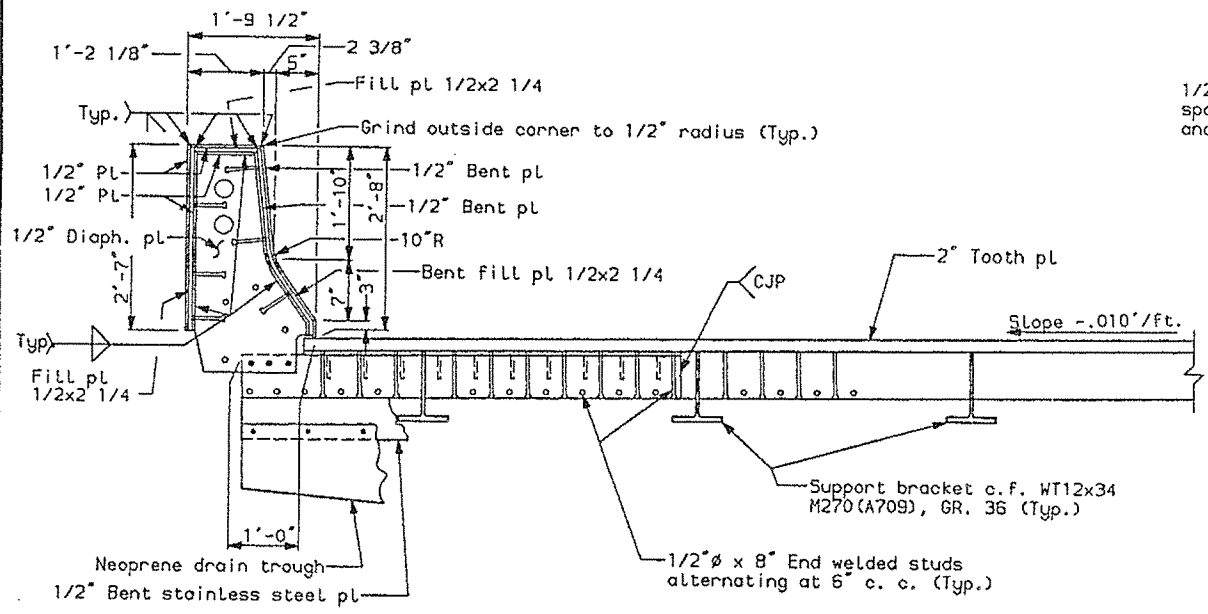
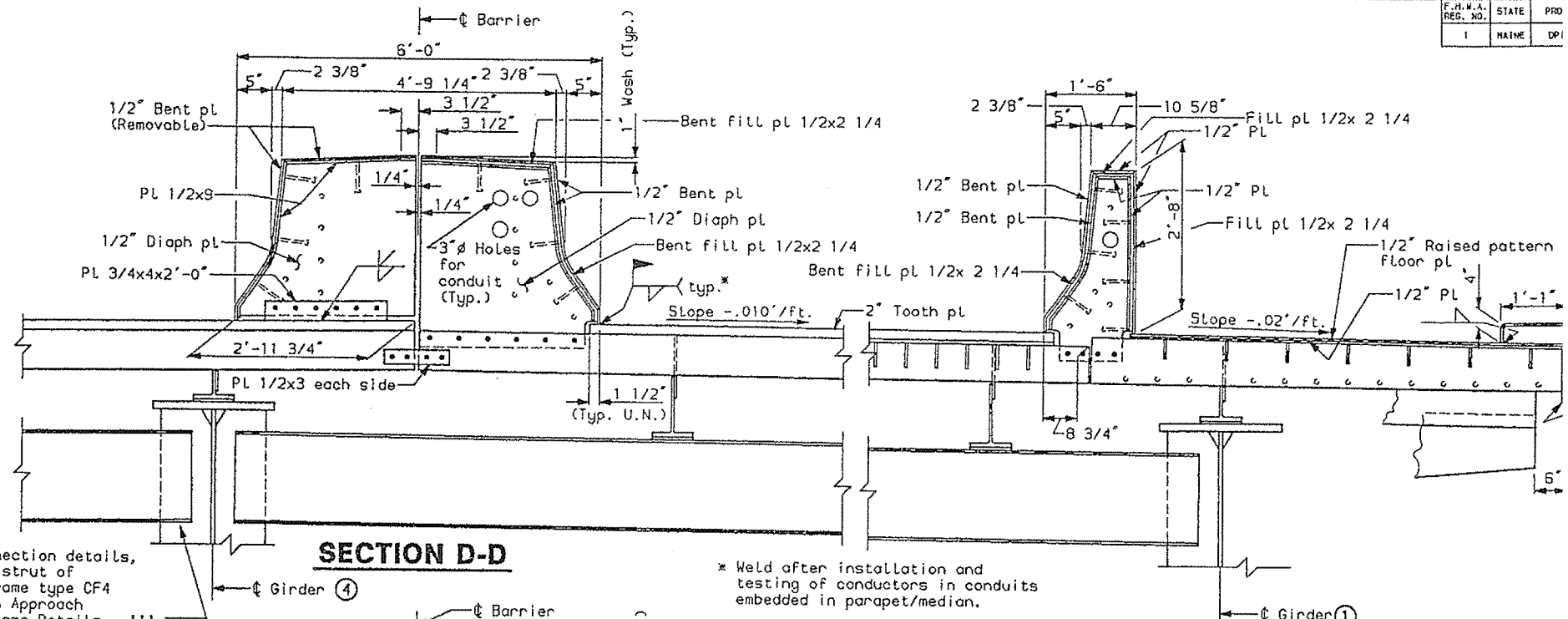
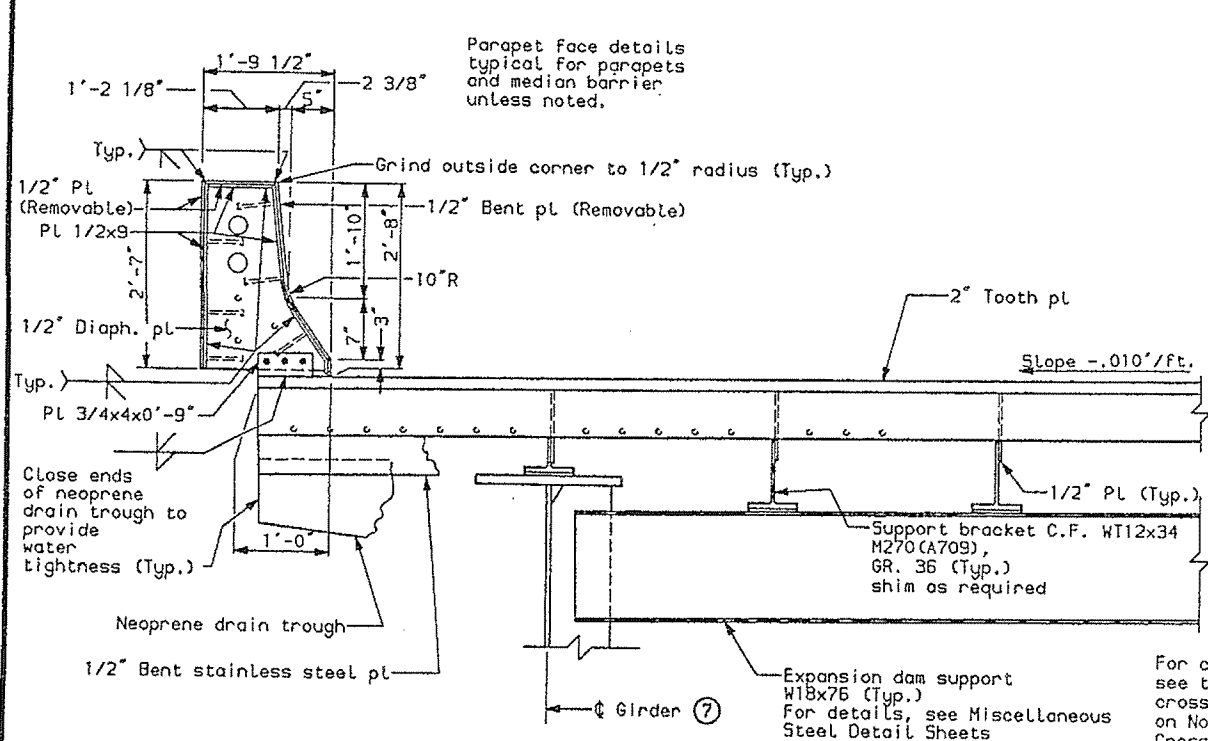
**DIAPHRAGM I
SPAN N**

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DESIGN	BY	DATE
DESIGN-DETAILED	SLH	6-94
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FIELD CHANGES		

PLANS

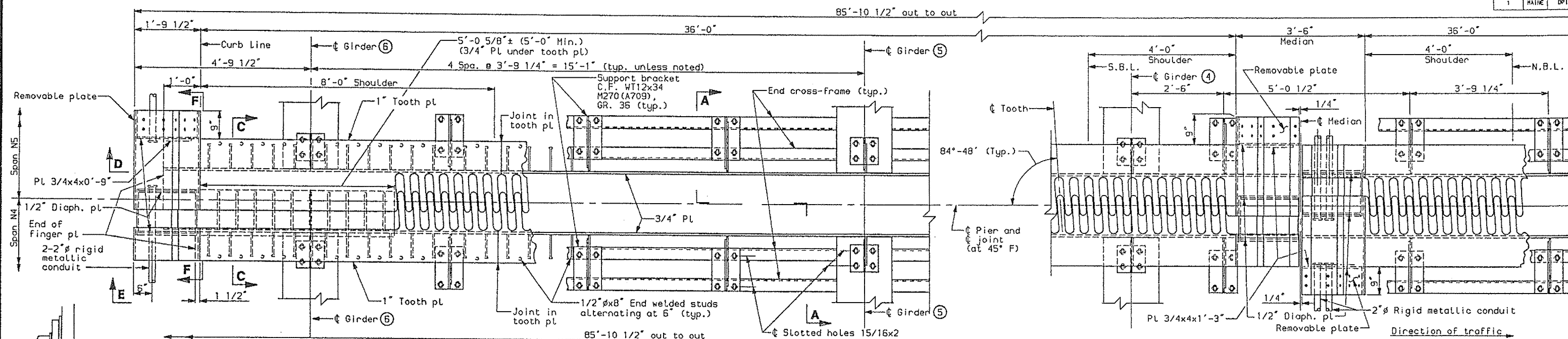
diaph.n7



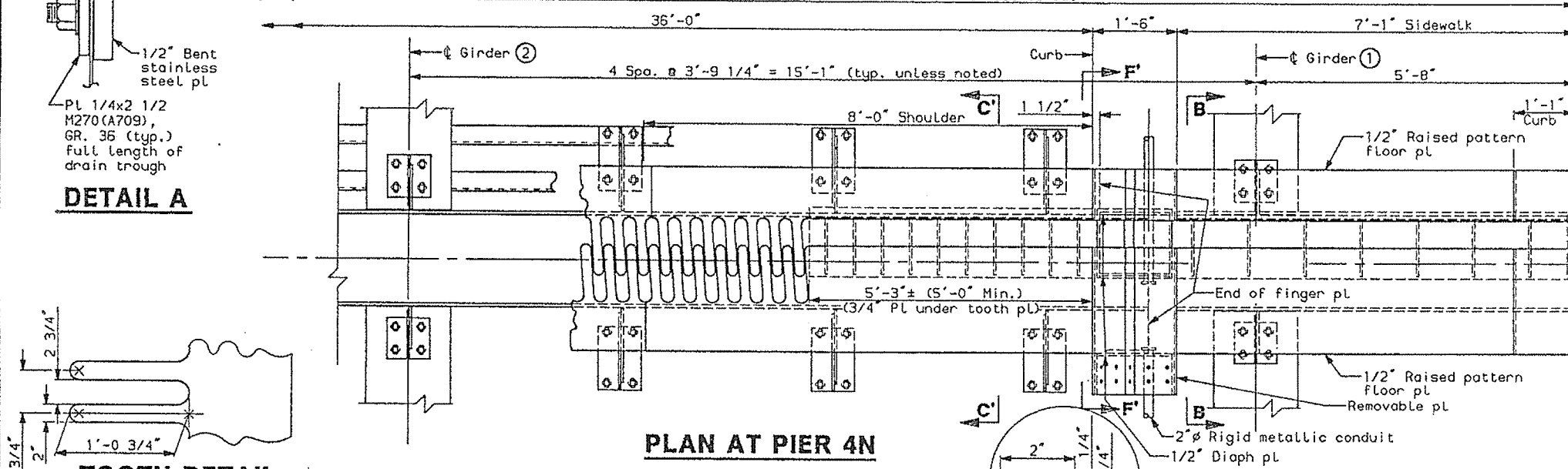
NOTES:
All structural steel shall be GR. 50W unless noted.

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT
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NORTH BASCUL

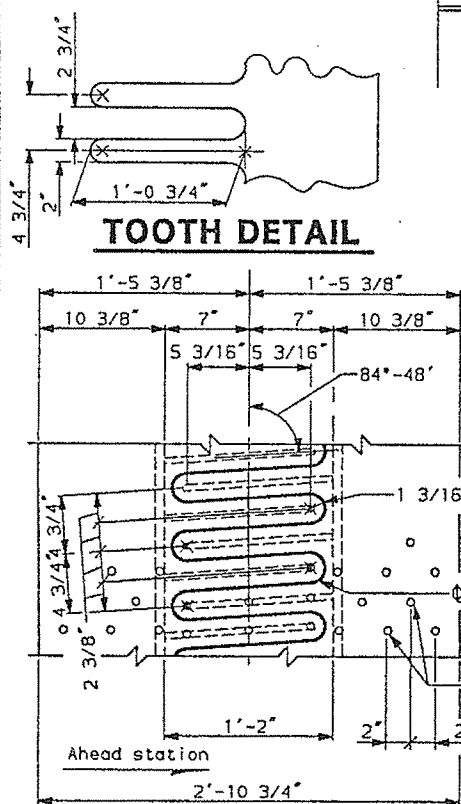
DATE: 6-94
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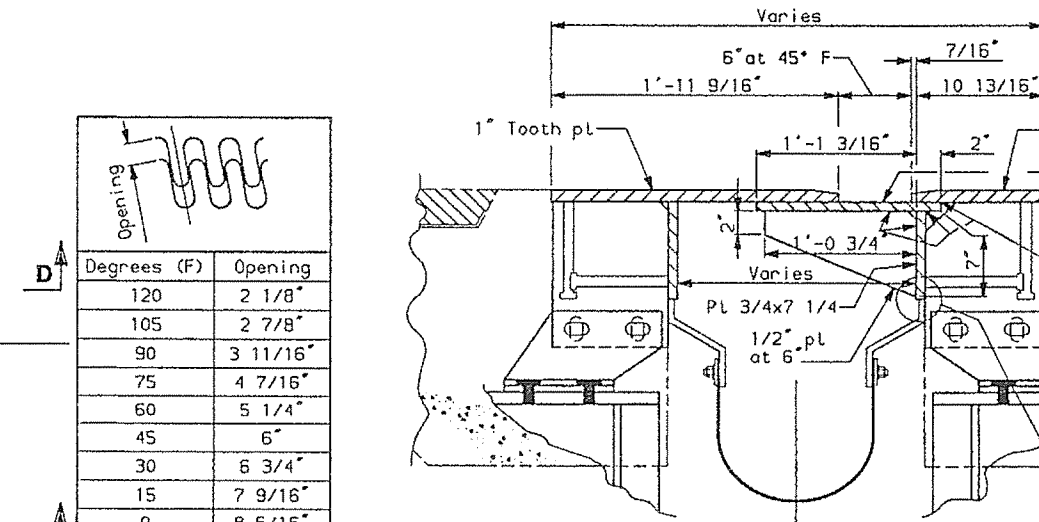
DETAIL A



PLAN AT PIER 4N



CUTTING DETAIL

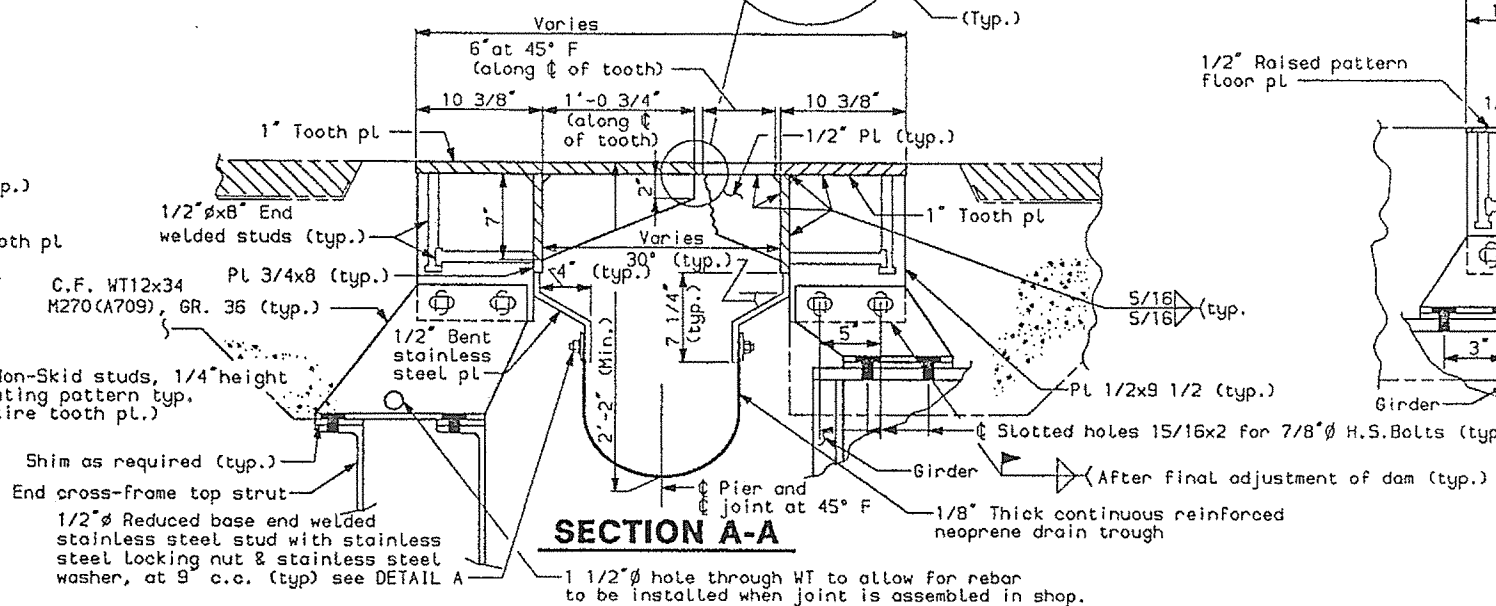


SECTION C-C 1/
SECTION C'-C' (Similar)

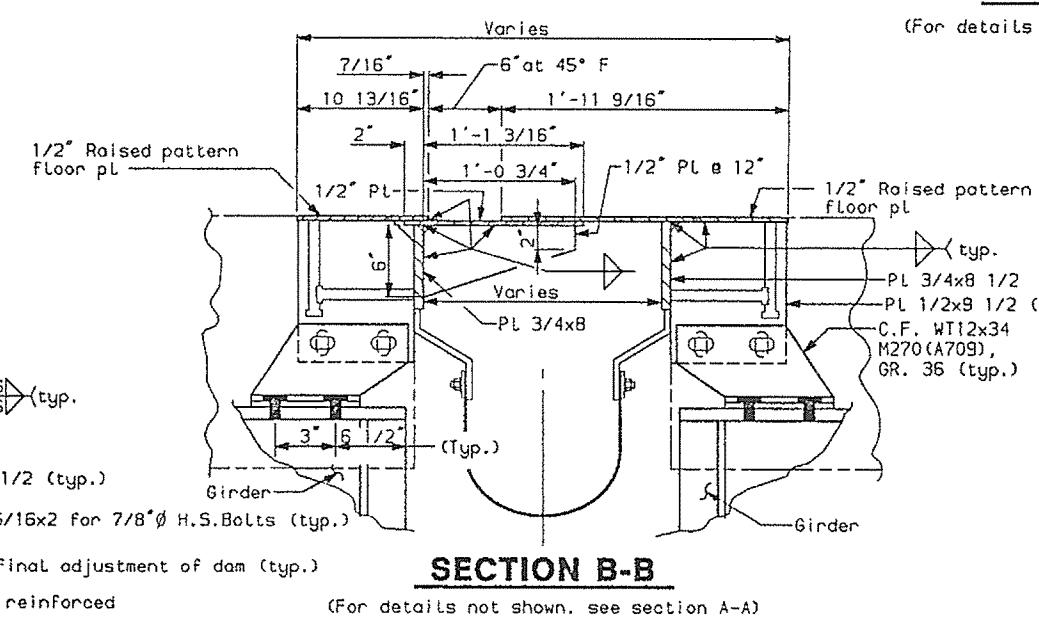
(For details not shown, see section A-A)

NOTES:

Stainless steel shall conform to AISI type 316.



SECTION A-A



SECTION B-B

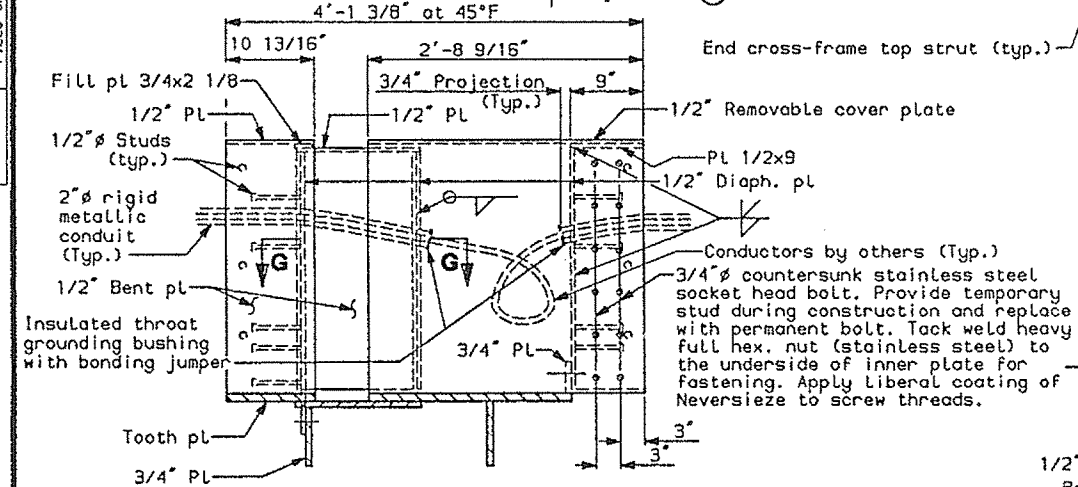
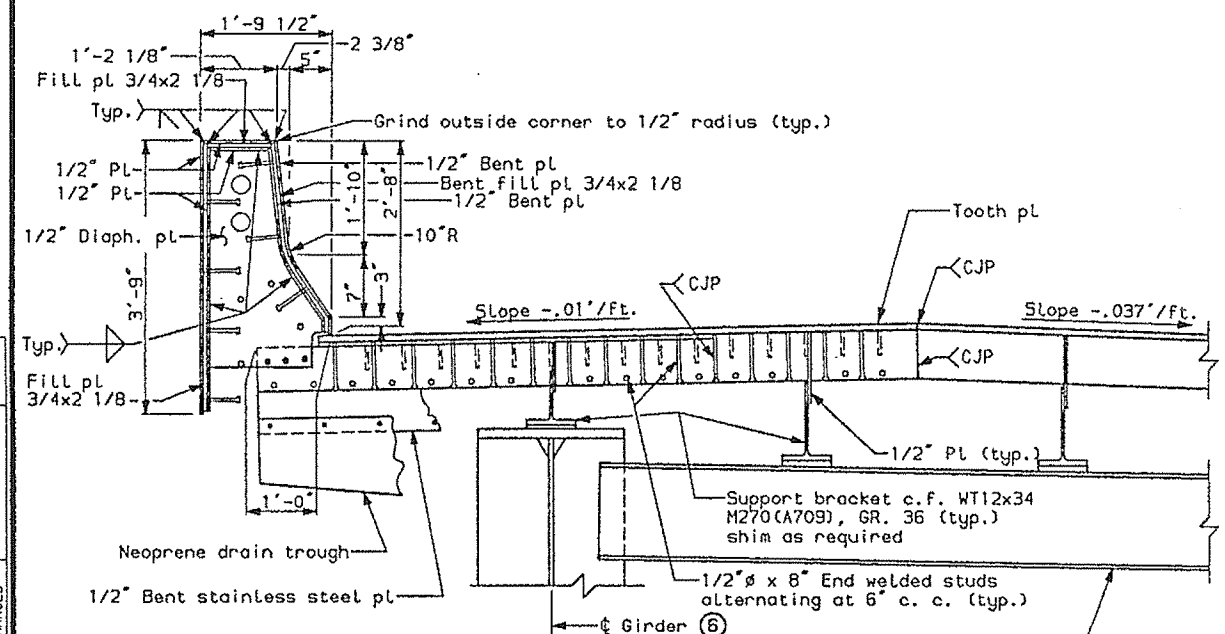
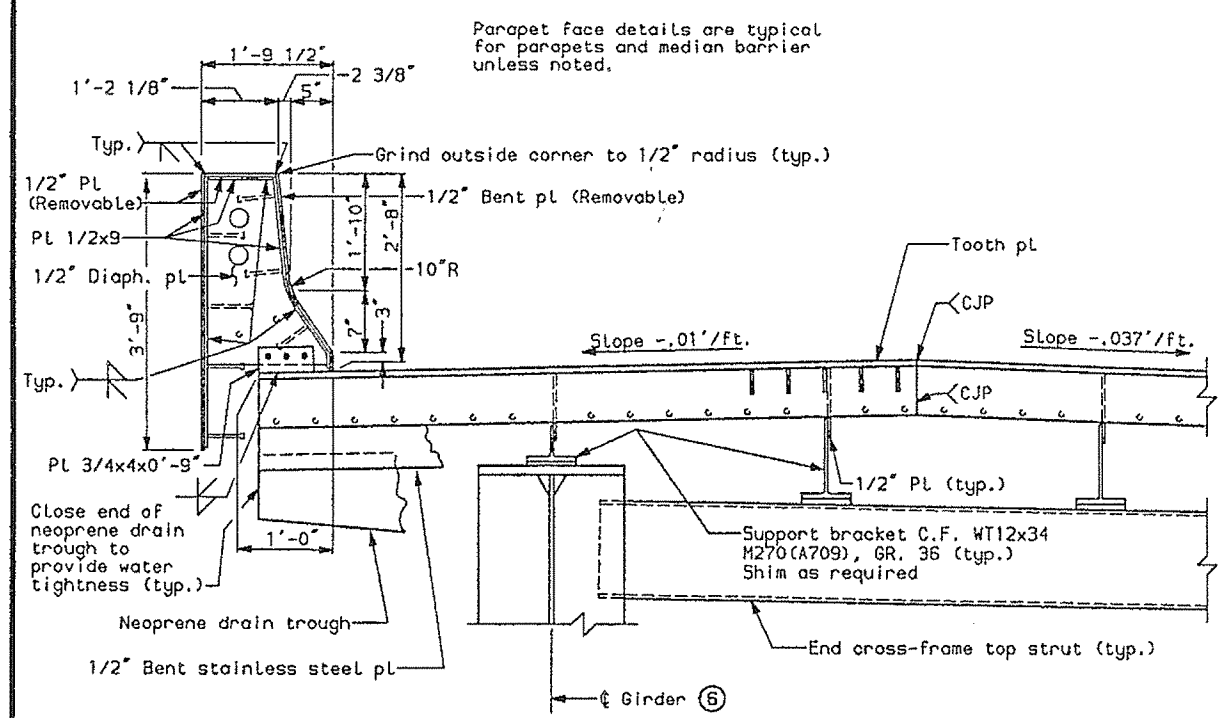
(For details not shown, see section A-A)

NORTH APPROACH

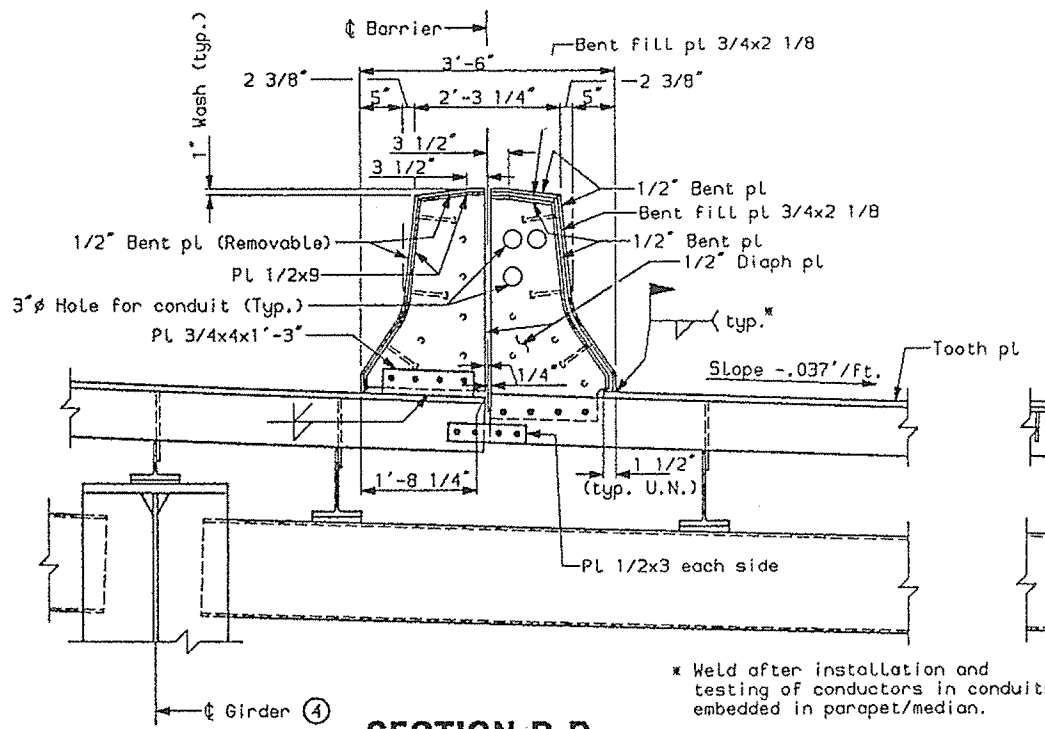
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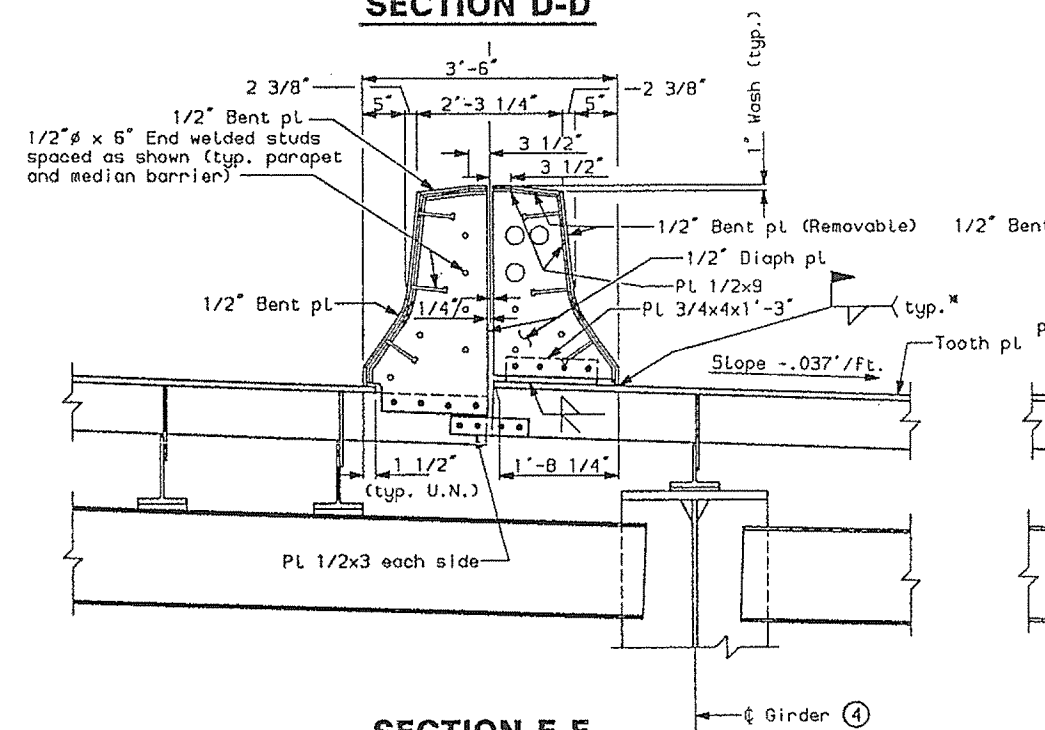
FINGER JOINT
PIER 4N



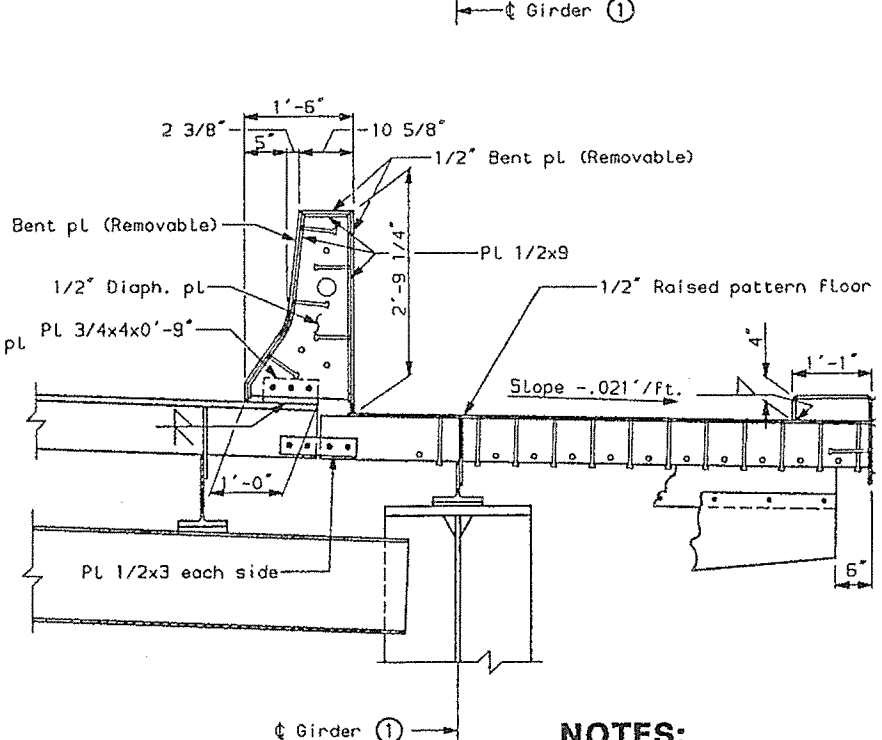
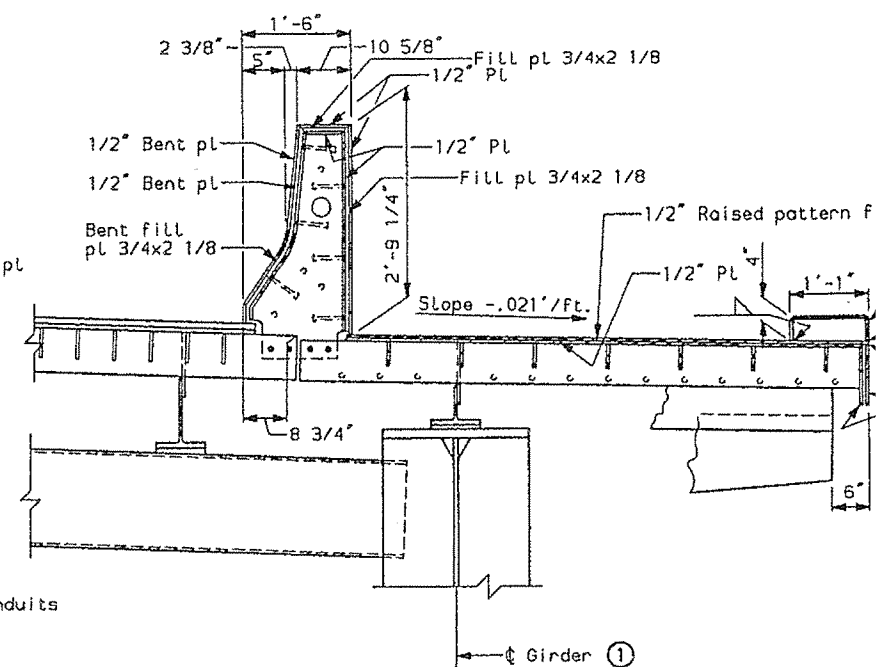
SECTION F-F (Section F'-F' Similar)



SECTION D-D

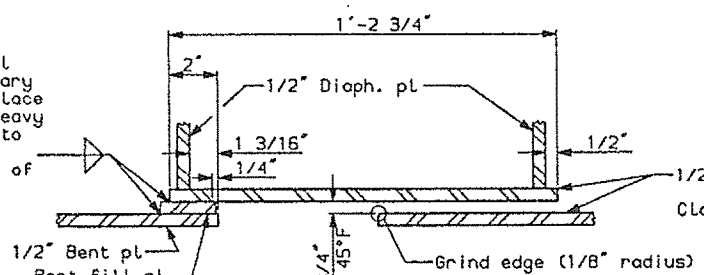


SECTION E-E

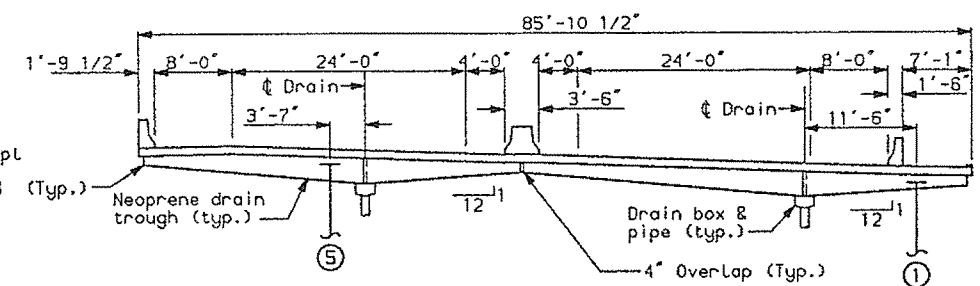


NOTES:

All structural steel shall GR. 50W unless noted.



SECTION G-G



ELEVATION - DRAIN TROUGH LAYOUT
(Looking ahead station)

NORTH APPROACH

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FINGER JOINT

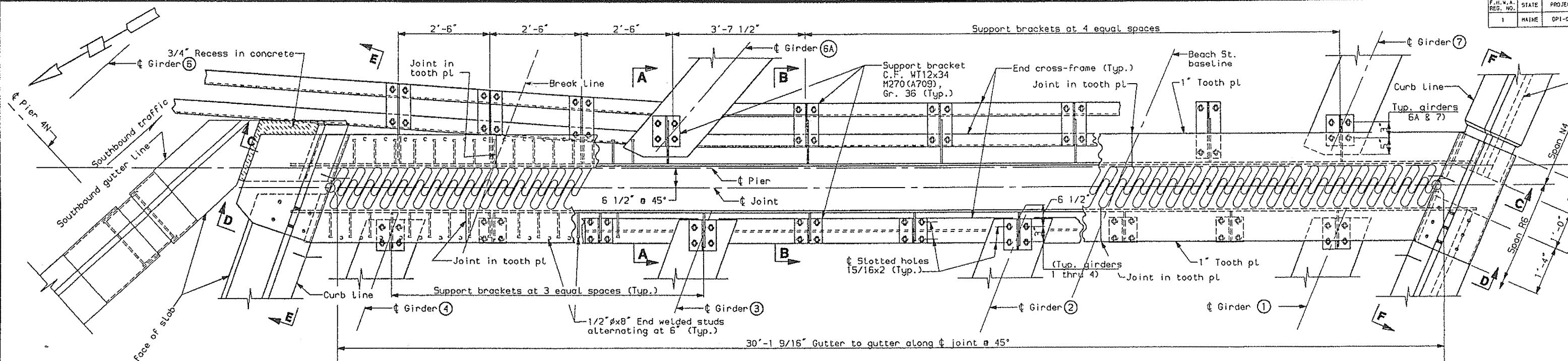
PIER 4N

SHEET 78 OF 156, AUGUSTA,

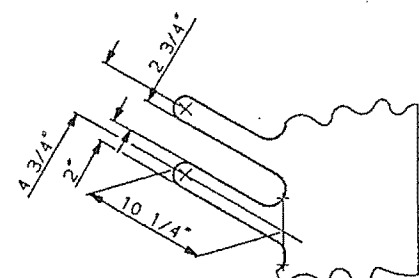
DATE	BY	DESIGN	CHECKED	REVISION	FIELD CHANGES
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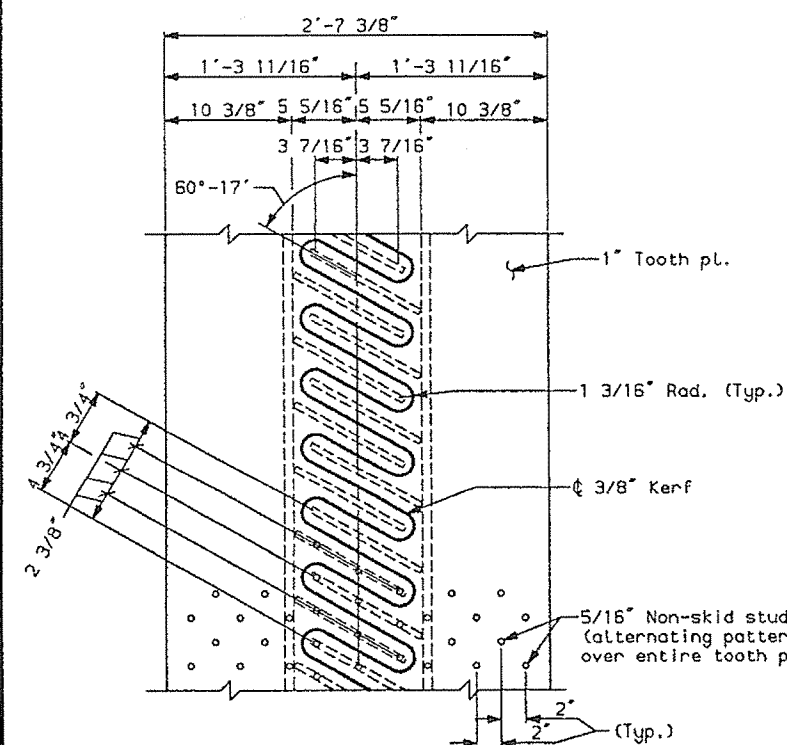
dam. 4n. 2



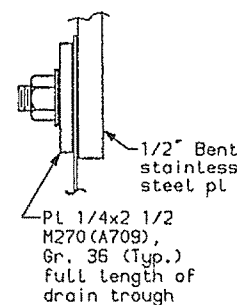
PLAN



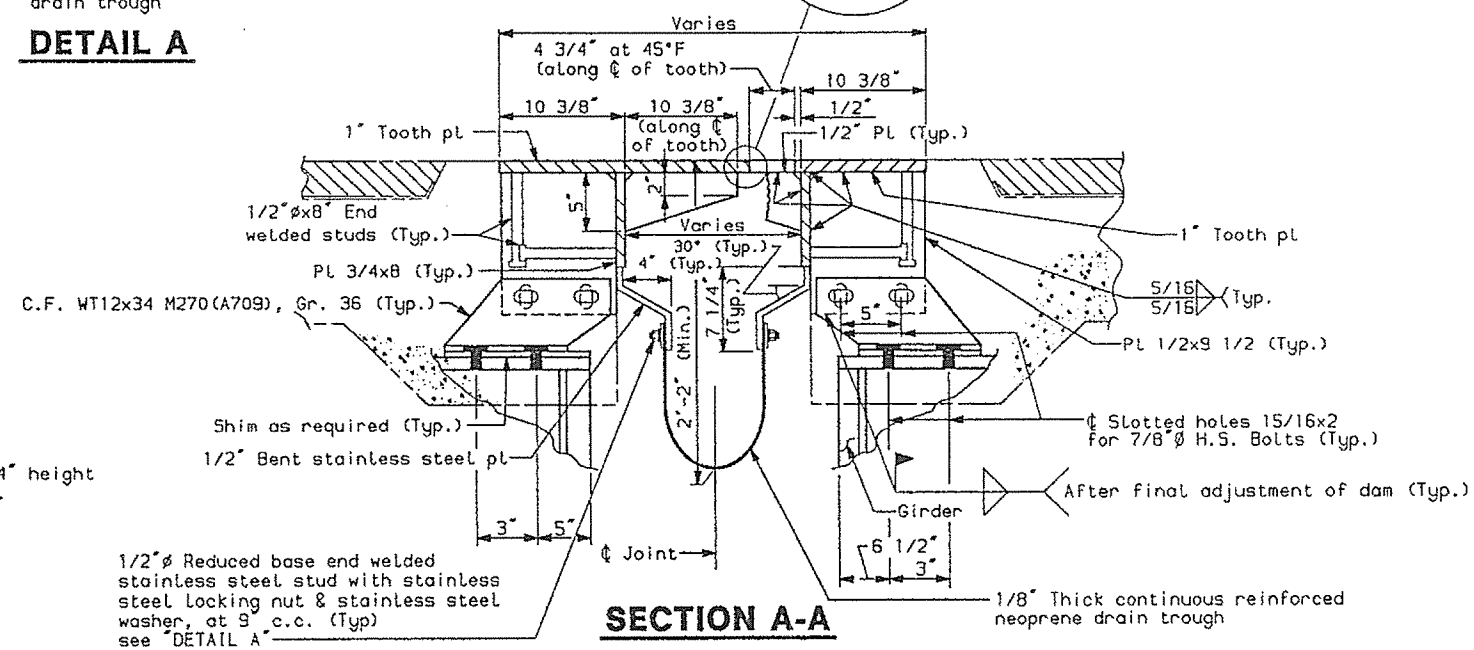
TOOTH DETAIL



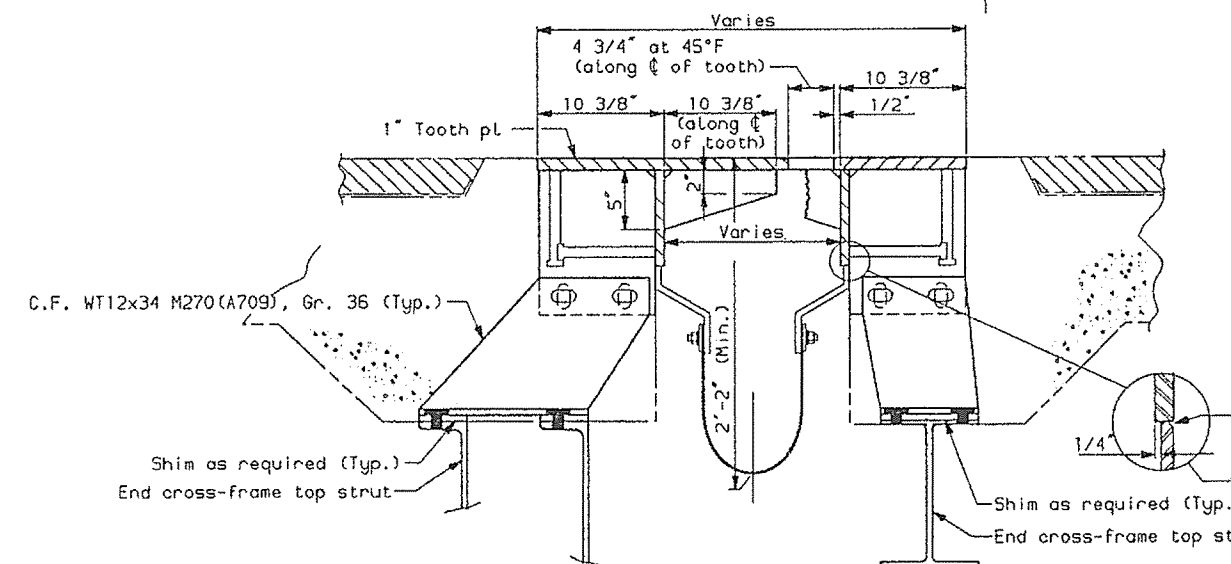
CUTTING DETAIL



DETAIL A



SECTION A-A



SECTION B-B

(For details not shown, see section A-A)

Degrees (F)	Opening
120	1 3/4"
105	2 3/8"
90	2 15/16"
75	3 9/16"
60	4 1/8"
45	4 3/4"
30	5 3/8"
15	5 15/16"
0	6 9/16"
-15	7 1/8"
-30	7 3/4"

NOTES:

All dimensions and views shall be at room temperature at 45°F.
All structural steel shall be A36 or 50W unless noted.
Stainless steel shall conform to AISI type 316.

NORTH APPROACH

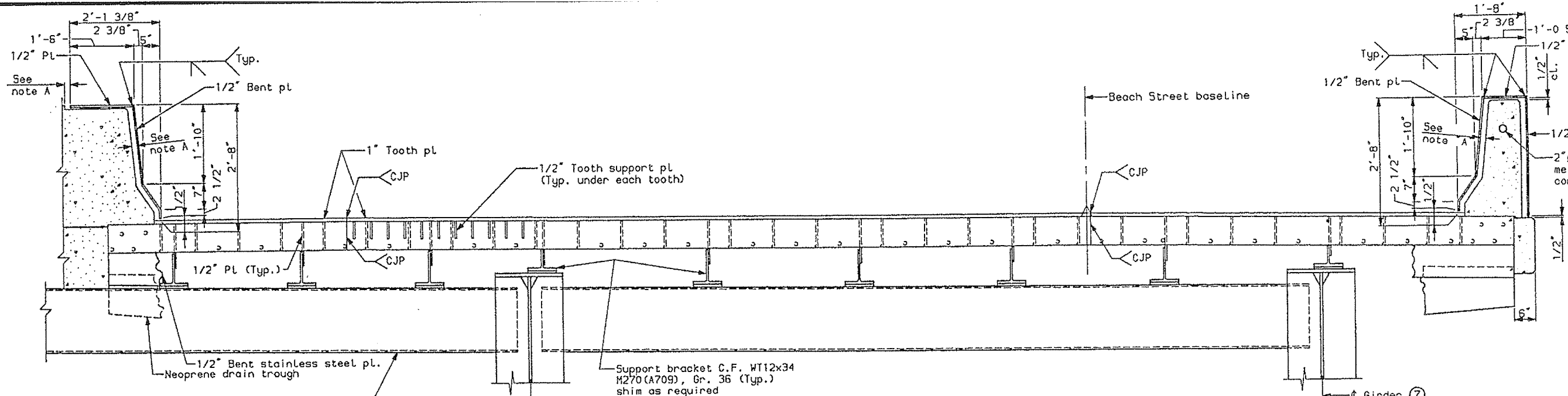
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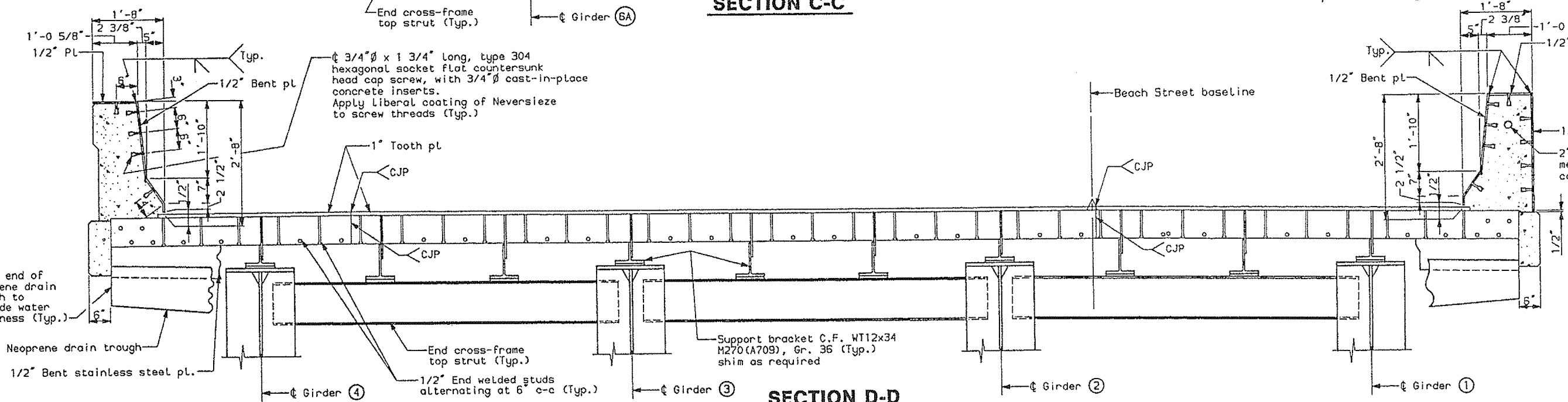
OVER FORE
CUMBERLAND

FINGER JOINT
PIER 6R

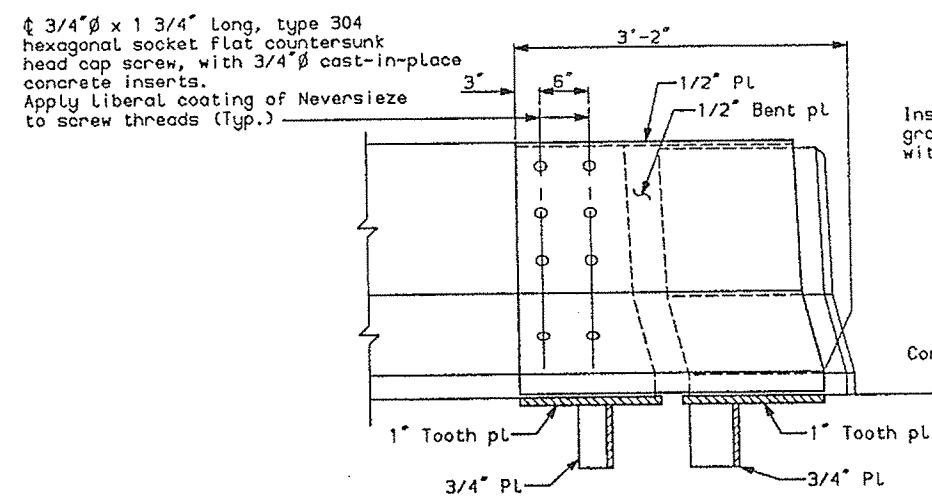
SHEET 79 OF 156 AUGUSTA,



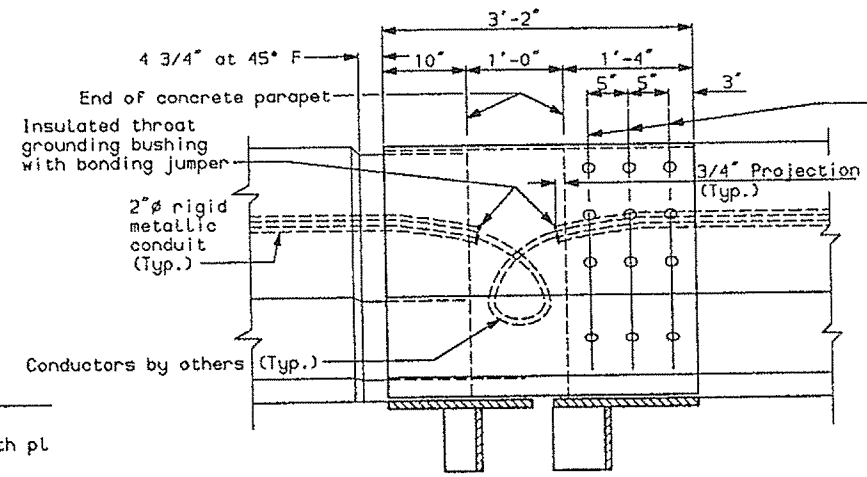
SECTION C-C



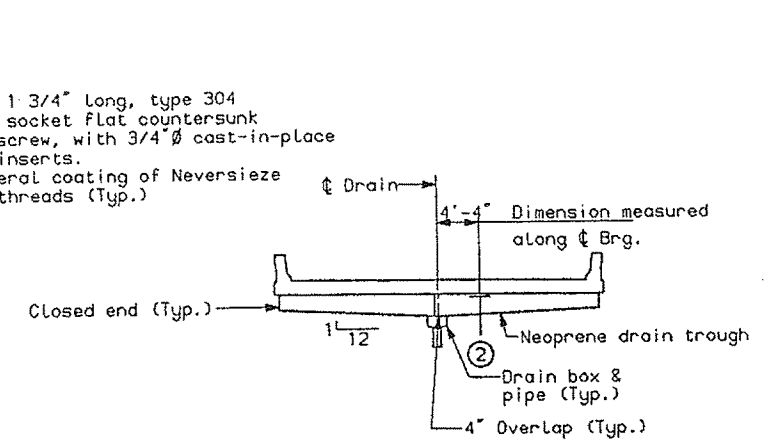
SECTION D-D



SECTION E-E



SECTION F-F



ELEVATION - DRAIN TROUGH LAYOUT

(Girders shown for span R6 Looking ahead station)

Note "A" 1 5/8" cl. at 45°
Adjust the clear between the bent parapet for erect For the western p increase the clea 5/16" for every 1 or decrease the c 5/16" for every 1 than the 1 5/8" c temperature shown
The adjustment is for the eastern p

NOTES:

ALL dimensions and views temperature at 45°F.
All structural steel shall Gr. 50W unless noted.

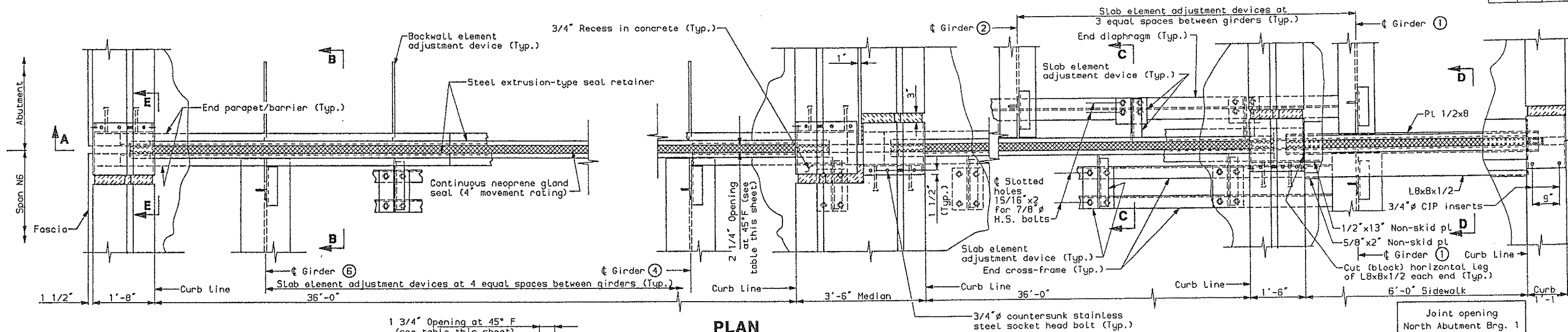
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FINGER JOIN
PIER 6I

SHEET 80 OF 156 AUGUST

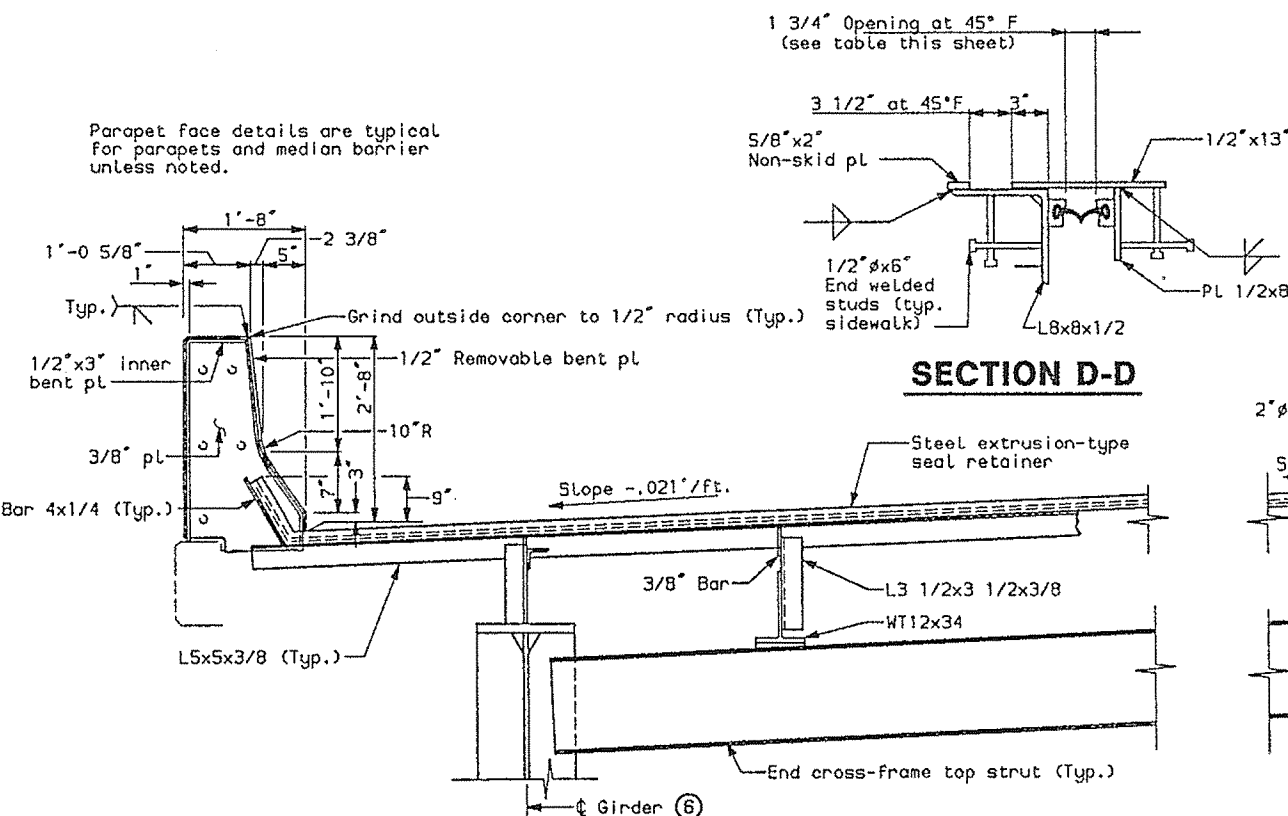
DATE	BY	DATE	BY
6-94	SLH	6-94	JAR
DESIGN-DETAILED	HCI	CHECKED	JAR
REVISION		FIELD CHANGES	
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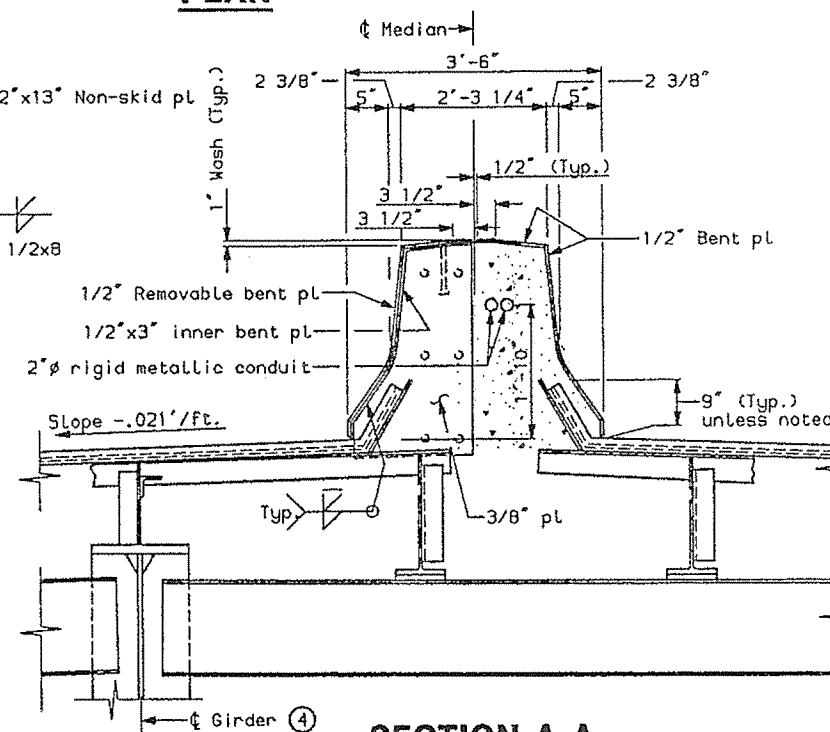
PLAN

Joint opening North Abutment Brg. 1	
Degrees (F)	Opening
120	7/8"
105	1 1/8"
90	1 7/16"
75	1 11/16"
60	2"
45	2 1/4"
30	2 1/2"
15	2 13/16"
0	3 1/16"
-15	3 3/8"
-30	3 5/8"

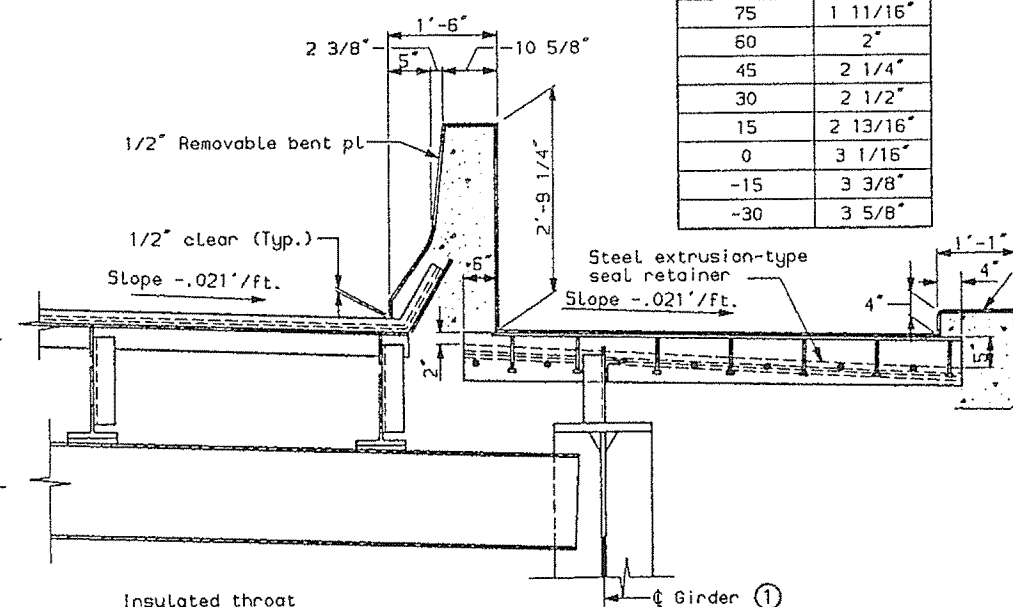
Parapet face details are typical for parapets and median barrier unless noted.



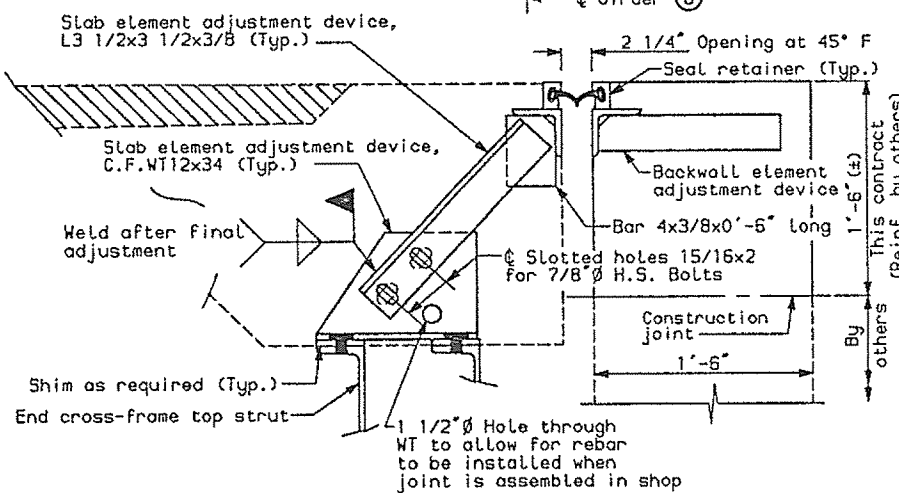
SECTION D-D



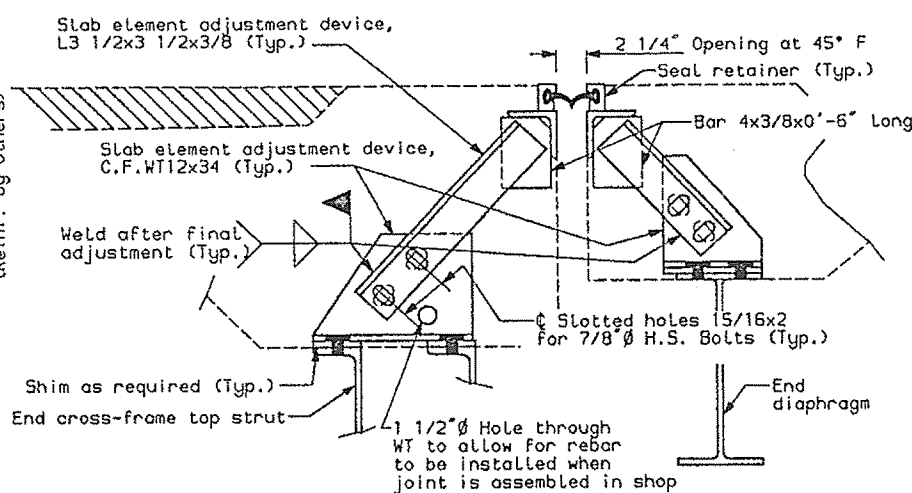
SECTION A-A



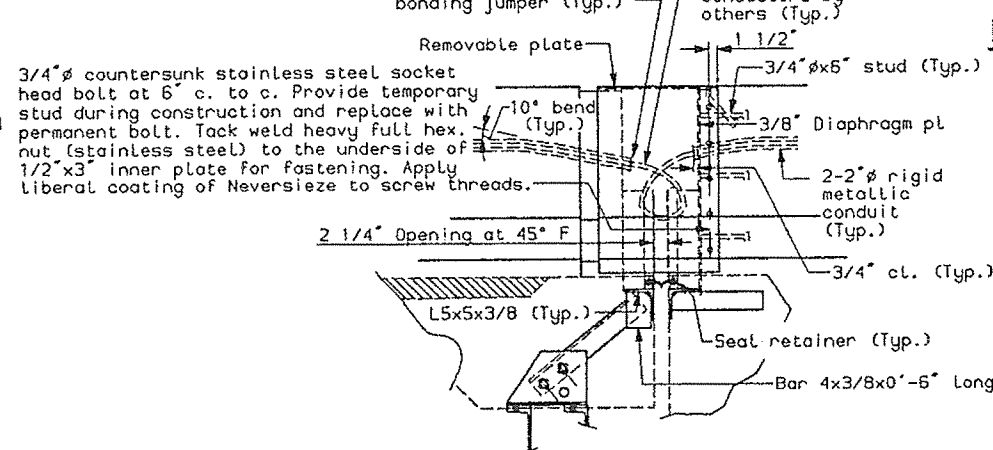
SECTION E-E



SECTION B-B



SECTION C-C



NOTES:

For additional details, see
DETAILS BD 302-93.
All retainer and support
details on this sheet show
M270 (A709), Gr. 36 unless

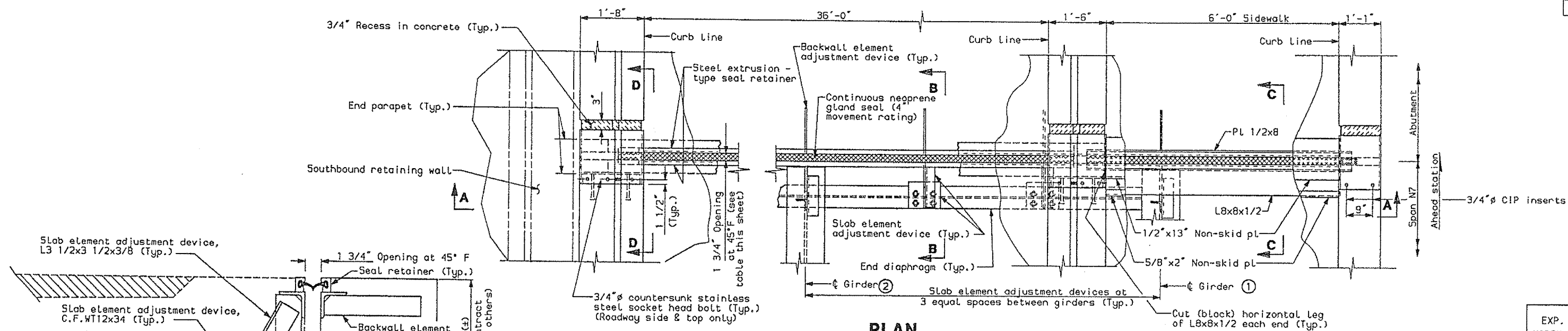
NORTH APPROA

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DEPARTMENT OF TRAI

**PORTLAND - S. POR
OVER FORE
CUMBERLAND**

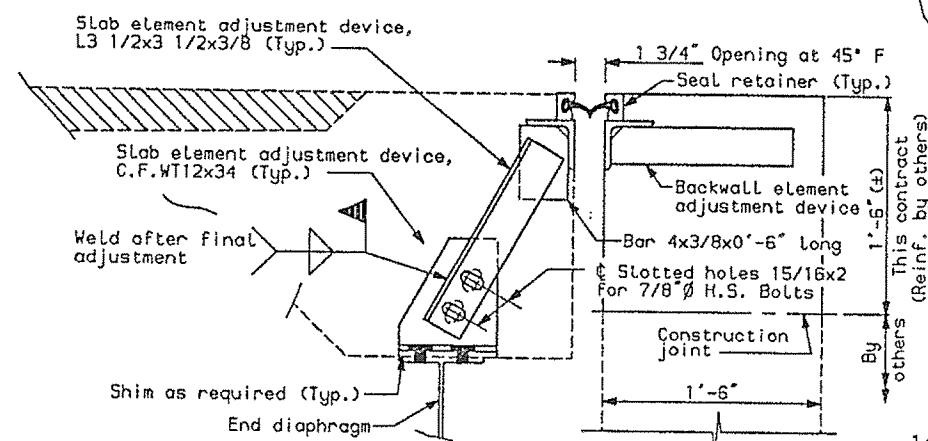
**GLAND SEAL
NORTH ABUTM**

SHEET 81 OF 156 AUGUSTA

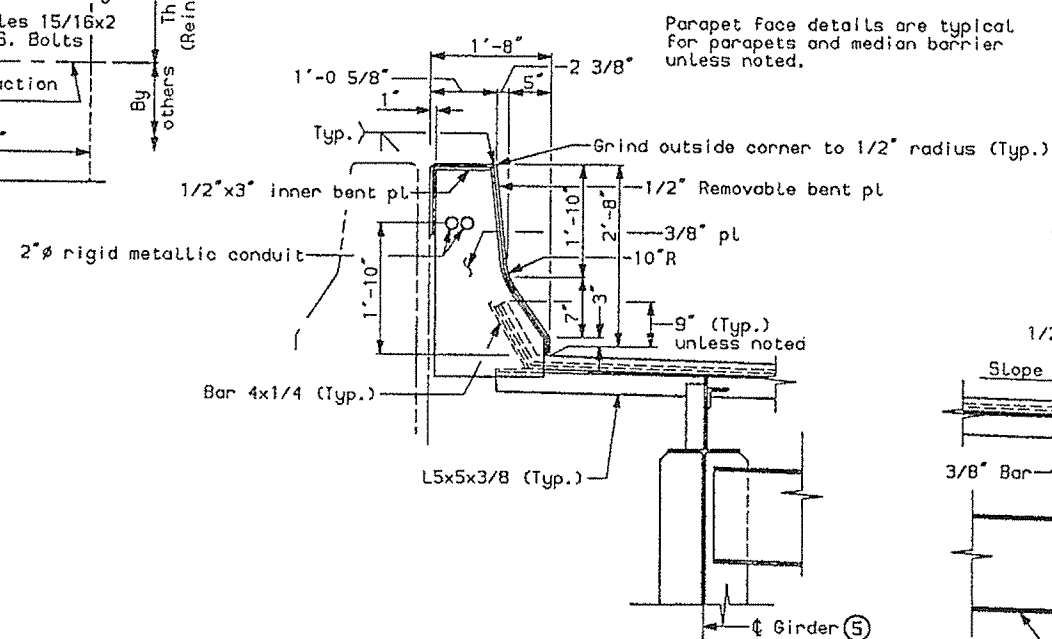


PLAN

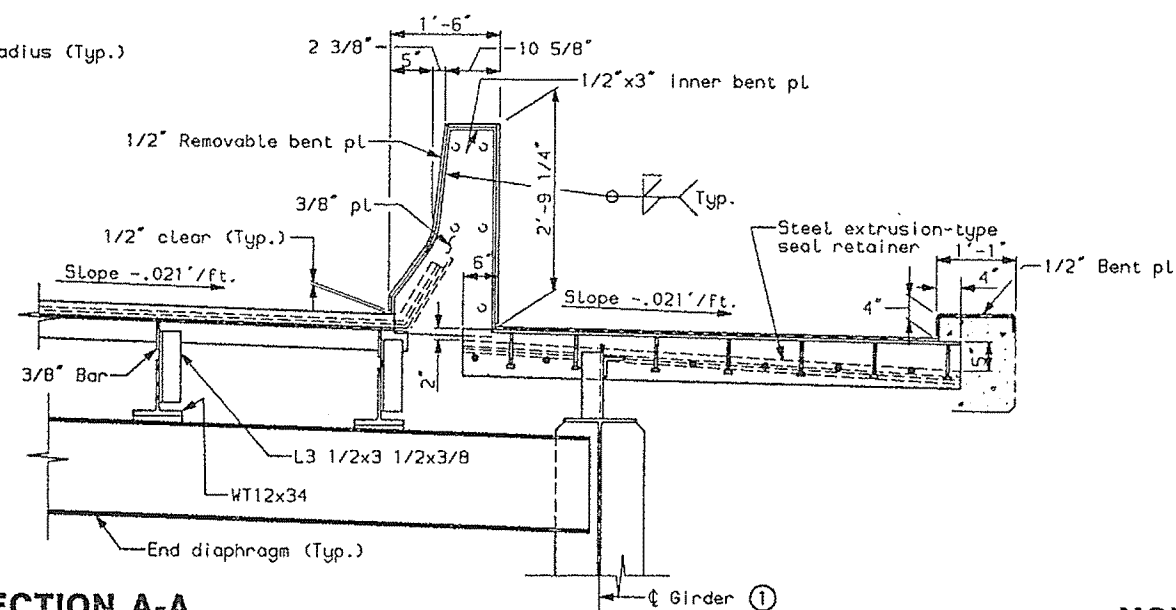
EXP. JOINT OPENING NORTH ABUTMENT BRG.	
Degrees (F)	Opening
120	1 7/16"
105	1 1/2"
90	1 9/16"
75	1 5/8"
60	1 11/16"
45	1 3/4"
30	1 13/16"
15	1 7/8"
0	1 15/16"
-15	2"
-30	2 1/16"



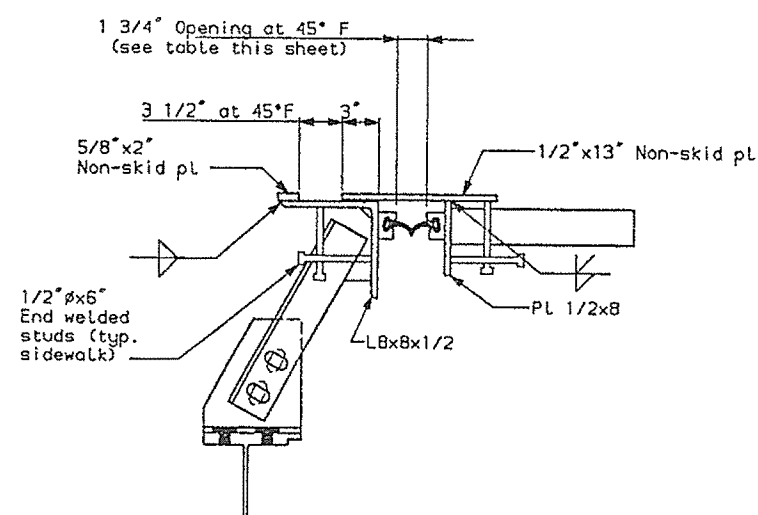
SECTION B-B



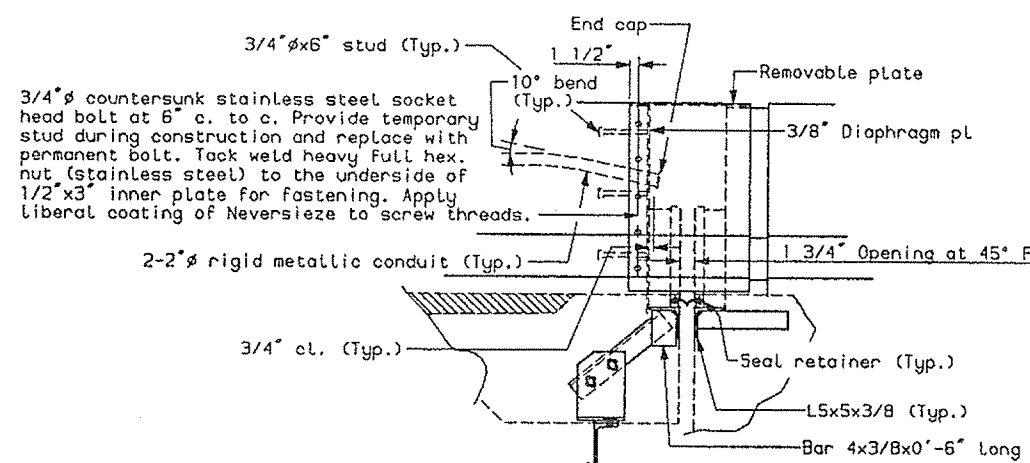
SECTION A-A



SECTION C-C



SECTION D-D



NOTES:

For additional details, see
DETAILS BD 302-93.
All retainer and support str
details on this sheet shall
M270(A709), Gr. 36 unless no

NORTH APPROACH

STATE OF MAI
DEPARTMENT OF TRANS

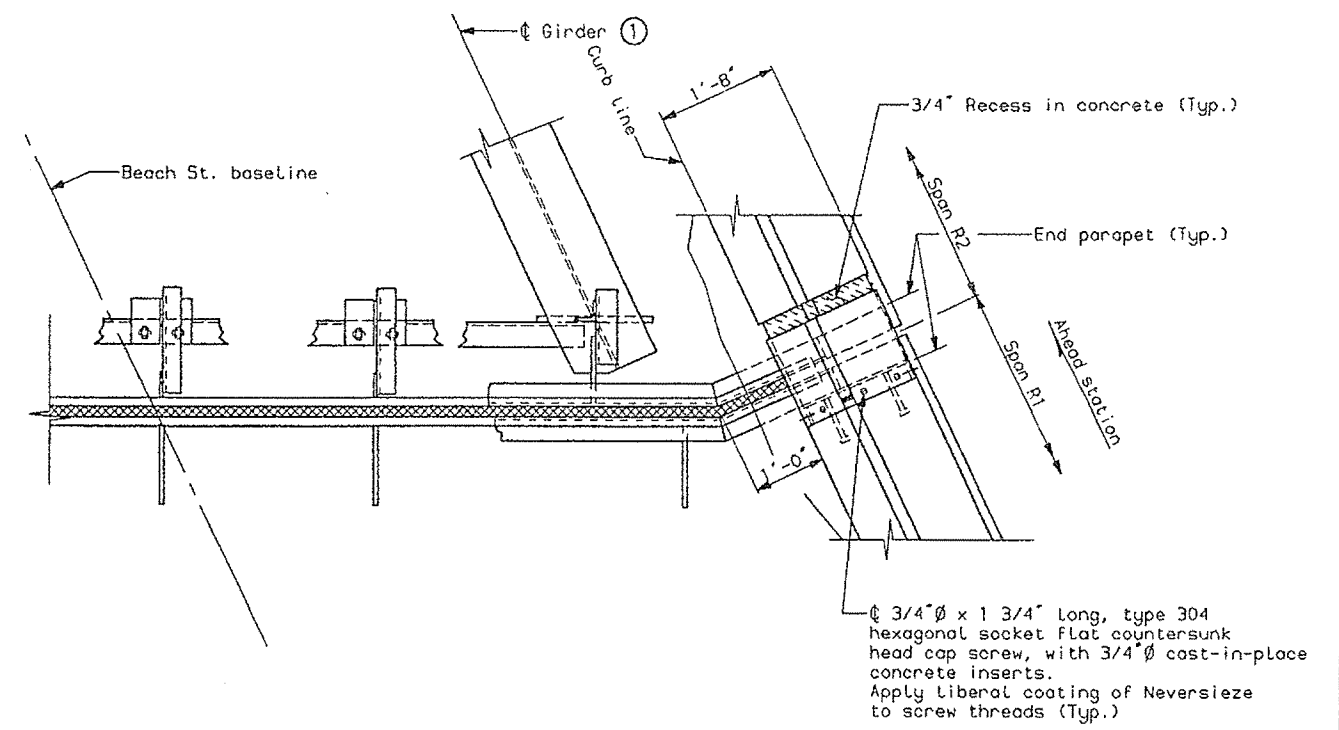
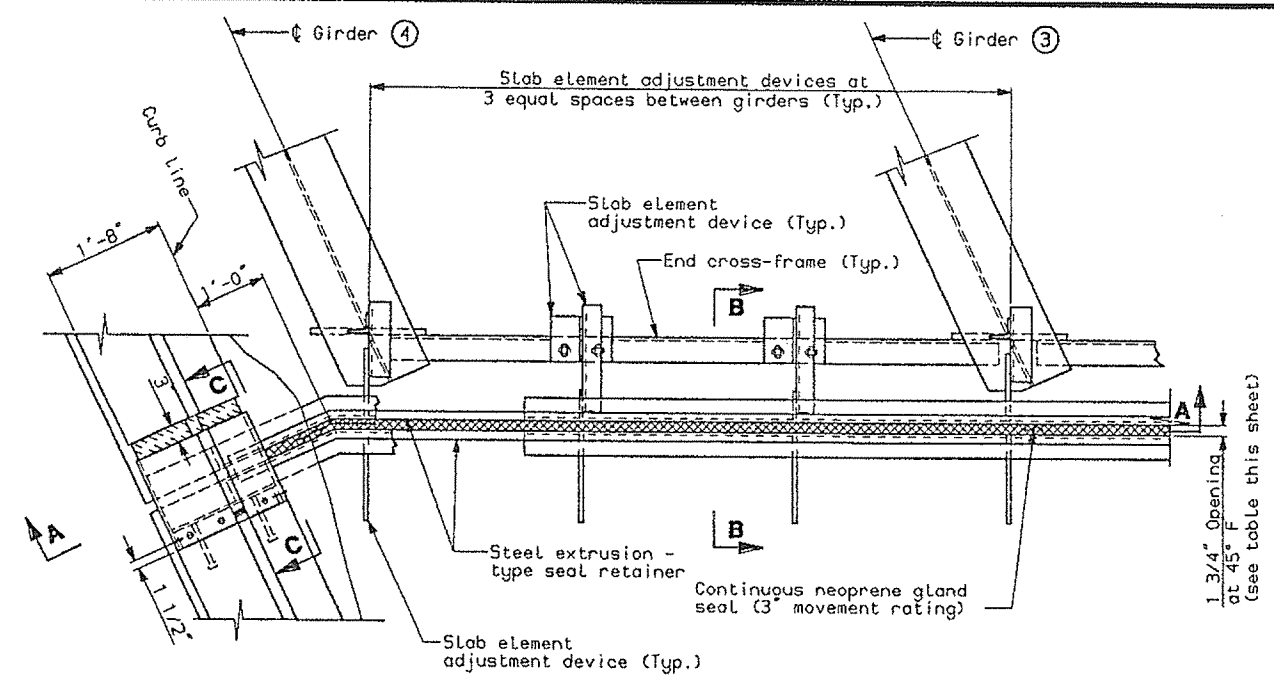
PORTLAND - S. PORTL

OVER FORE R

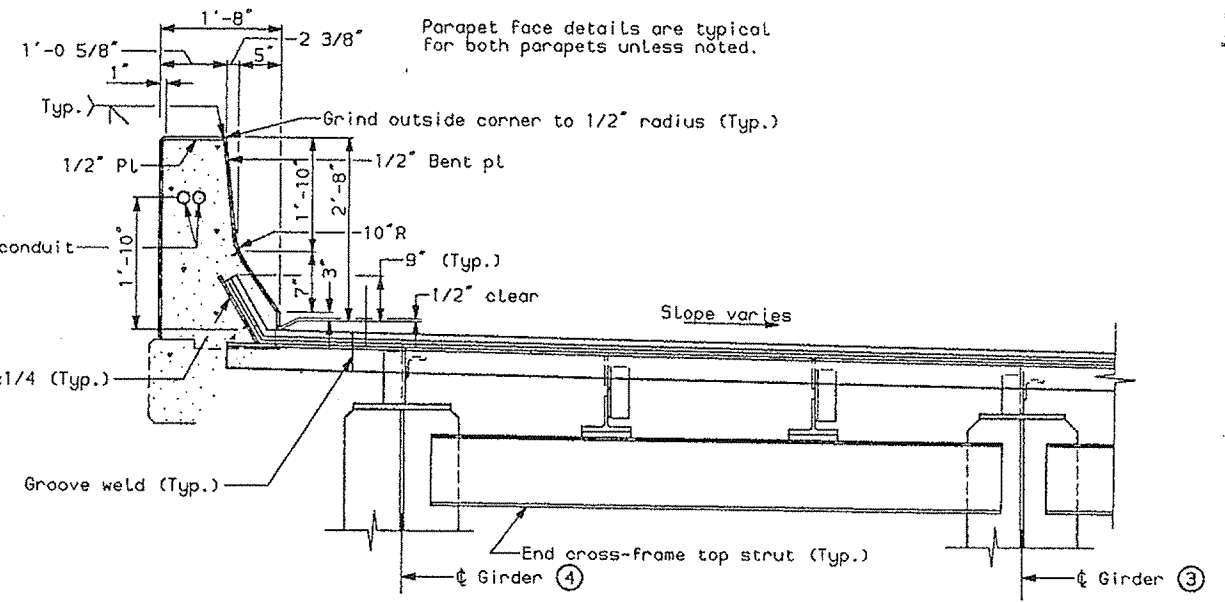
CUMBERLAND C

GLAND SEAL D

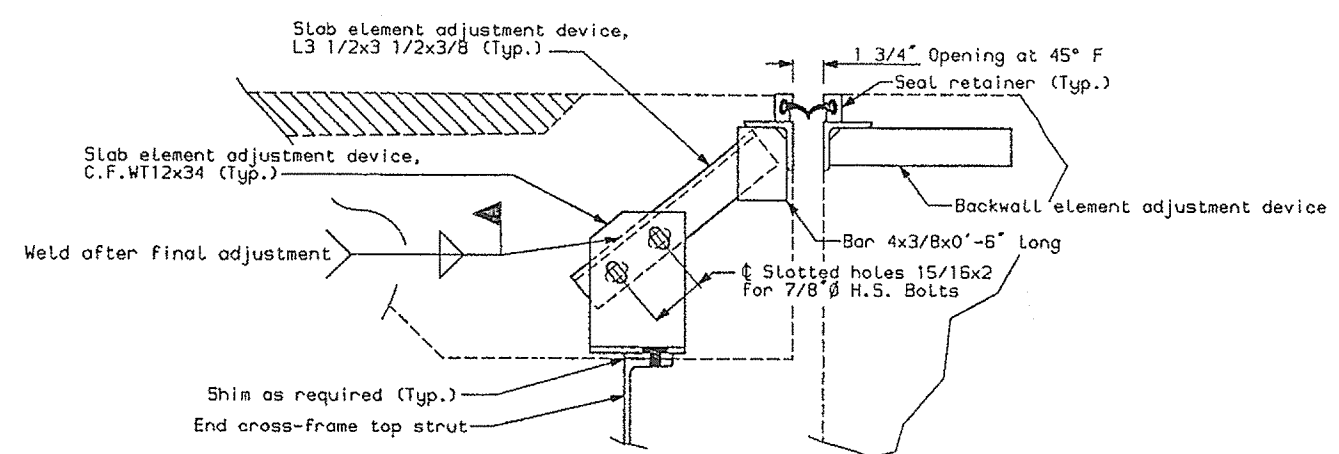
NORTH ABUTMENT



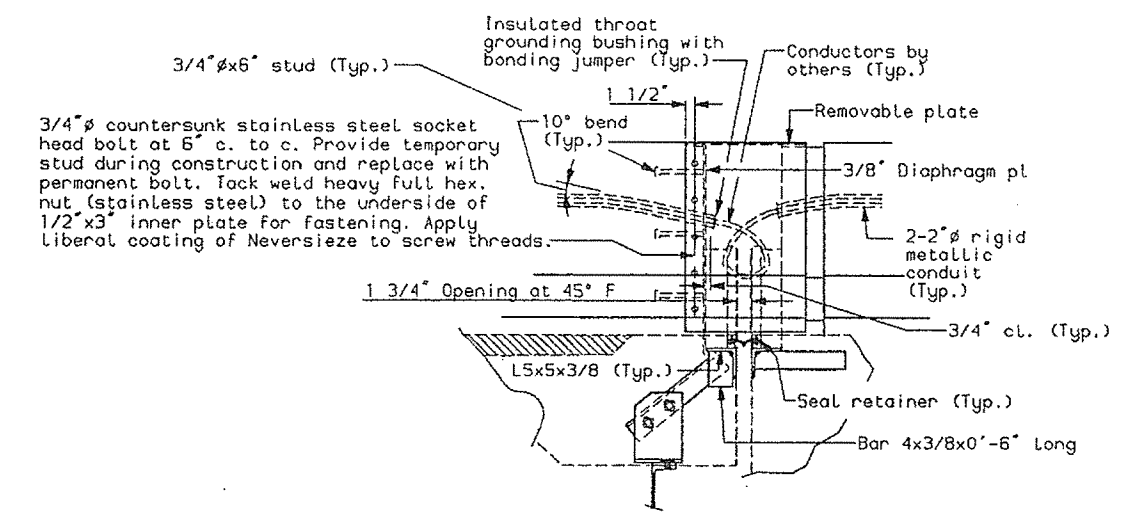
PLAN



SECTION A-A



SECTION B-B



SECTION C-C

EXP. JOINT OPE	
PIER IR	
Degrees (F)	Ope
120	1 1
105	1 1
90	1
75	1 1
60	1 5
45	1 3
30	1 7
15	2
0	2 1
-15	2 1
-30	2 3

NOTES:

For additional details, see S
DETAILS BD 302-93.
All retainer and support stru
details on this sheet shall be
M270(A709), Gr. 36 unless note
For additional details, see (L
LAYOUT - GATES AND SIGNALS - I

NORTH APPROAC

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DEPARTMENT OF TRANS

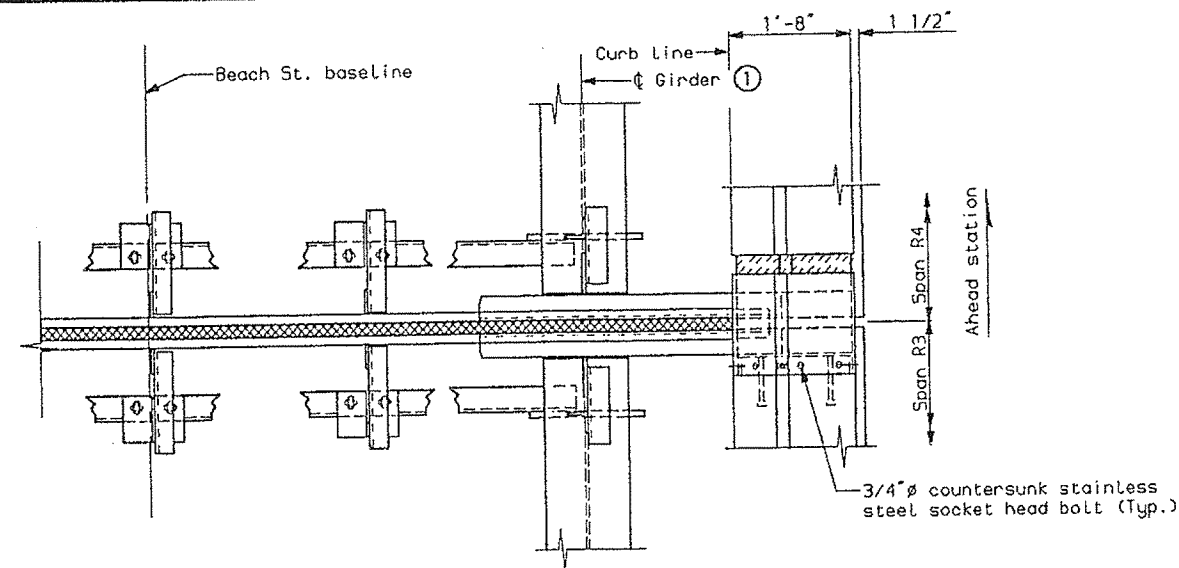
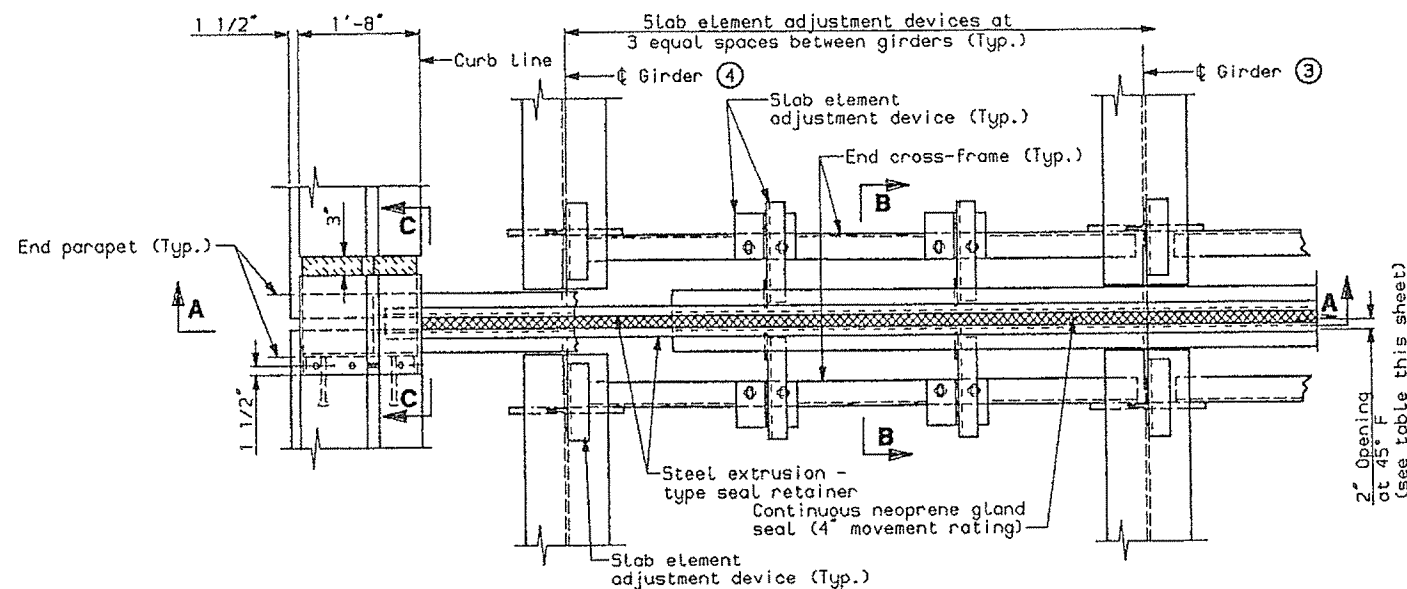
**PORTLAND - S. PORT
OVER FORE F
CUMBERLAND C**

**GLAND SEAL I
PIER 11**

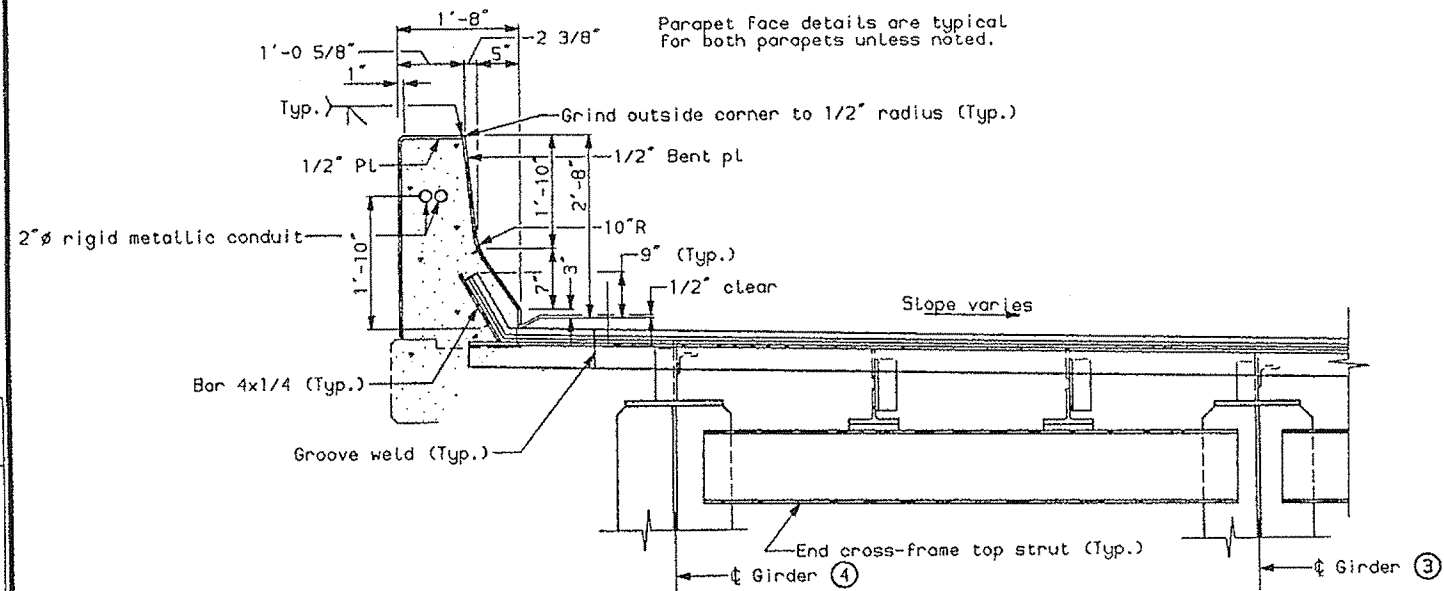
DATE	BY	CHK	DESIGN-DETAILED	REVISION	FIELD CHANGES
6-94	EAR	MCI	JAR		
6-94	JAR				

PLANS

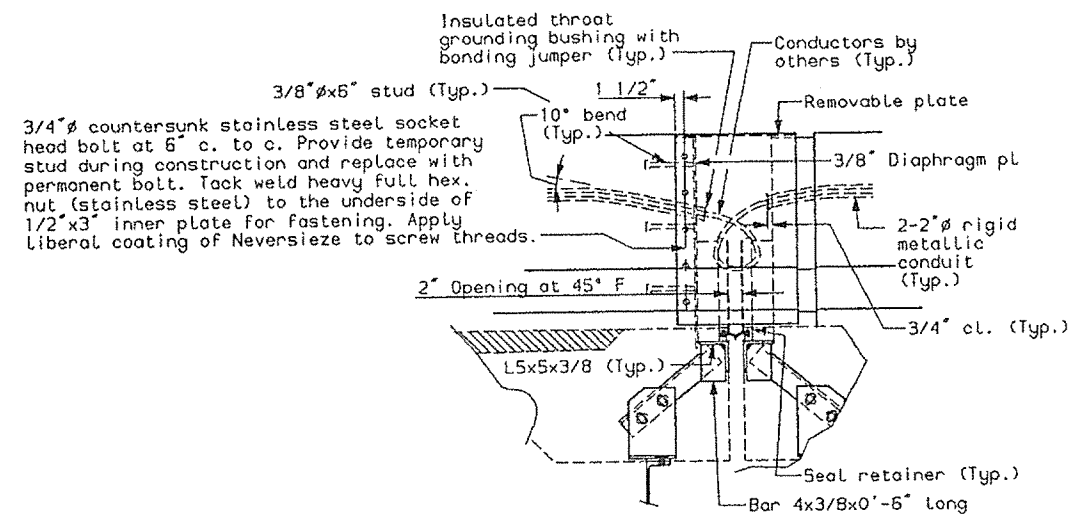
Joint.r1



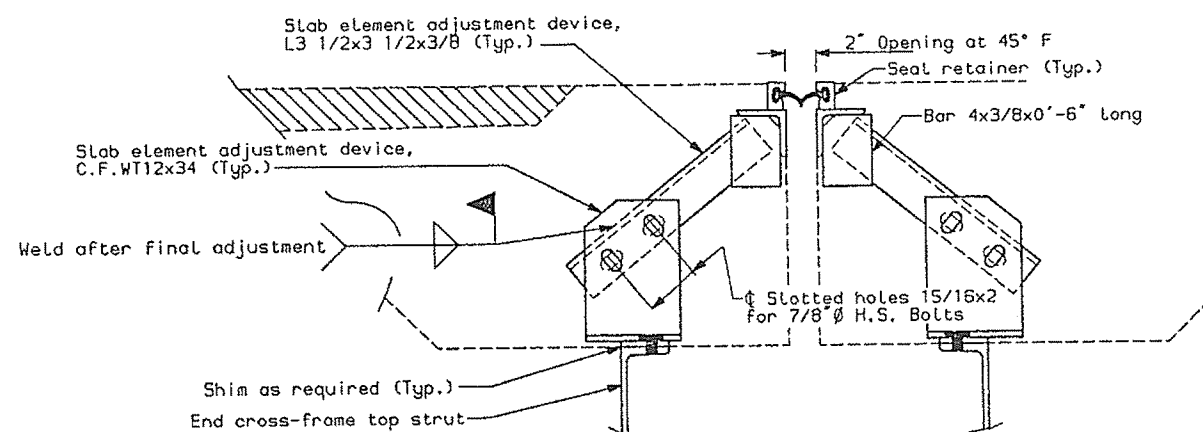
PLAN



SECTION A-A



SECTION C-C



SECTION B-B

EXP. JOINT OPENING PIER 3R	
Degrees (F)	Openin
120	1/2"
105	13/16"
90	1 1/8"
75	1 7/16"
60	1 11/16"
45	2"
30	2 5/16"
15	2 5/8"
0	2 7/8"
-15	3 3/16"
-30	3 1/2"

NOTES:

For additional details, see DETAILS BD 302-93.
All retainer and support st details on this sheet shall be M270 (A709), Gr. 36 unless no For additional details, see LAYOUT - GATES AND SIGNALS -

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRAN

PORTLAND - S. PORT
OVER FORE
CUMBERLAND

GLAND SEAL
PIER 3

SHEET 84 OF 156 AUGUSTA,

PHD	DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
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62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
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68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
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73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
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78	78	78	78	78
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80	80	80	80	80
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85	85	85	85	85
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89	89	89	89	89
90	90	90	90	90
91	91	91	91	91
92	92	92	92	92
93	93	93	93	93
94	94	94	94	94
95	95	95	95	95
96	96	96	96	96
97	97	97	97	97
98	98	98	98	98
99	99	99	99	99
100	100	100	100	100

POT BEARING SCHEDULE

Pier Location		North Bascule	1N	2N		3N	4N (Back sta.)	6R (Ahd. sta.)	4N (Ahd. sta.)	5N		No. Abut. Brg. 1
Bearing type		Expansion	Expansion	Fixed	Expansion	Expansion	Expansion	Expansion	Expansion	Fixed	Expansion	Expansion
Quantity		7	7	5	2	7	6	2	6	4	2	6
Design vertical service loads	Dead	372 kips	946 kips	787 kips		1010 kips	323 kips	321 kips	343 kips	1249 kips		314 kips
	Live	123 kips	189 kips	188 kips		193 kips	119 kips	119 kips	137 kips	227 kips		110 kips
Design horizontal seismic load		209 kips	375 kips	586 kips		575 kips	315 kips	315 kips	348 kips	718 kips		434 kips
Design design rotation		0.015 rad	0.015 rad	0.015 rad		0.015 rad	0.015 rad	0.015 rad	0.015 rad	0.015 rad		0.015 rad
Total temperature movement (in.) (one way)		2.30	1.28	—		1.27	2.53	2.53	1.40	—		2.10
Calculated seismic movement (in.) (one way)		4.0	4.0	—		4.0	4.0	4.0	1.5	—		1.5
Delta (See note "A")		5/16"	—	—		—	1/2"	1/2"	9/16"	—		9/16"
Pressure on PTFE *		3438 psi	3482 psi	—	3481 psi	3474 psi	3447 psi	3447 psi	3445 psi	—	3477 psi	3456 psi
Pressure on elastomer *		3197 psi	3317 psi	3481 psi	3369 psi	3314 psi	3192 psi	3192 psi	3199 psi	3477 psi	3386 psi	3195 psi
Allowable coefficient of friction on PTFE/stainless steel, at min. load		0.04	0.04	0.04		0.04	0.04	0.04	0.04	0.04		0.04
"DT" (See notes)		0.307	0.170	—		0.167	0.331	0.272	0.186	—		0.187
Surface coating requirements & specifications		(See specifications)										

Pier Location		1R (Ahd. sta.)	2R	3R (Back sta.)	3R (Ahd. sta.)	4R	5R	6R (Back sta.)
Bearing type		Expansion	Fixed	Expansion	Expansion	Expansion	Fixed	Expansion
Quantity		4	4	4	4	4	4	4
Design vertical service loads	Dead	84 kips	304 kips	102 kips	106 kips	213 kips	206 kips	112 kips
	Live	64 kips	109 kips	69 kips	79 kips	85 kips	83 kips	86 kips
Design horizontal seismic load		72 kips	112 kips	41 kips	32 kips	59 kips	91 kips	42 kips
Design design rotation		0.015 rad	0.015 rad	0.015 rad	0.015 rad	0.015 rad	0.015 rad	0.015 rad
Total temperature movement (in.) (one way)		0.70	—	0.71	0.97	0.52	—	0.54
Calculated seismic movement (in.) (one way)		0.88	—	0.88	1.80	1.80	—	1.80
Delta (See note "A")		1/8"	—	1/8"	1/16"	—	—	1/16"
Pressure on PTFE *		3465 psi	—	3402 psi	3461 psi	3442 psi	—	3490 psi
Pressure on elastomer *		3039 psi	3434 psi	3014 psi	3077 psi	3136 psi	3419 psi	3113 psi
Allowable coefficient of friction on PTFE/stainless steel, at min. load		0.04	—	0.04	0.04	0.04	—	0.04
"DT" (See notes)		0.094	—	0.093	0.101	0.058	—	0.072
Surface coating requirements & specifications		(See specifications)						

* 3500 psi maximum allowable, 700 psi minimum allowable

NOTE A:

The bearing details are shown for a normal temperature of 45° F.. It is anticipated that the girder bottom flange at the location listed in the table will move the distance, Delta, indicated away from the fixed bearings due to placement of the superstructure concrete.
No separate payment will be made for resetting bearing to the final position if an adjustment is required.

NOTES:

- ALL structural steel shall be A270 (A709), Gr. 50, unless noted.
- Vertical group loads are not factored.
- Horizontal group loads are factored.
- Each bearing with transverse restraint is designed for 50% of the total horizontal load.
- The seismic design loads are for the connection between the superstructure and substructure.
- "DT" is the distance in inches between the centerlines of masonry and sole plates. "DT" is measured perpendicular to the transverse centerline of the plate.
- "DT" = 0.00" at 45°F. Adjust "DT" by multiples of the value shown in the table for all multiples of 10 degree F. temperature variation above or below 45° F.
- "DT" is measured toward the fixed bearing for temperatures below 45° F., and away from the fixed bearing for temperatures above 45° F.

BEARING SEAT ELEVATIONS

Location	Girder number							
	1	2	3	4	5	6	6a	7
North bascule pier	70.14	70.23	70.39	70.47	70.32	70.23	—	70.26
Pier 1N	67.98	68.04	68.19	68.30	68.47	68.63	—	68.73
Pier 2N	63.12	63.60	64.15	64.58	65.14	65.70	—	65.89
Pier 3N	58.38	58.76	59.32	59.75	60.33	60.79	—	60.94
Pier 4N (back)	54.08	54.47	55.03	55.47	55.98	56.43	—	—
Pier 4N (ahead)	53.42	53.81	54.35	54.78	55.33	55.80	—	—
Pier 5N	48.00	48.42	48.90	49.28	49.76	50.01	—	—
North Abutment Bearing 1	46.35	46.49	46.82	47.06	47.37	47.65	—	—
North Abutment Bearing 2	47.54	53.22	53.41	53.59	53.78	—	—	—
North Abutment Bearing 3	52.62	52.79	52.98	53.17	53.36	—	—	—
Pier 1R (ahead)	37.99	38.42	38.83	39.20	—	—	—	—
Pier 2R	44.54	44.74	44.93	45.09	—	—	—	—
Pier 3R (back)	49.62	49.96	50.27	50.55	—	—	—	—
Pier 3R (ahead)	50.18	50.50	50.80	51.07	—	—	—	—
Pier 4R	53.57	53.89	54.20	54.48	—	—	—	—
Pier 5R	57.11	57.43	57.74	58.02	—	—	—	—
Pier 6R (back)	60.78	60.89	60.93	60.95	—	—	—	—
Pier 6R (ahead)	—	—	—	—	—	56.63	56.44	—

NORTH APPROACH

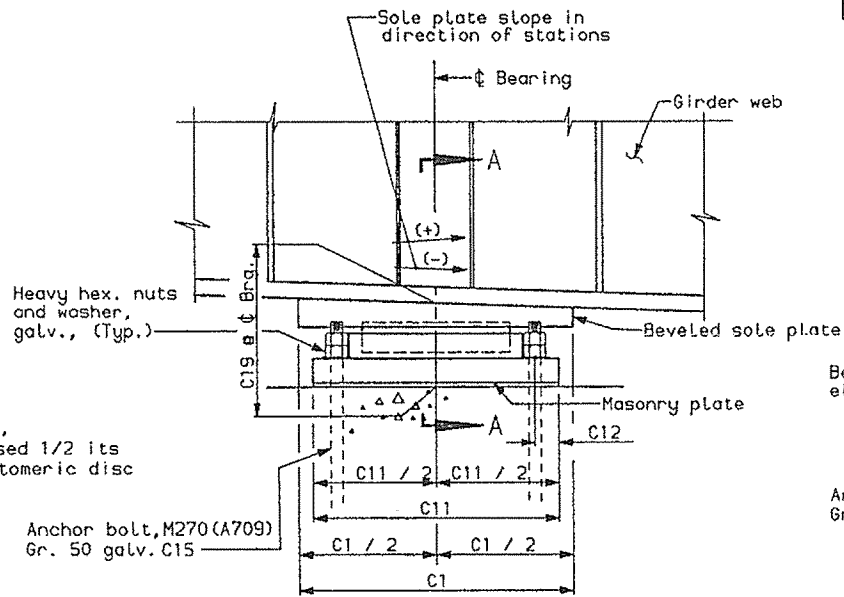
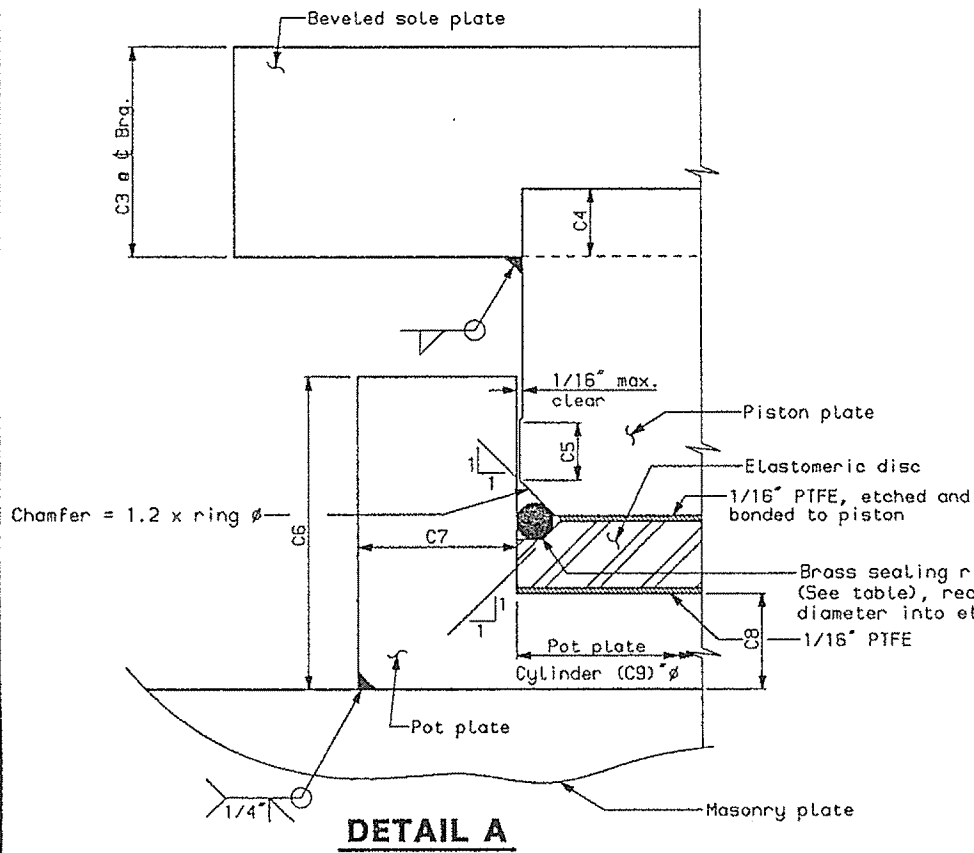
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY

POT BEARING
DETAILS

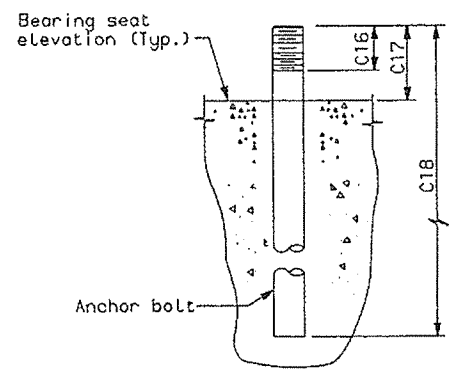
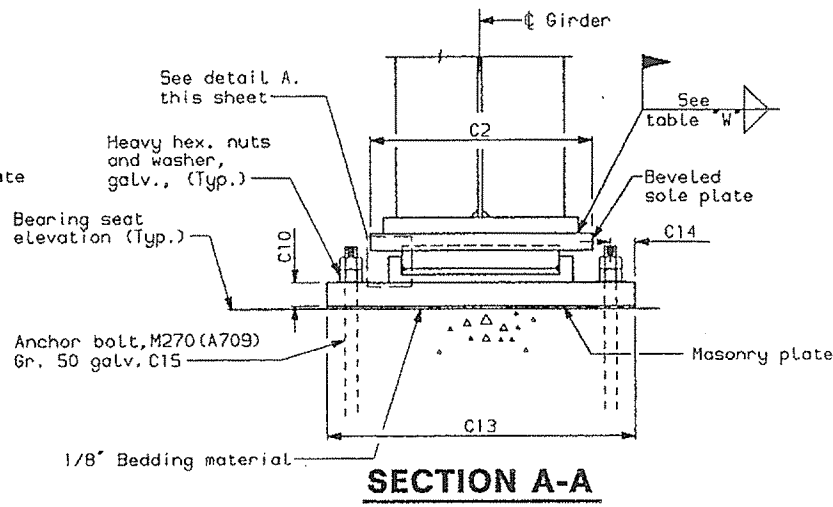
FIXED BEARINGS

Location	Quantity	Beveled sole plate				Slope %	Piston plate		Elastomeric disc	Brass seating ring	Pot plate				Masonry plate				Anchor bolt					
		C1	C2	C3	C4		H x ϕ	C5			L x W	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18
Pier 2N	5	2'-10"	2'-10"	2 1/4"	3/4"	-2.1502	3" x 18.845" ϕ	3/4"	1 3/8" x 18 7/8" ϕ	3/8" ϕ	1'-8 5/8" x 1'-8 5/8"	4"	7/8"	7/8"	18 7/8" ϕ	4"	2'-2"	3 1/2"	4'-2"	3 1/2"	3" ϕ	15"	18"	4'-0"
Pier 5N	4	3'-7"	4'-3"	2 1/4"	3/4"	-2.1040	3" x 23.220" ϕ	3/4"	1 5/8" x 23 1/4" ϕ	1/2" ϕ	2'-1 3/8" x 2'-1 3/8"	4 1/2"	1 1/16"	1 1/8"	23 1/4" ϕ	4 1/2"	2'-8"	3 1/2"	5'-7"	3 1/2"	3" ϕ	15"	18"	4'-0"
Pier 2R	4	1'-2"	2'-3"	1 3/4"	1/4"	+4.8488	1 5/8" x 12.345" ϕ	1/4"	7/8" x 12 3/8" ϕ	5/16" ϕ	1'-1 7/8" x 1'-1 7/8"	2 3/4"	3/4"	3/4"	12 3/8" ϕ	2 1/2"	1'-6"	2"	3'-2"	2"	1 1/2" ϕ	8"	9"	2'-0"
Pier 5R	4	1'-0 1/2"	2'-3"	1 3/4"	1/4"	+3.8532	1 1/2" x 10.345" ϕ	1/4"	3/4" x 10 3/8" ϕ	3/16" ϕ	0'-11 7/8" x 0'-11 7/8"	2 1/2"	3/4"	3/4"	10 3/8" ϕ	2"	1'-3"	2"	3'-2"	2"	1 1/2" ϕ	8"	9"	2'-0"



ELEVATION
FIXED BEARING
(At 45° F.)

TABLE "W"	
Location	Weld size
Piers 3N and 5N	3/8"
Piers 2R and 5R	1/4"



ANCHOR BOLT DETAIL

NOTES:
All structural steel shall be
M270 (A709), Gr. 50, unless noted.

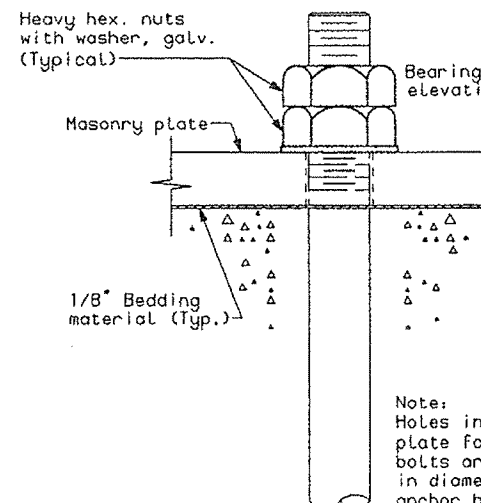
GUIDED EXPANSION BEARINGS

Location	Quantity	Beveled sole plate			Slope %	Guide plate		Piston plate		Elastomeric disc	Brass sealing ring	Pot plate					
		A1	A2	A3		L x W	A4	A5	H x ϕ			L x W	A7	A8	A9	A10	
N. Bas. Pier	5	2'-0"	2'-3"	1 1/2"	-0.7168	1'-4 1/4" x 1'-4 1/4"	1 3/8"	3/8"	2" x 13.970"	3/8"	1" x 14"	5/16"	1'-3 1/2" x 1'-3 1/2"	3"	3/4"	3/4"	14"
Pier 1N	5	2'-5"	3'-1"	1 1/2"	-1.4108	1'-11 5/8" x 1'-11 5/8"	1 1/2"	7/16"	2 3/8" x 20.845"	7/16"	1 1/2" x 20 7/8"	3/8"	1'-10 7/8" x 1'-10 7/8"	4"	1"	1"	20 7/8"
Pier 3N	5	2'-9 1/2"	3'-4"	1 7/8"	-2.1502	2'-0 1/4" x 2'-0 1/4"	1 3/4"	11/16"	2 7/8" x 21.470"	11/16"	1 1/2" x 21 1/2"	3/8"	1'-11 1/2" x 1'-11 1/2"	4 1/4"	1"	1"	21 1/2"
Pier 4N Back	4	2'-2"	2'-5"	1 3/4"	-2.1502	1'-3 1/2" x 1'-3 1/2"	1 5/8"	5/8"	2 1/2" x 13.220"	5/8"	1" x 13 1/4"	5/16"	1'-2 3/4" x 1'-2 3/4"	3 1/4"	3/4"	3/4"	13 1/4"
Pier 4N Ahd.	4	1'-11"	2'-6"	1 3/4"	-2.1502	1'-4" x 1'-4"	1 5/8"	5/8"	2 1/2" x 13.720"	5/8"	1" x 13 3/4"	5/16"	1'-3 1/4" x 1'-3 1/4"	3 1/4"	3/4"	3/4"	13 3/4"
N. Abut. Brg. 1	4	1'-9"	2'-3"	2"	-0.4957	1'-3 1/4" x 1'-3 1/4"	2"	13/16"	2 3/4" x 12.970"	13/16"	7/8" x 13"	5/16"	1'-2 1/2" x 1'-2 1/2"	3 1/4"	3/4"	3/4"	13"
Pier 1R Ahead	4	1'-3 1/2"	2'-1"	1 3/8"	+6.0352	10 1/8" x 10 1/8"	1 1/4"	1/4"	1 3/8" x 7.845"	1/4"	5/8" x 7 7/8"	3/16"	9 3/8" x 9 3/8"	2 1/4"	3/4"	3/4"	7 7/8"
Pier 3R Back	4	1'-4 1/2"	2'-1"	1 3/8"	+3.8532	10 3/4" x 10 3/4"	1 1/4"	1/4"	1 3/8" x 8.470"	1/4"	5/8" x 8 1/2"	3/16"	10" x 10"	2 1/4"	3/4"	3/4"	8 1/2"
Pier 3R Ahead	4	1'-7"	2'-8"	1 3/8"	+3.8532	11" x 11"	1 1/4"	1/4"	1 3/8" x 8.720"	1/4"	5/8" x 8 3/4"	3/16"	10 1/4" x 10 1/4"	2 1/4"	3/4"	3/4"	8 3/4"
Pier 4R	4	1'-9 1/2"	2'-9"	1 3/8"	+3.8532	1'-1 1/4" x 1'-1 1/4"	1 1/4"	1/4"	1 1/4" x 10.970"	1/4"	3/4" x 11"	3/16"	1'-0 1/2" x 1'-0 1/2"	2 1/4"	3/4"	3/4"	11"
Pier 6R Back	4	1'-6"	2'-3"	1 3/8"	+3.6582	11 1/4" x 11 1/4"	1 1/4"	1/4"	1 3/8" x 8.970"	1/4"	5/8" x 9"	3/16"	10 1/2" x 10 1/2"	2 1/4"	3/4"	3/4"	9"

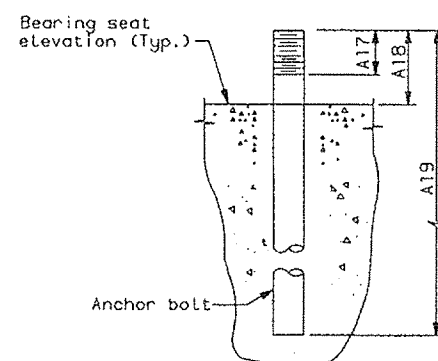
Location	Masonry plate					Anchor bolt				1/8" Thick PTFE		Depth A20
	A11	A12	A13	A14	A15	A16	A17	A18	A19	Horizontal plate	Vertical plate	
N. Bas. Pier	2 3/4"	1'-8"	2 1/2"	3'-4"	2 1/2"	2"	10"	12"	2'-8"	13 1/2"	3/4" x 1'-4 1/4"	0.7823'
Pier 1N	4"	2'-4"	3"	4'-4"	3"	2 1/2"	12"	15"	3'-4"	20 3/8"	7/8" x 1'-11 5/8"	0.9854'
Pier 3N	4"	2'-5"	3 1/2"	4'-9"	3 1/2"	3"	15"	18"	4'-0"	21"	1 1/4" x 2'-0 1/4"	1.0271'
Pier 4N Back	2 1/2"	1'-6"	2 1/2"	3'-6"	2 1/2"	2"	10"	12"	2'-8"	12 3/4"	1" x 1'-3 1/4"	0.8031'
Pier 4N Ahd.	2 3/4"	1'-7"	2 1/2"	3'-7"	2 1/2"	2"	10"	12"	2'-8"	13 1/4"	1 1/8" x 1'-4"	0.8239'
N. Abut. Brg. 1	2 3/8"	1'-6"	3"	3'-6"	3"	2 1/2"	10"	12"	3'-1"	12 1/2"	1 1/2" x 1'-3 1/8"	0.8187'
Pier 1R Ahead	1 1/4"	1'-0"	2"	3'-0"	2"	1 1/2"	8"	9"	2'-0"	7 3/8"	3/4" x 10 1/8"	0.5739'
Pier 3R Back	1 3/8"	1'-0"	2"	3'-0"	2"	1 1/2"	8"	9"	2'-0"	8"	3/4" x 10 3/4"	0.5844'
Pier 3R Ahead	1 1/2"	1'-0 1/2"	2"	3'-7"	2"	1 1/2"	8"	9"	2'-0"	8 1/4"	3/4" x 10 3/4"	0.5948'
Pier 4R	1 7/8"	1'-3"	2"	3'-8"	2"	1 1/2"	8"	9"	2'-0"	10 1/2"	3/4" x 1'-1"	0.6260'
Pier 6R Back	1 5/8"	1'-1"	2"	3'-2"	2"	1 1/2"	8"	9"	2'-0"	8 1/2"	3/4" x 11 1/4"	0.6052'

TABLE "W"

Location	Weld size
N. Bascule Pier and Piers 1R (Ahead,) 3R (Back,) (3R Ahead,) 4R and 6R (Back)	1/4"
Pier 1N, 4N (Back)	5/16"
Piers 3N, 4N (Ahead) and N. Abut. brg. 1	3/8"



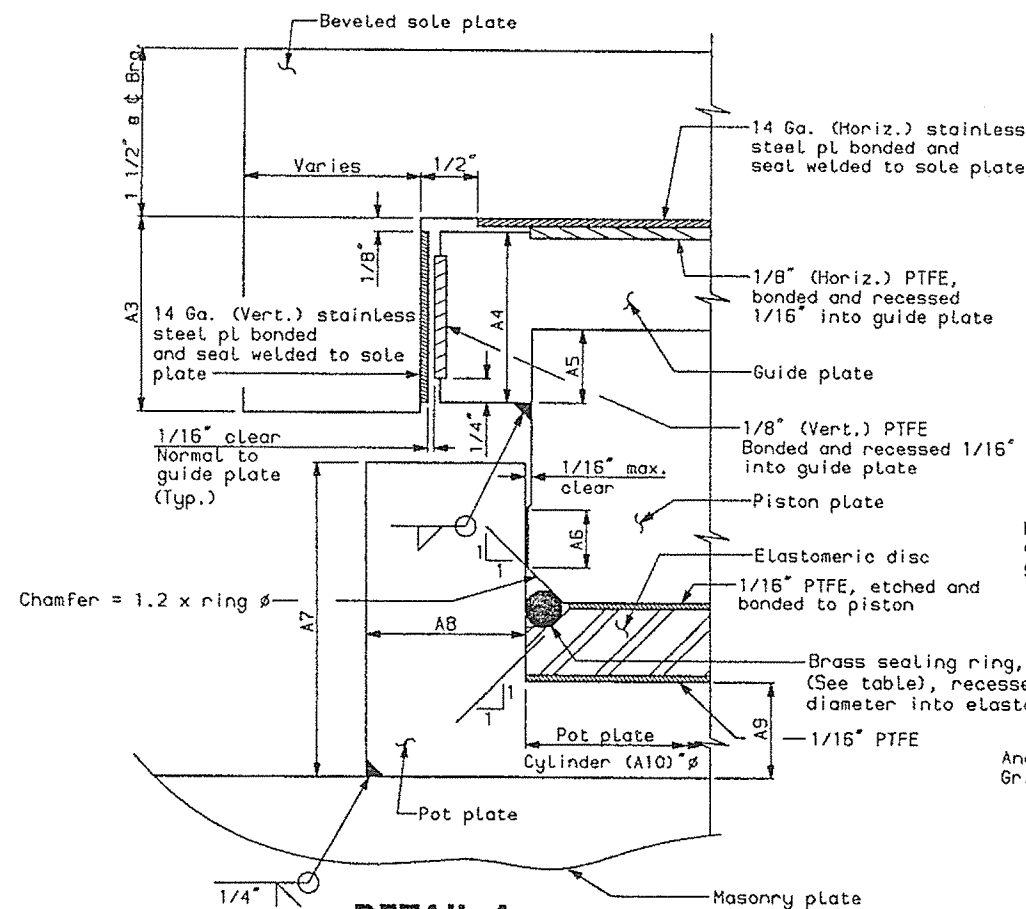
BEARING ANCHOR I



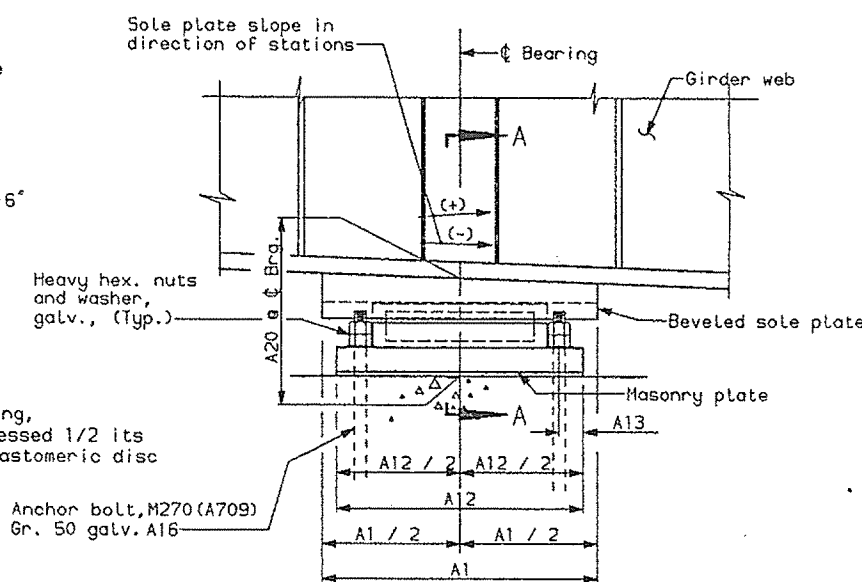
ANCHOR BOLT DETAIL

NOTE:

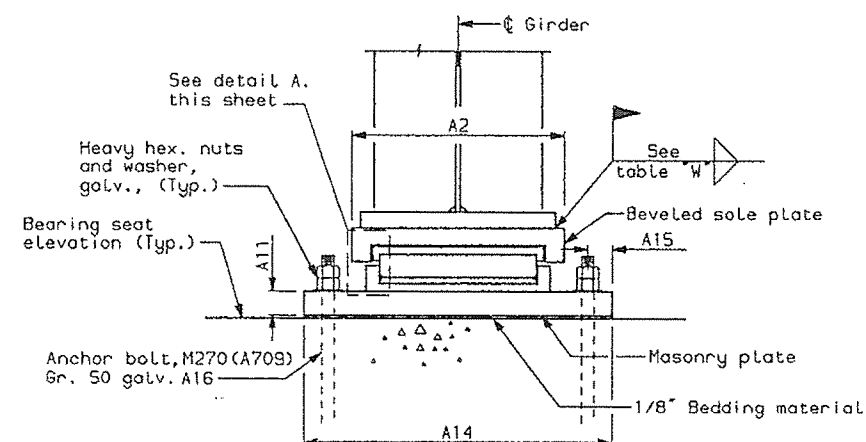
All structural steel shall be M270 (A709), Gr. 50, unless noted.



DETAIL A



ELEVATION
GUIDED EXPANSION BEARING
(At 45° F.)



SECTION A-A

NORTH APPROACH

STATE OF MAI
DEPARTMENT OF TRANS

PORTLAND - S. PORTI
OVER FORE R
CUMBERLAND C

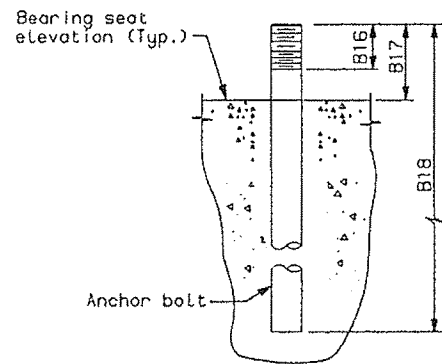
POT BEAR
DETAILS

NON-GUIDED EXPANSION BEARINGS

F.H.W.A. REG. NO.	STATE	PROJ.
1	MAINE	DPI-1

Location	Girder	Quantity	Beveled sole plate		Slope %	Piston plate		Elastomeric disc H x ϕ	Brass sealing ring	Pot plate				
			B1	B2		H x ϕ	B5			L x W	B6	B7	B8	B9
N. Bas. Pier	1,7	2	2'-0"	2'-3"	-0.7168	1 1/2" x 13.97" ϕ	3/8"	1" x 14" ϕ	5/16" ϕ	1'-3 1/2" x 1'-3 1/2"	3"	3/4"	3/4"	14" ϕ
Pier 1N	1,7	2	2'-5"	3'-1"	-1.4108	1 1/2" x 20.875" ϕ	7/16"	1 1/2" x 20 7/8" ϕ	3/8" ϕ	1'-10 7/8" x 1'-10 7/8"	4"	1"	1"	20 7/8" ϕ
Pier 2N	1,7	2	2'-10"	2'-10"	-2.1502	2 1/8" x 19.470" ϕ	3/4"	1 3/8" x 19 1/2" ϕ	3/8" ϕ	1'-9" x 1'-9"	4"	3/4"	7/8"	19 1/2" ϕ
Pier 3N	1,7	2	2'-9 1/2"	3'-4"	-2.1502	2 1/8" x 21.470" ϕ	11/16"	1 1/2" x 21 1/2" ϕ	3/8" ϕ	1'-11 1/2" x 1'-11 1/2"	4 1/4"	1"	1"	21 1/2" ϕ
Pier 4N Bak.	1,6	2	2'-2"	2'-5"	-2.1502	1 3/4" x 13.220" ϕ	5/8"	1" x 13 1/4" ϕ	5/16" ϕ	1'-2 3/4" x 1'-2 3/4"	3 1/4"	3/4"	3/4"	13 1/4" ϕ
Pier 4N Ahd.	1,6	2	1'-11"	2'-6"	-2.1502	1 3/4" x 13.720" ϕ	5/8"	1" x 13 3/4" ϕ	5/16" ϕ	1'-3 1/4" x 1'-3 1/4"	3 1/4"	3/4"	3/4"	13 3/4" ϕ
Pier 6R Ahd.	6A,7	2	2'-2"	1'-8"	-3.5250	1 1/2" x 13.220" ϕ	3/8"	1" x 13 1/4" ϕ	5/16" ϕ	1'-2 3/4" x 1'-2 3/4"	3"	3/4"	3/4"	13 1/4" ϕ
Pier 5N	1,6	2	3'-7"	4'-3"	-2.1040	2 1/4" x 23.845" ϕ	3/4"	1 5/8" x 23 7/8" ϕ	1/2" ϕ	2'-1 3/8" x 2'-1 3/8"	4 1/2"	3/4"	1 1/8"	23 7/8" ϕ
N. Abut. Brg. 1	1,6	2	1'-9"	2'-3"	-0.4957	1 7/8" x 12.970" ϕ	13/16"	7/8" x 13" ϕ	5/16" ϕ	1'-2 1/2" x 1'-2 1/2"	3 1/4"	3/4"	3/4"	13" ϕ

Location	Masonry plate					Anchor bolts				1/8" Thick PTFE	14 Ga stainless steel	Depth
	B10	B11	B12	B13	B14	B15	B16	B17	B18	Horizontal plate	Horizontal plate, S	B19
N. Bas. Pier	2 3/4"	1'-8"	2 1/2"	3'-4"	2 1/2"	2" ϕ	10"	12"	2'-8"	13 1/2" ϕ	17 1/2"	0.6573'
Pier 1N	4"	2'-4"	3"	4'-4"	3"	2 1/2" ϕ	12"	15"	3'-4"	20 3/8" ϕ	24 3/8"	0.8552'
Pier 2N	4"	2'-2"	3 1/2"	4'-2"	3 1/2"	3" ϕ	15"	18"	4'-0"	18 7/8" ϕ	22 7/8"	0.8552'
Pier 3N	4"	2'-5"	3 1/2"	4'-9"	3 1/2"	3" ϕ	15"	18"	4'-0"	21" ϕ	25"	0.8760'
Pier 4N Bak.	2 1/2"	1'-6"	2 1/2"	3'-6"	2 1/2"	2" ϕ	10"	12"	2'-8"	12 3/4" ϕ	16 3/4"	0.6573'
Pier 4N Ahd.	2 3/4"	1'-7"	2 1/2"	3'-7"	2 1/2"	2" ϕ	10"	12"	2'-8"	13 1/4" ϕ	17 1/4"	0.8781'
Pier 6R Ahd.	2 1/2"	1'-6"	2"	4'-0"	2"	1 1/2" ϕ	10"	11"	2'-2"	12 3/4" ϕ	16 3/4"	0.6364'
Pier 5N	4 1/2"	2'-8"	3 1/2"	5'-7"	3 1/2"	3" ϕ	15"	18"	4'-0"	23 1/4" ϕ	27 1/4"	0.9489'
N. Abut. Brg. 1	2 3/8"	1'-6"	3"	3'-6"	3"	2 1/2" ϕ	10"	12"	3'-1"	12 1/2" ϕ	16 1/2"	0.6469'

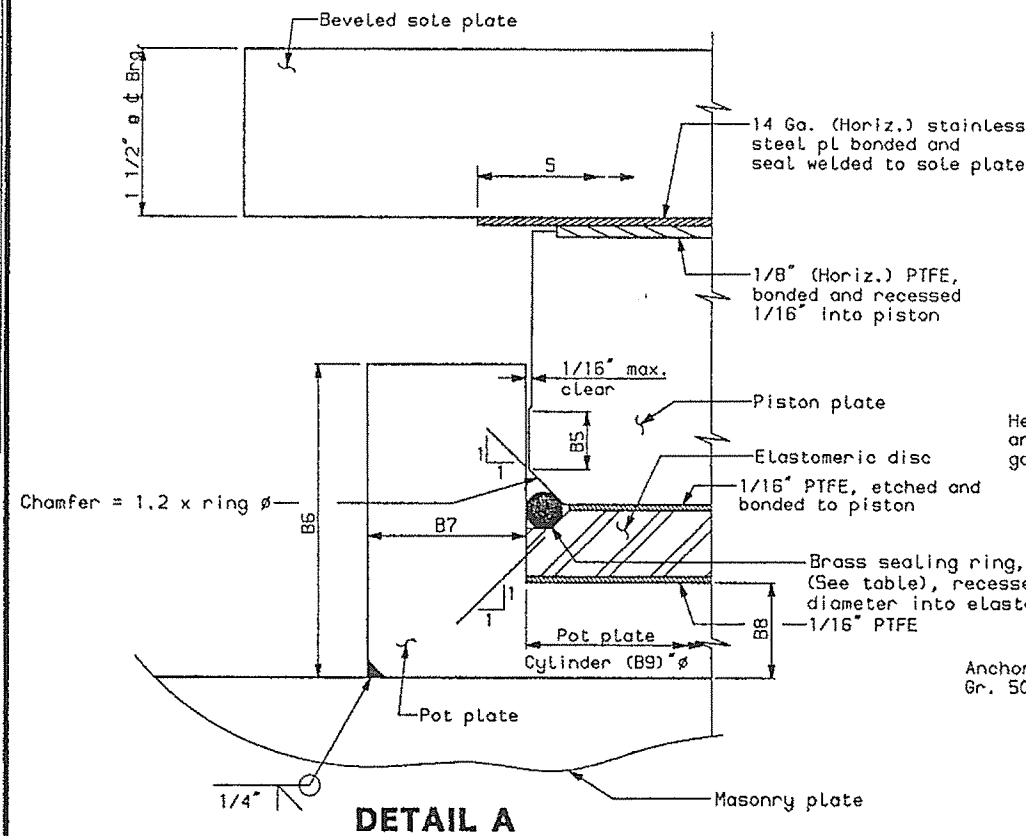


ANCHOR BOLT DETAIL

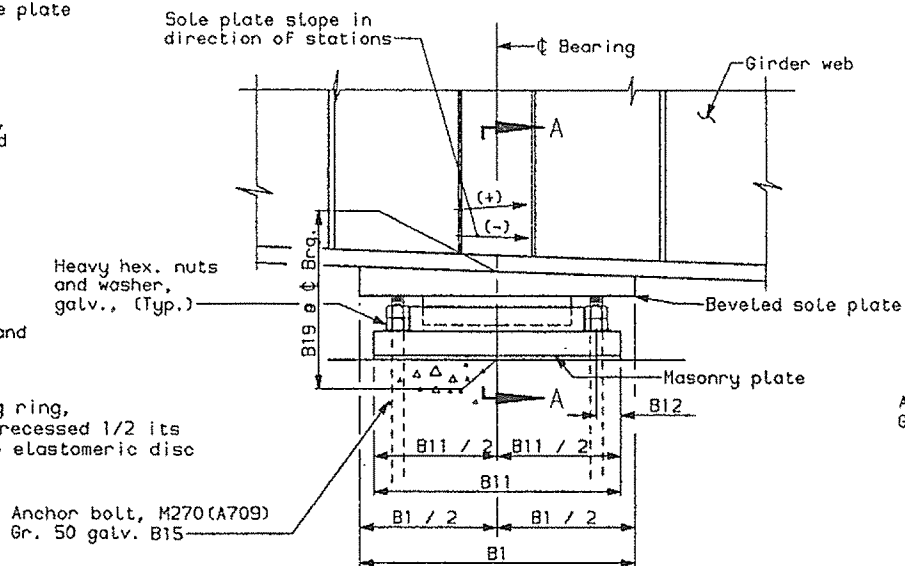
TABLE "W"	
Location	Weld size
1N, 4N (Back)	5/16"
2N, 3N, 4N (Ahead), 5N N. Abut.	3/8"
North bascule pier	1/4"

NOTE:

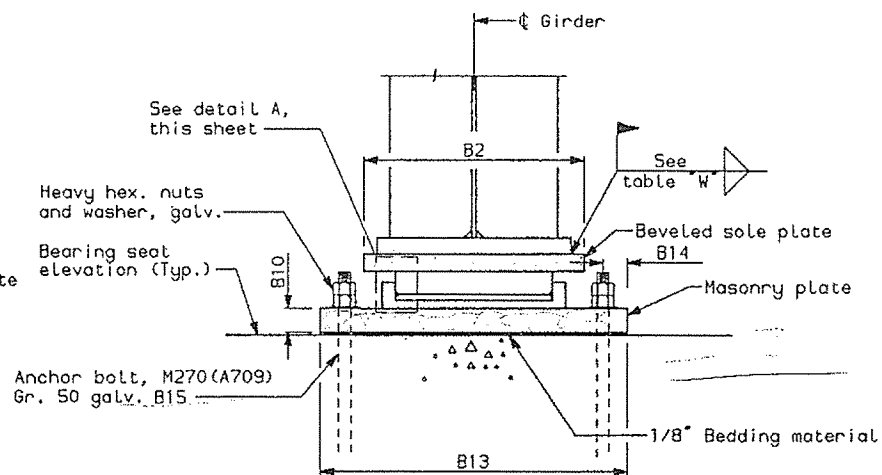
All structural steel shall be M270 (A709), Gr. 50, unless noted.



DETAIL A



ELEVATION
NON-GUIDED EXPANSION BEARING
(At 45°F.)



SECTION A-A

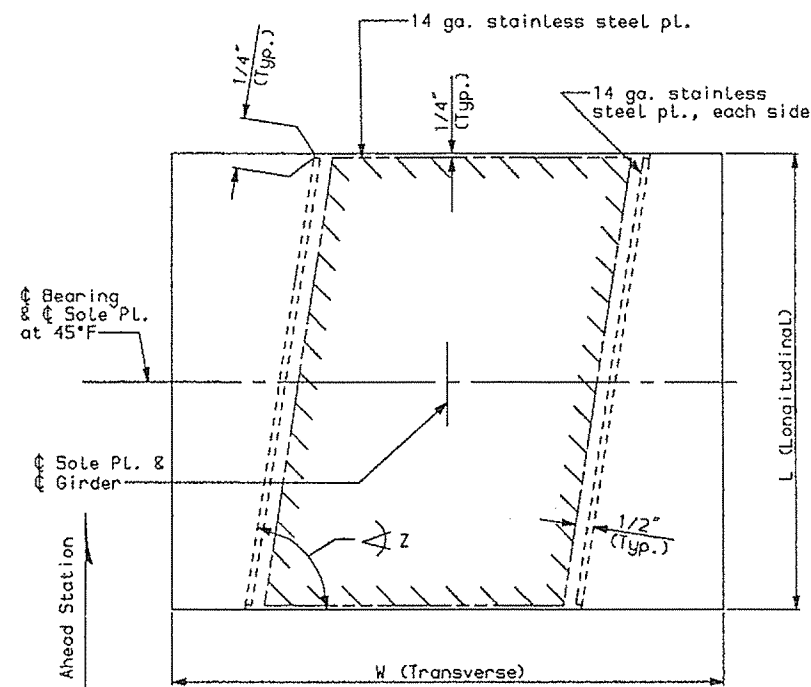
NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE
CUMBERLAND

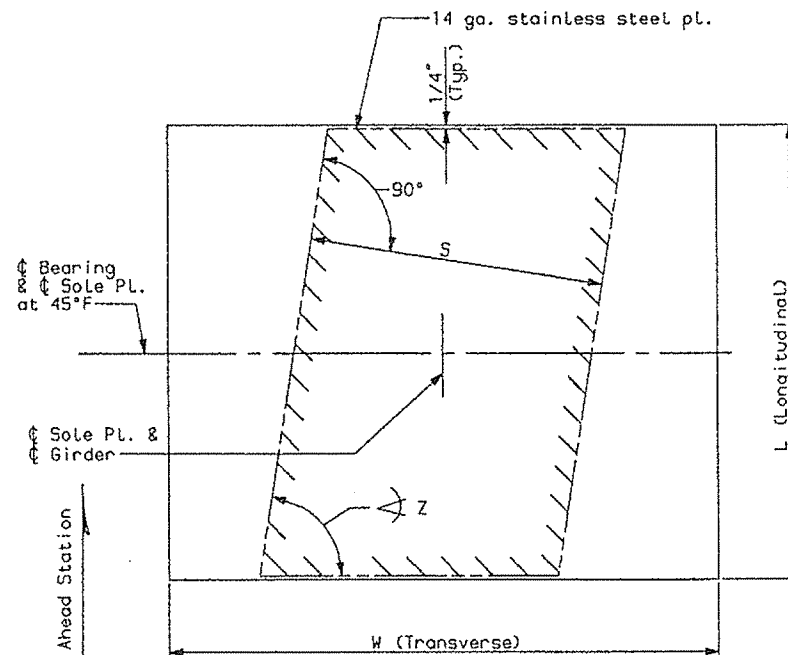
POT BEAR
DETAILS

SHEET 88 OF 156 AUGUSTA,



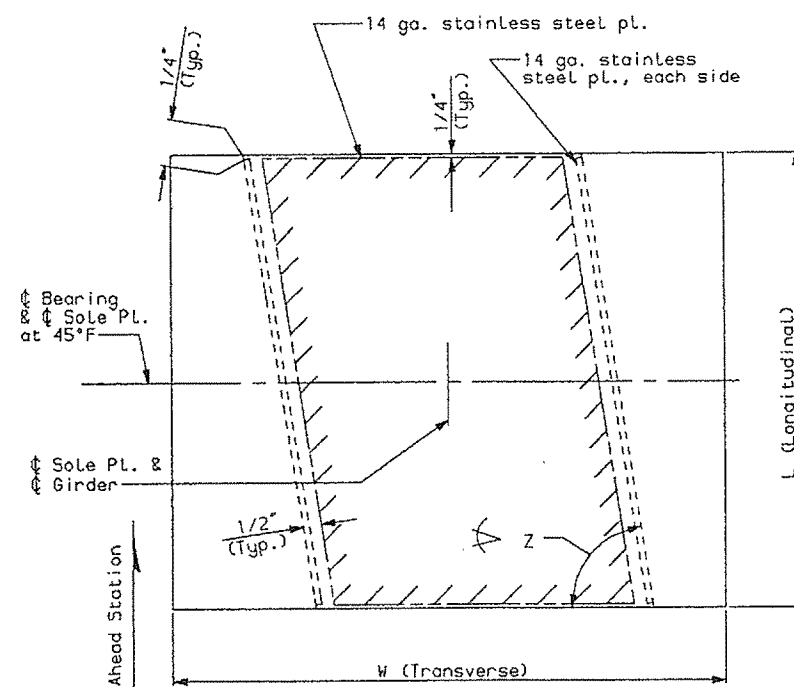
**PLAN - BEVELED SOLE PLATE
GUIDED EXPANSION BEARING**

(Interior girders, typical)
N. Bascule Pier, Piers 1N, 4N ahead



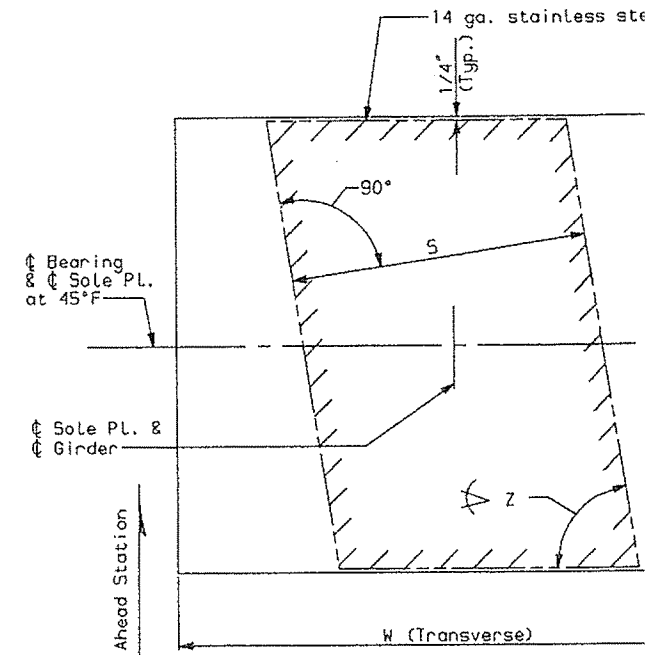
**PLAN - BEVELED SOLE PLATE
NON-GUIDED EXPANSION BEARING**

(Exterior girders, typical)
N. Bascule Pier, Piers 1N, 4N ahead



**PLAN - BEVELED SOLE PLATE
GUIDED EXPANSION BEARING**

(Interior girders, typical)
Piers 3N, 4N back and N. Abut. Brg. 1



**PLAN - BEVELED SOLE PL
NON-GUIDED EXPANSION BE**

(Exterior girders, typical)
Piers 3N, 4N back and N. Abut. Brg.

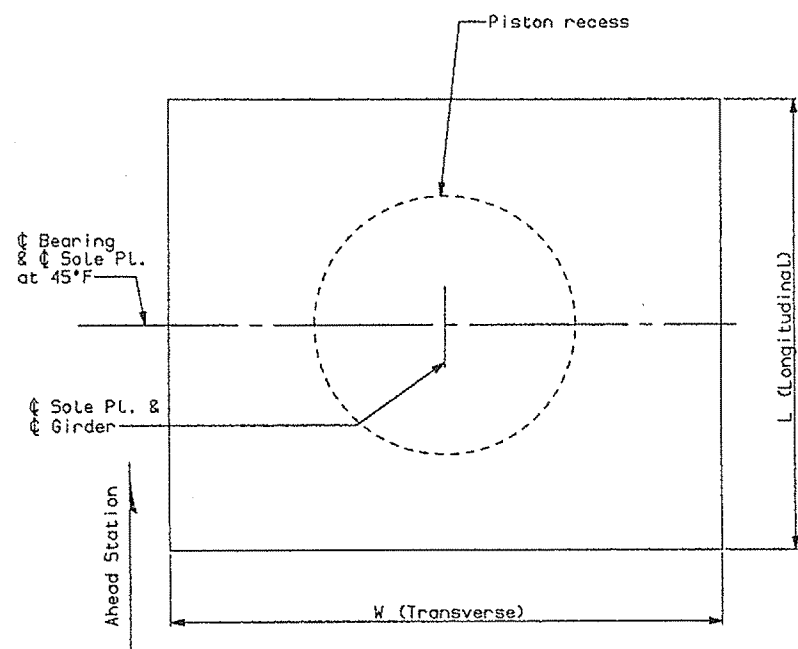
BEVELED SOLE PLATES

Location	L	W	Z (Typ. u.n.)
N.Bas.Pier	2'-0"	2'-3"	89.655°
Pier 1N	2'-5"	3'-1"	89.378°
Pier 2N	2'-10"	2'-10"	90.000°
Pier 3N	2'-9 1/2"	3'-4"	79.848°
Pier 4N Bak.	2'-2"	2'-5"	78.399°
Pier 4N Ahd.	1'-11"	2'-6"	83.609°
Pier 6R Ahd.	2'-2"	1'-8"	90.000°
Pier 5N	3'-7"	4'-3"	90.000°
N.Abut. Brg.1	1'-9"	2'-3"	89.706°

Note: Tabulated data typical per line of bearings unless noted otherwise.

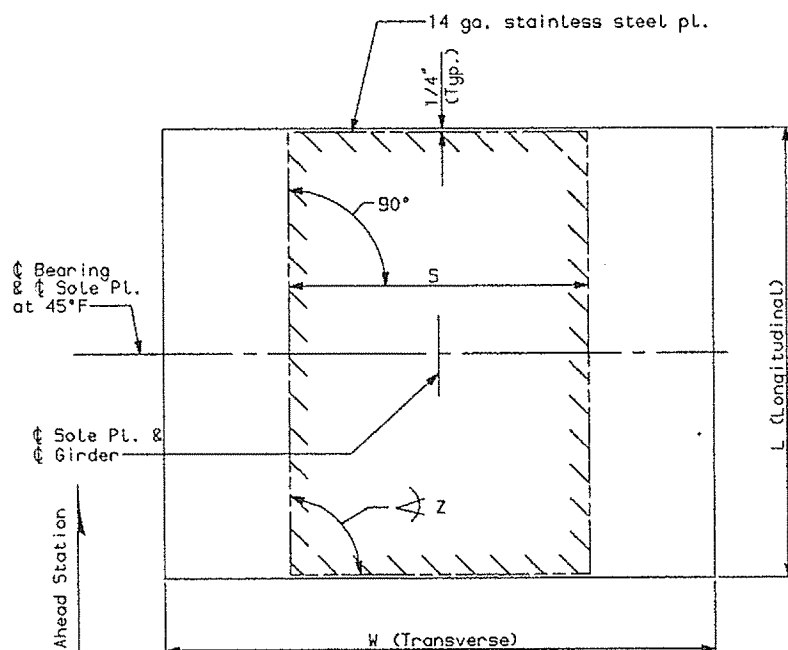
NOTE:

All structural steel shall be
M270 (A709), Gr. 50, unless noted.



**PLAN - BEVELED SOLE PLATE
FIXED BEARING**

(Interior girders, typical)
Piers 2N and 5N



**PLAN - BEVELED SOLE PLATE
NON-GUIDED EXPANSION BEARING**

(Exterior girders, typical)
Piers 2N, 5N and 6R ahead

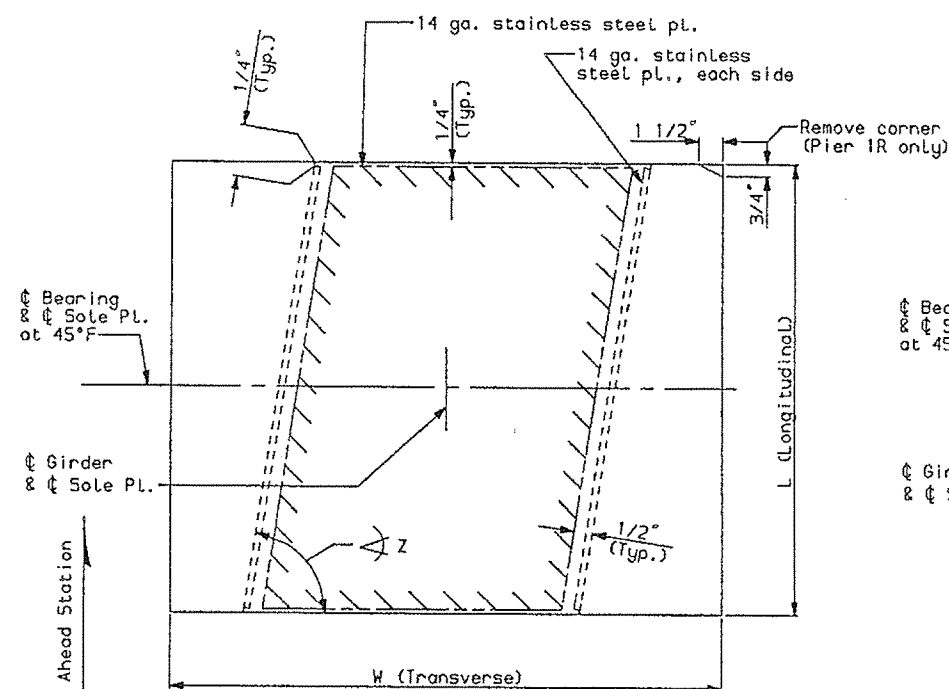
NORTH APPROACH

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DEPARTMENT OF TRAN

**PORTLAND - S. PORT
OVER FORD
CUMBERLAND**

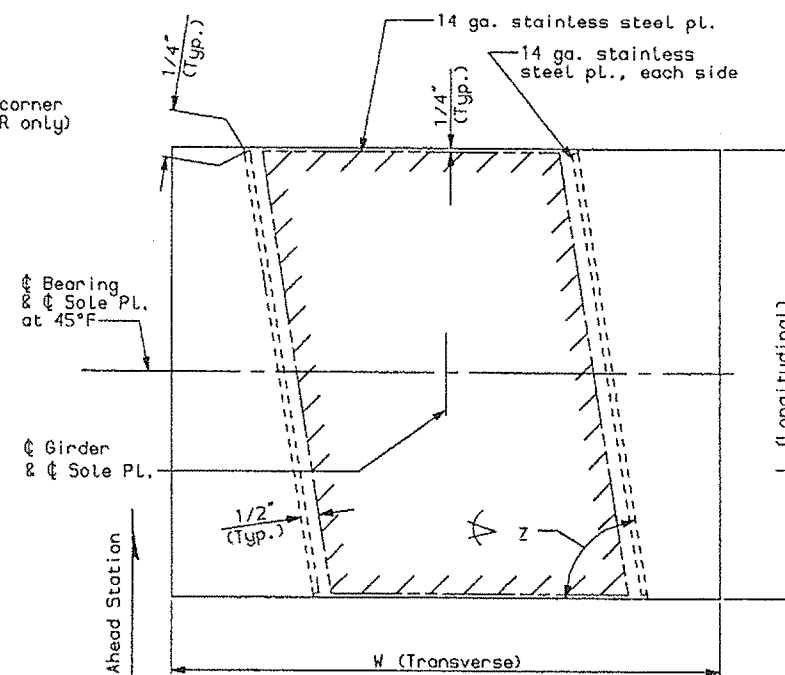
**POT BEARING
DETAILS**

SHEET 89 OF 156 AUGUSTA,



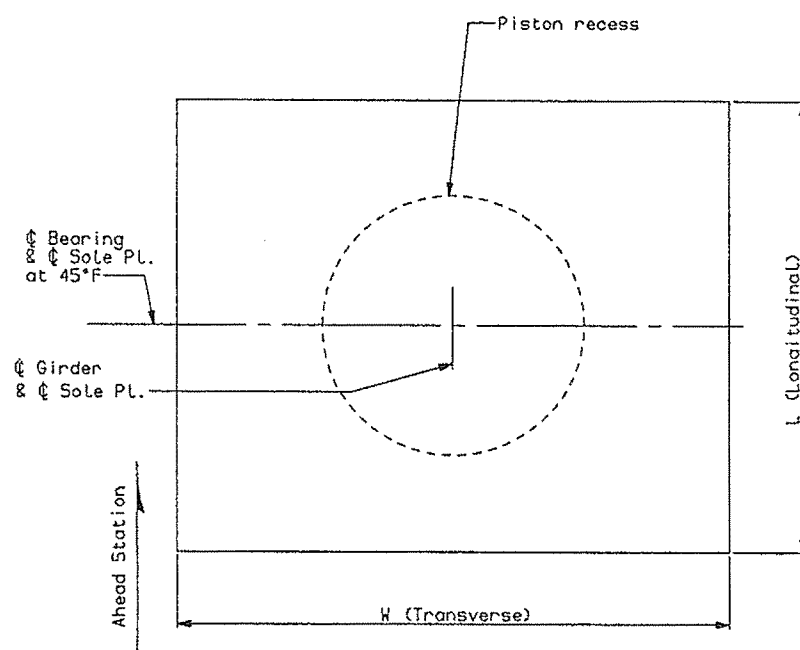
PLAN - BEVELED SOLE PLATE
GUIDED EXPANSION BEARING

(Typical all girders)
Piers 1R ahead, 3R ahead and 4R



PLAN - BEVELED SOLE PLATE GUIDED EXPANSION BEARING

(Typical all girders)
Piers 3R back and 6R back



PLAN - BEVELED SOLE PLATE
FIXED BEARING

(Typical all girders)
Piers 2R and 5R

BEVELED SOLE PLATES

Location	L	W	Z (Typ. u.n.)
Pier 1R Ahead	1'-3 1/2"	2'-1"	86.9444°
Pier 2R	1'-2"	2'-3"	90.0000°
Pier 3R Back	1'-4 1/2"	2'-1"	81.0006°
Pier 3R Ahead	1'-7"	2'-8"	51.2210°
Pier 4R	1'-9 1/2"	2'-9"	56.0086°
Pier 5R	1'-0 1/2"	2'-3"	90.0000°
Pier 6R Back	1'-8"	2'-3"	69.3150°

Note: Tabulated data typical per line of bearings unless noted otherwise.

NOTE:

All structural steel shall be
M270 (A709), Gr. 50, unless noted.

NORTH APPROACH

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DEPARTMENT OF TRANS

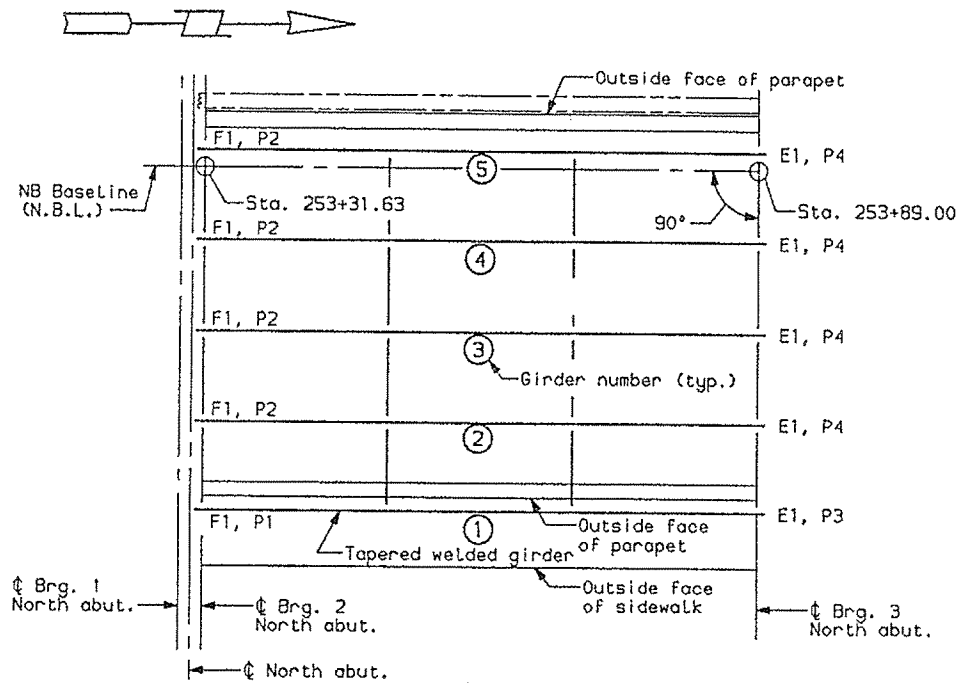
PORTLAND - S. PORT

OVER FORE I

CUMBERLAND

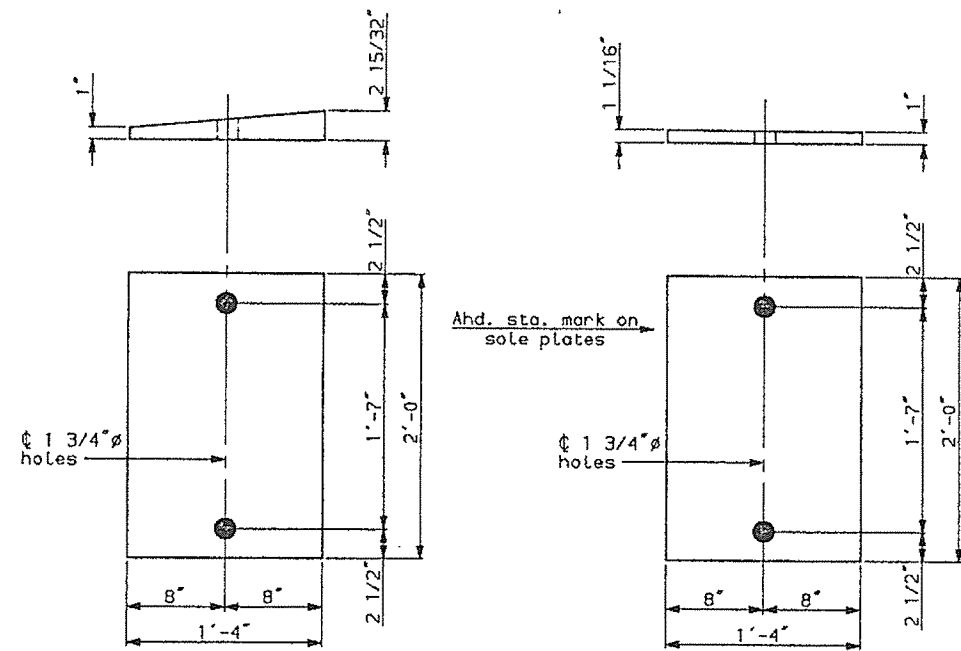
POT BEAF

DETAILS



SPAN N7

LOCATION PLAN

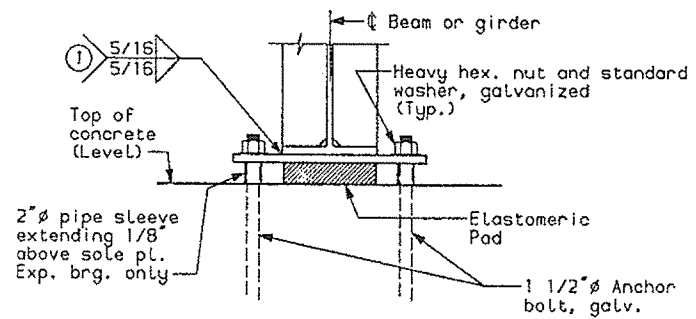


GIRDER 1 (P1)
SOLE PLATE DETAILS

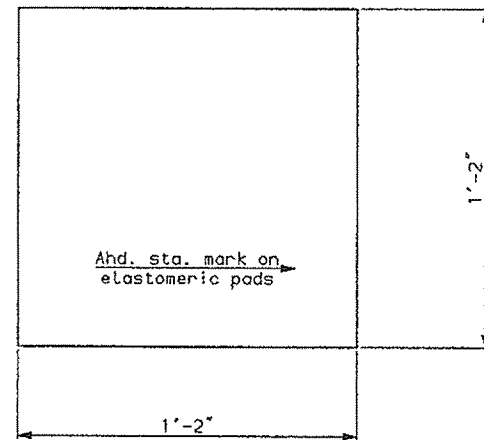
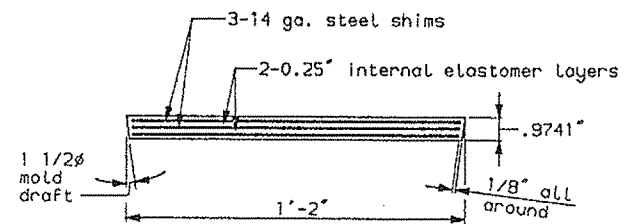
(Fixed bearing)
(N. Abut Brg. 2)

GIRDERS 2 THRU 5 (P2)
SOLE PLATE DETAILS

(Fixed bearing)
(N. Abut Brg. 2)

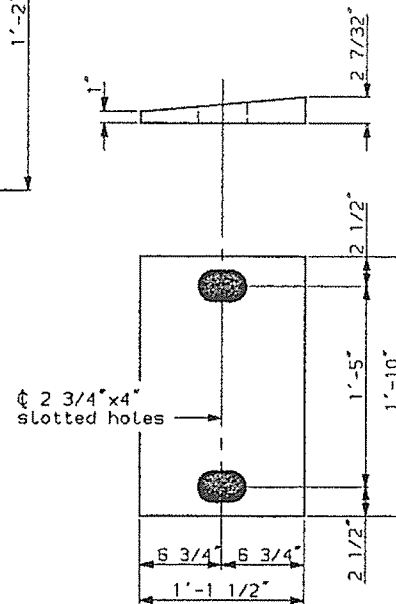


TYPICAL END VIEW



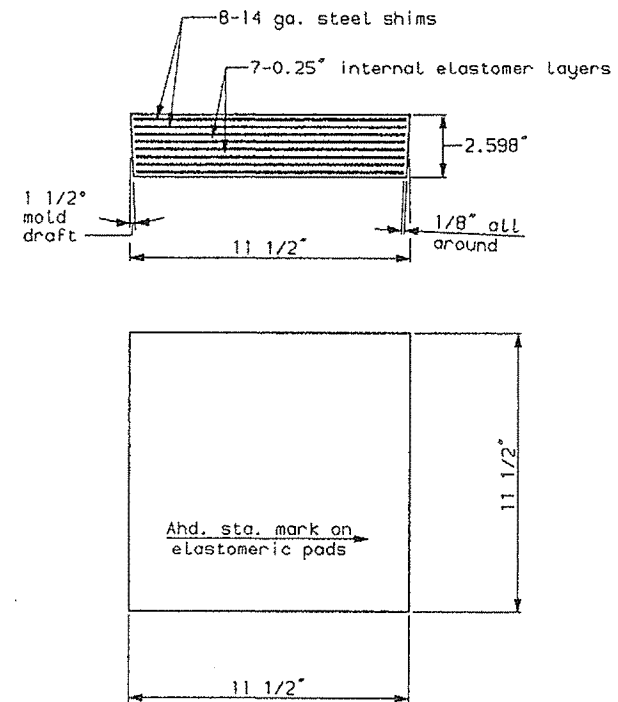
PLAN OF ELASTOMERIC BEARING PADS (F1)

(Fixed bearing)
(N. Abut Brg. 2)



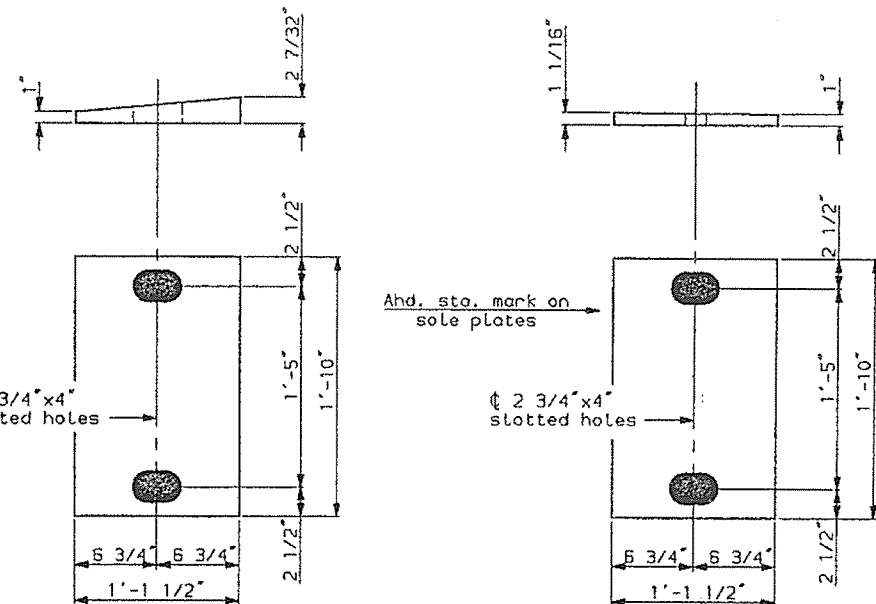
GIRDER 1 (P3)
SOLE PLATE DETAILS

(Expansion bearing)
(N. Abut Brg. 3)



PLAN OF ELASTOMERIC BEARING PADS (E1)

(Expansion bearing)
(N. Abut Brg. 3)



GIRDERS 2 THRU 5 (P4)
SOLE PLATE DETAILS

(Expansion bearing)
(N. Abut Brq. 3)

BEARING NOTES

Elastomer in all bearings shall have a durometer hardness. See special provision: At all fixed points of support, nuts & bolts are to be tightened finger tight and backed off 1/2 turn. The threads of the 1 bolt shall then be burred with a sharp pin. The pipe sleeves shall be cut from sch P.V.C. plastic pipe. The P.V.C. plastic shall meet the requirements of ASTM D1785. Field weld or shop weld. No field weld will be made while the elastomeric bearing pad is in contact with metal unless there more than 1 1/2" of steel between the weld and elastomer. In no case shall the elastomer or elastomer bond be exposed to instantaneous temperatures greater than 400° F. Any elastomeric bearing due to welding will be cause for rejection.

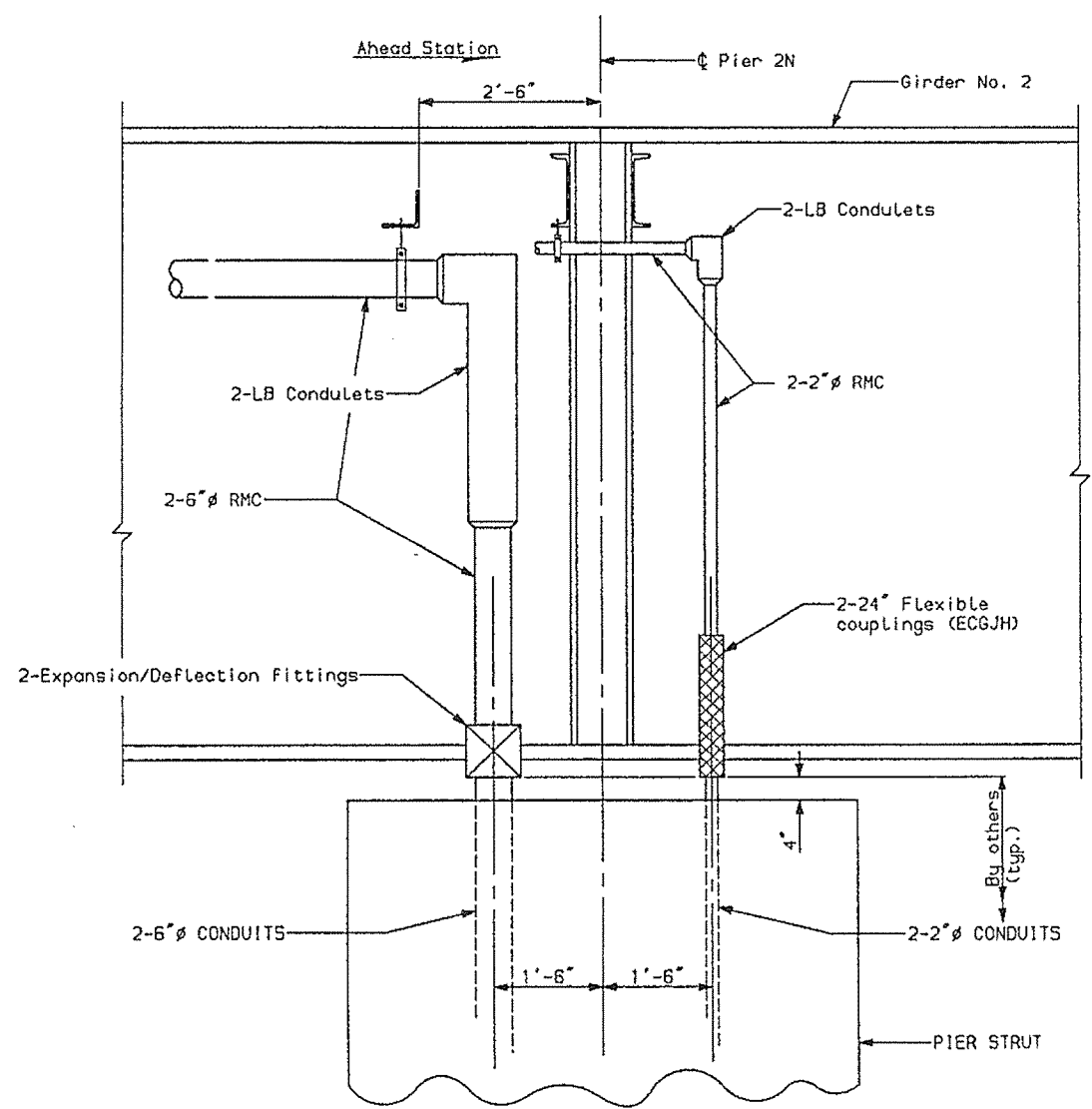
Sole plates to be AASHTO M270 (A709), structural steel.

Pin grooves in laminated bearings shall be filled by the manufacturer.

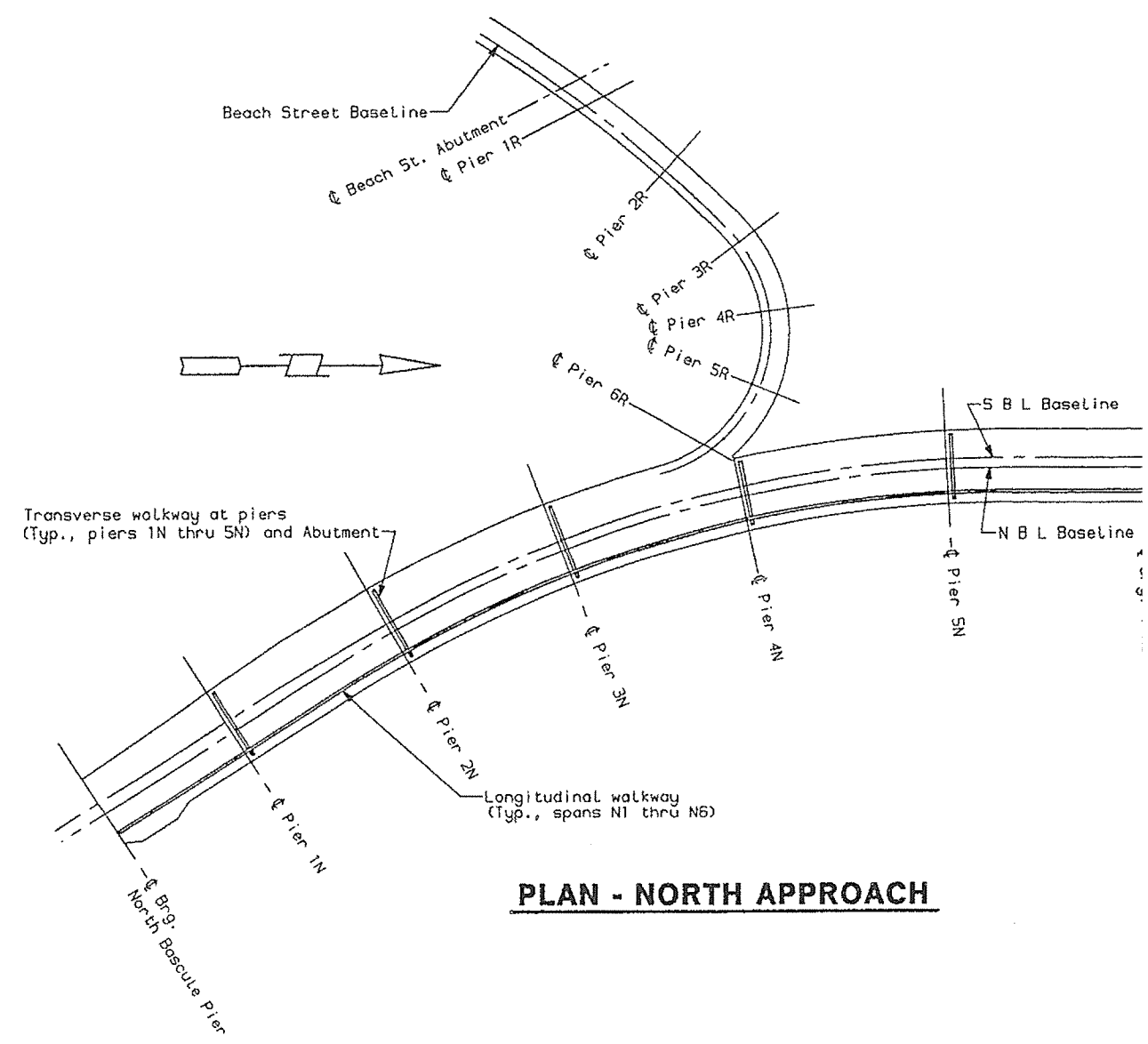
Elastomeric bearings shall be cast as

ELASTOMERIC BEARING PAD DESIGN LOADS

Pod	Max. L.L.	Max. D.L
E1	68 kips	55 kips
F1	68 kips	55 kips



CONDUIT DETAILS AT PIER 2N



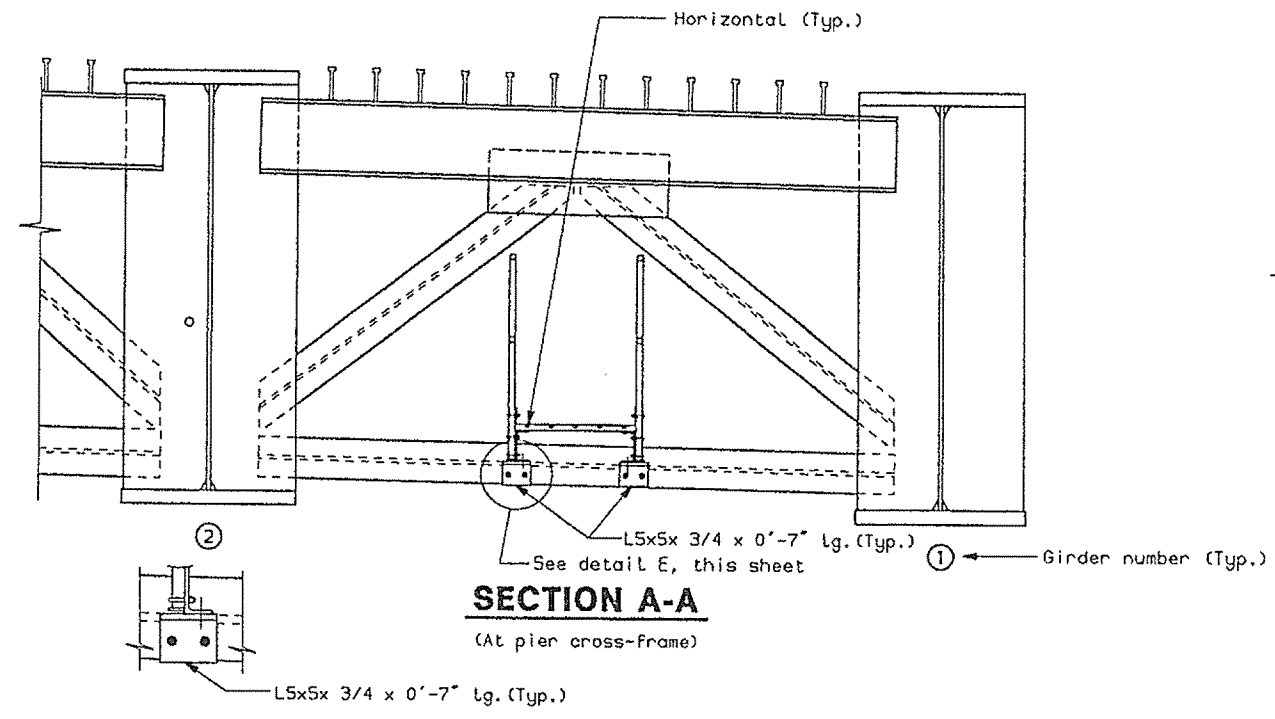
PLAN - NORTH APPROACH

PRC	DESIGN	CHECKED	REVISION	FIELD CHANGES
BY	DATE	DATE	DATE	DATE
EAR	6-94	6-94		
POB				
PLANS				

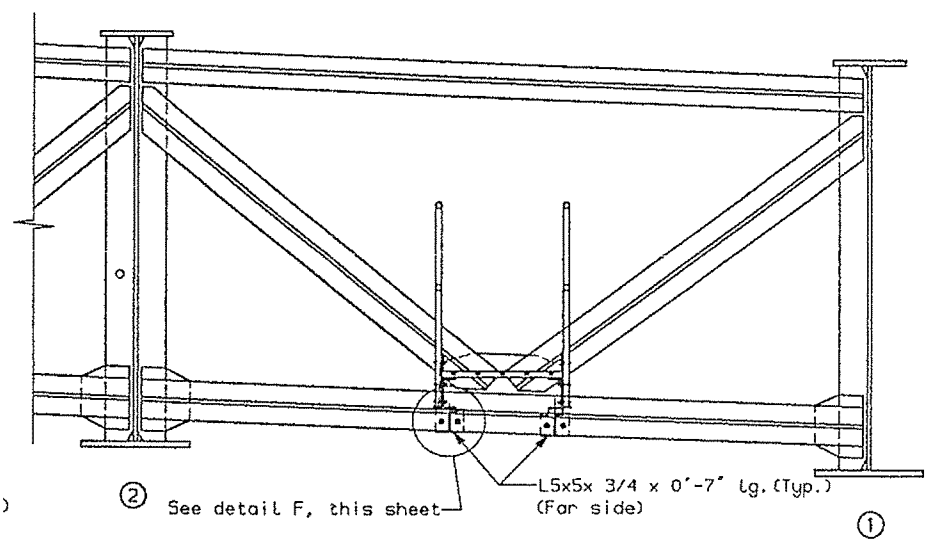
6-27-94

nd.walk-pL

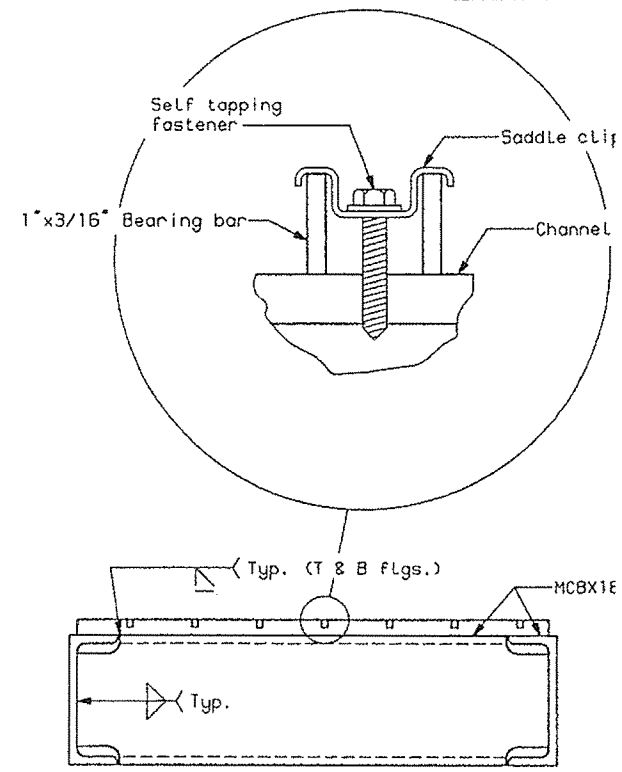
NORTH APPROACH	
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
PORTLAND - S. PORT OVER FORE CUMBERLAND	
INSPECTION LOCATION	
SHEET 92 OF 156 AUGUST 1994	



SECTION A-A
(At pier cross-frame)

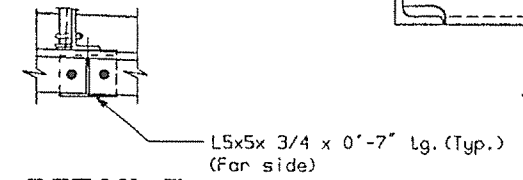


SECTION B-B
(At intermediate cross-frame)



SECTION C-C

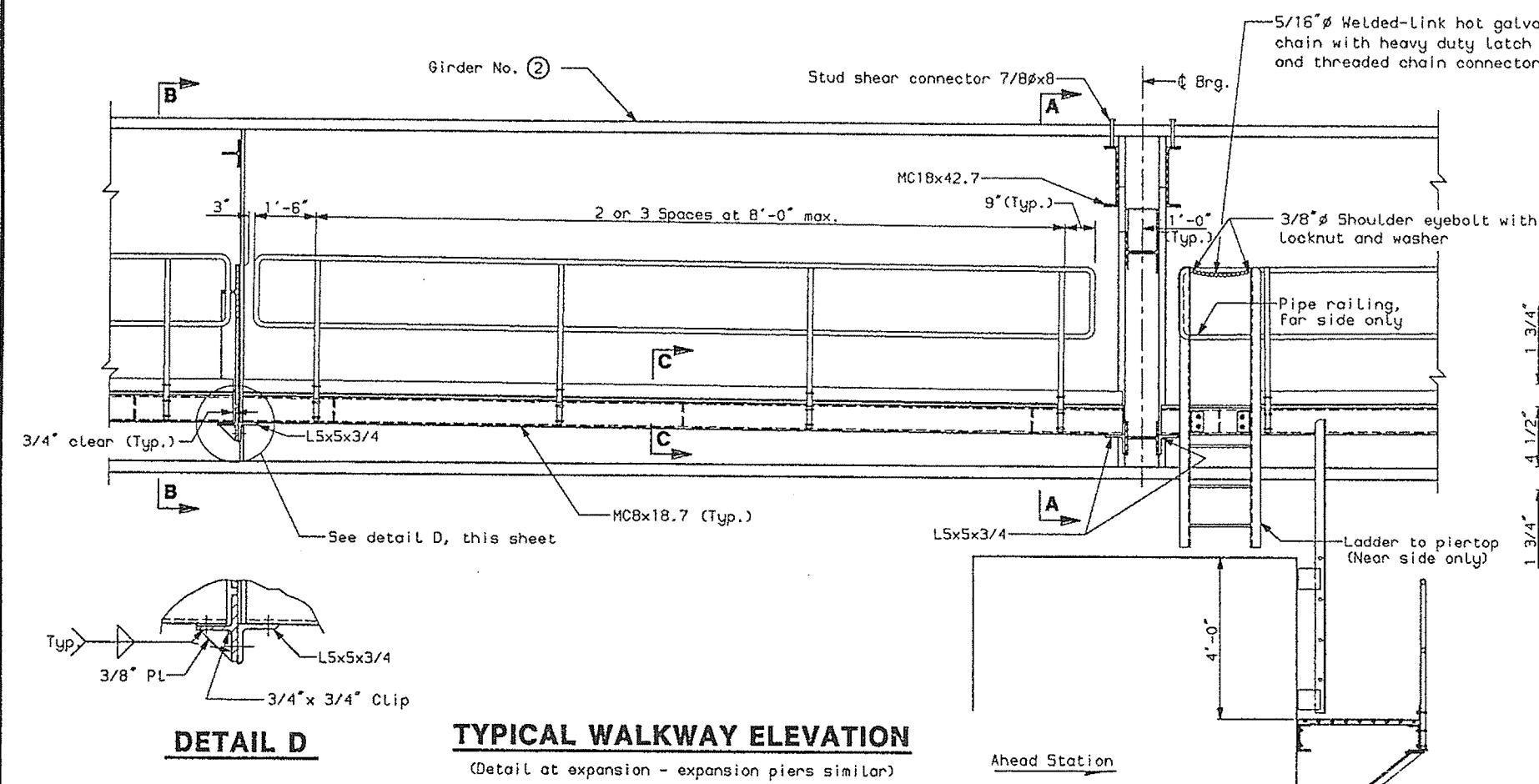
DETAIL E



DETAIL F

NOTES:

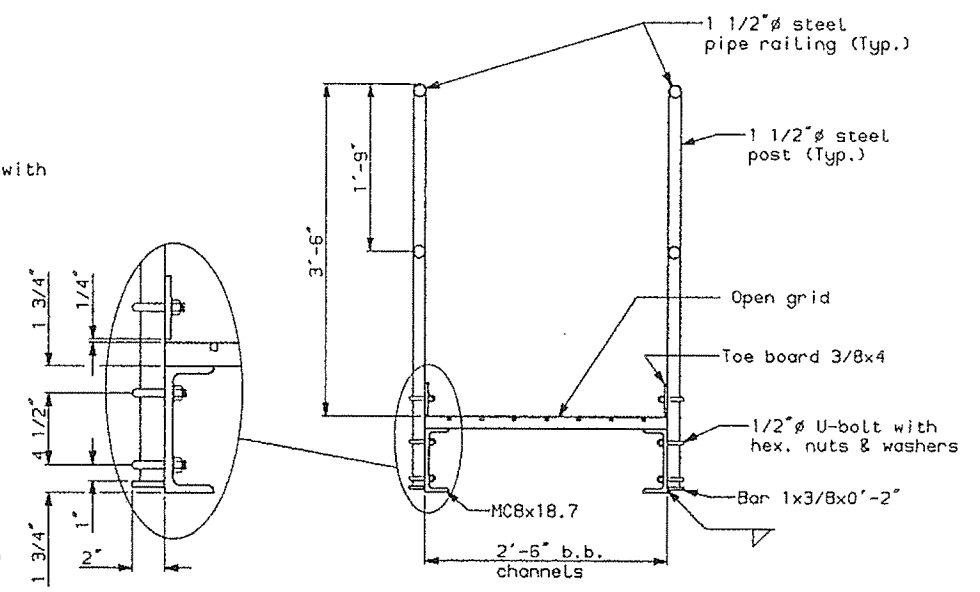
All walkway metalwork shall M183, unless noted.
Ladders, Posts, and Railing: galvanized, A53.



TYPICAL WALKWAY ELEVATION
(Detail at expansion - expansion piers similar)

DETAIL D

TYPICAL WALKWAY SECTION



DESIGN-DETAILED	SLN	6-94
CHECKED	PDB	6-94
REVISION		
FIELD CHANGES		

PLANS

3-3-94

na.walk-1

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORD RIVER
CUMBERLAND CREEK**

**INSPECTION
DETAILS**

SHEET 93 OF 156 AUGUSTA, ME

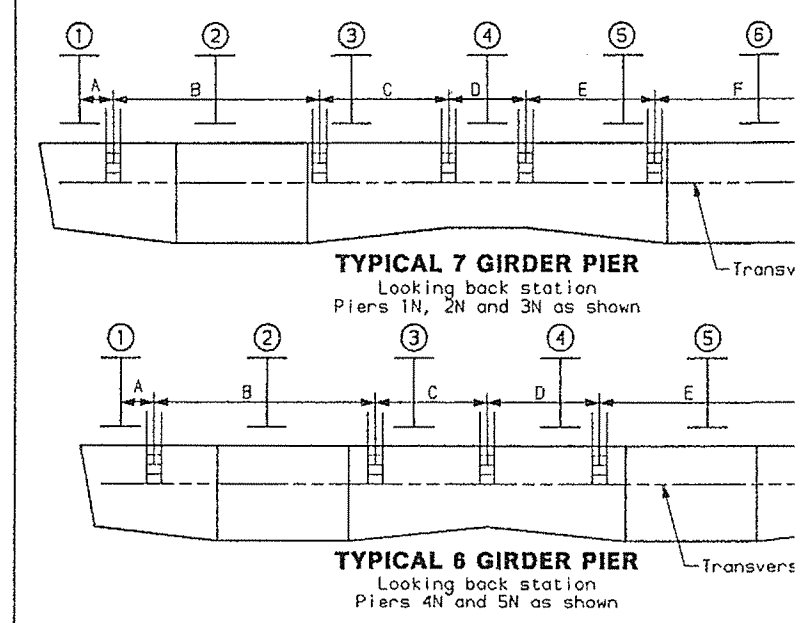
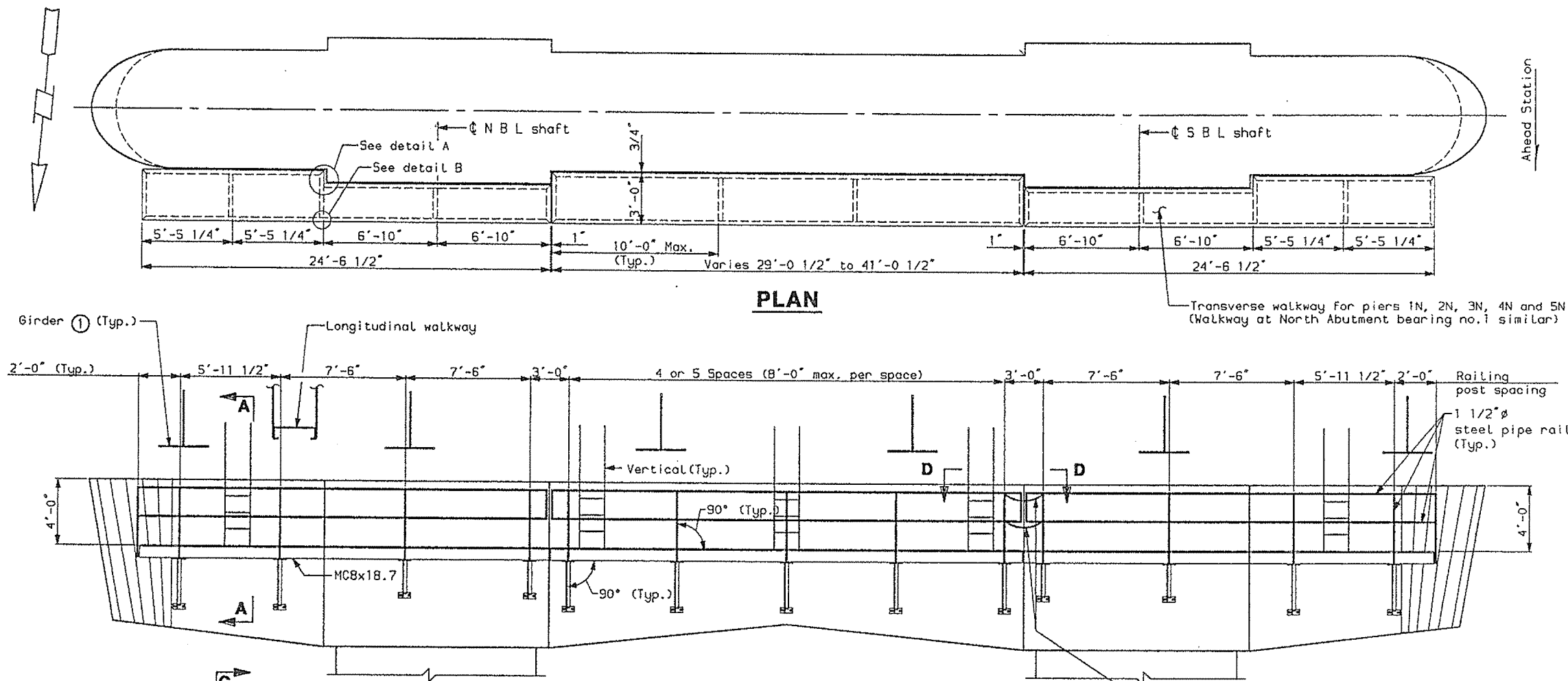
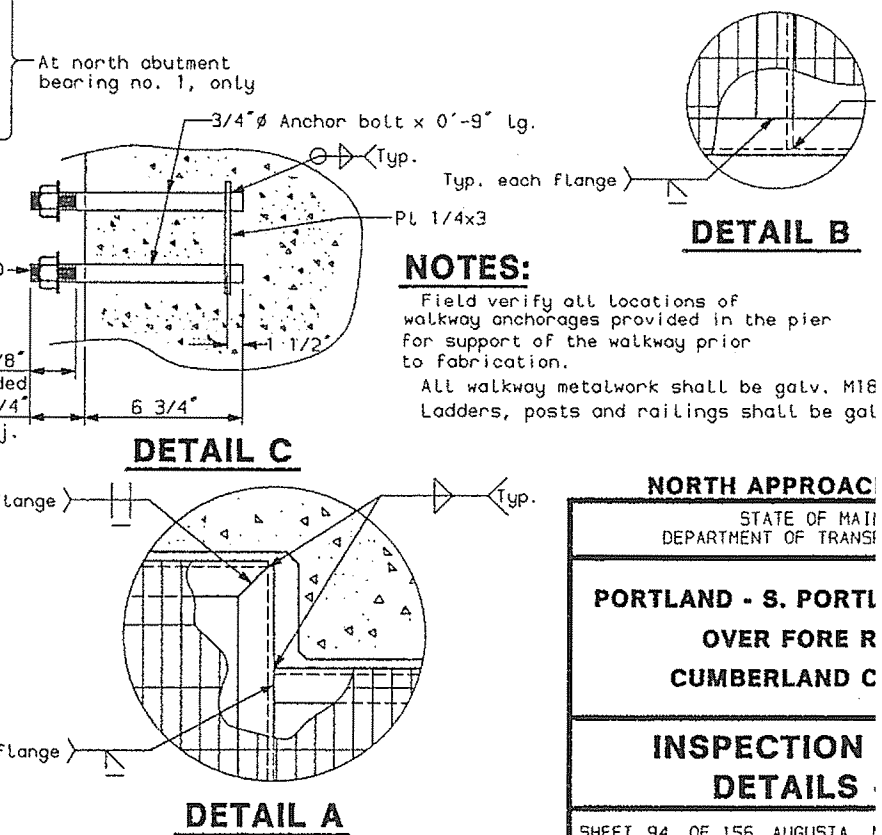
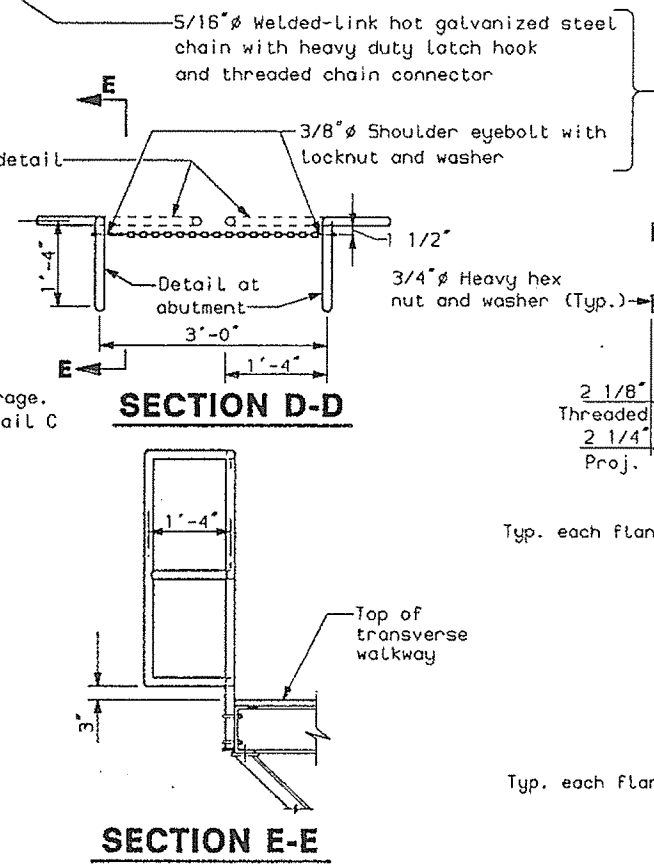
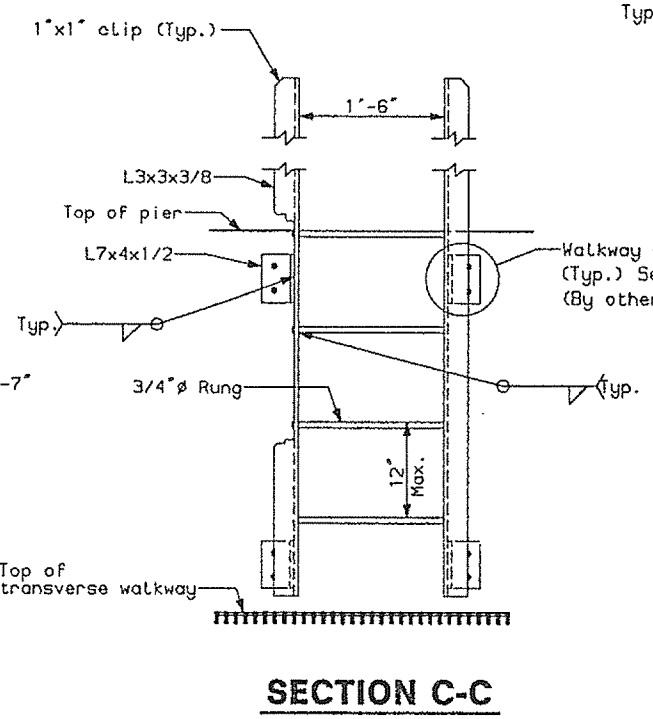
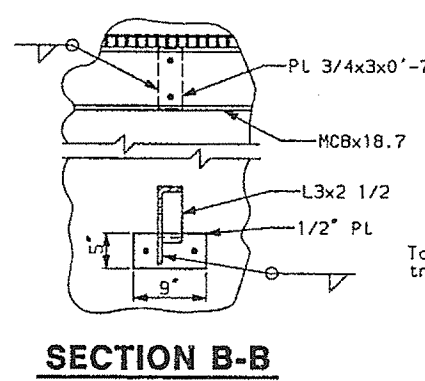
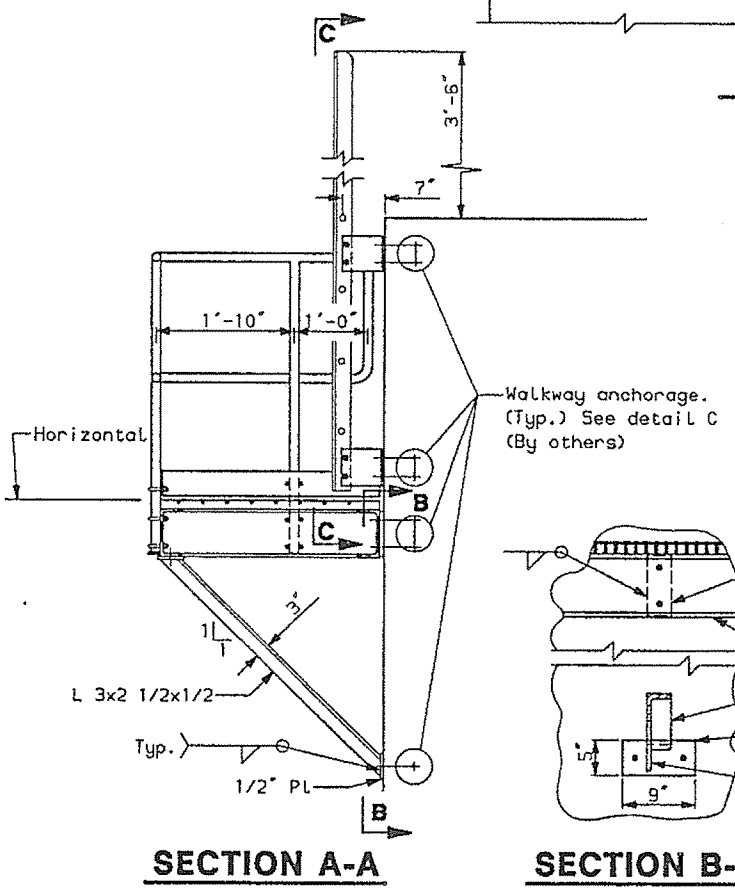


TABLE OF DIMENSIONS FOR PIER LADDERS					
Pier No.	A	B	C	D	E
1N	3'-5 1/2"	22'-8 1/2"	15'-1"	8'-0"	15'-1"
2N	3'-5 1/2"	No additional ladders required			
3N	3'-5 1/2"	22'-8 1/2"	15'-1"	8'-0"	22'-2"
4N	3'-5 1/2"	No additional ladders required			
5N	3'-5 1/2"	22'-8 1/2"	11'-6 1/2"	11'-6 1/2"	22'-8 1/2"
N. Abutment (Bearing no. 1)	3'-5 1/2"	No additional ladders required			

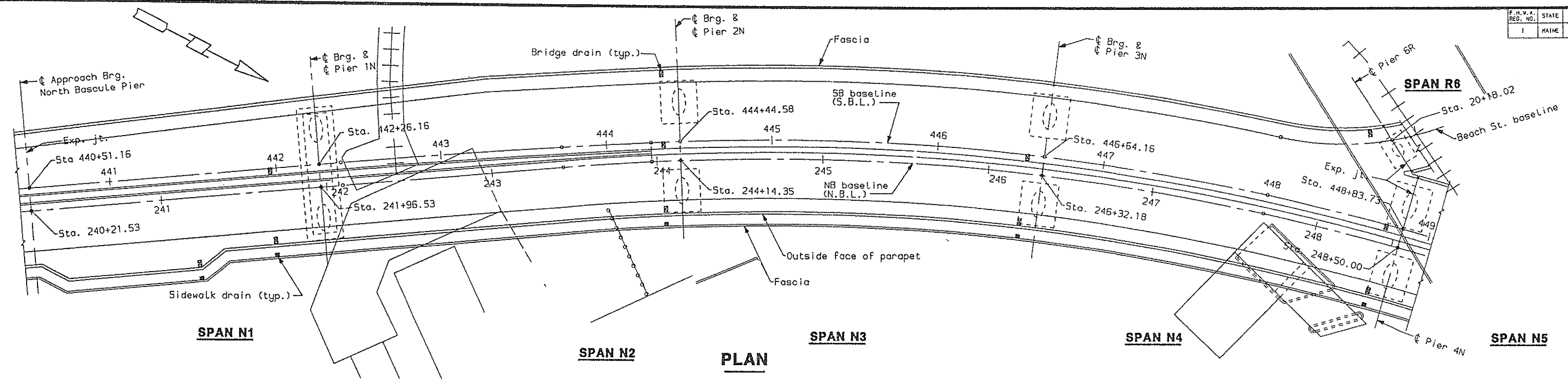
No walkways or ladders are required on Beach street ramp piers

08:49:21

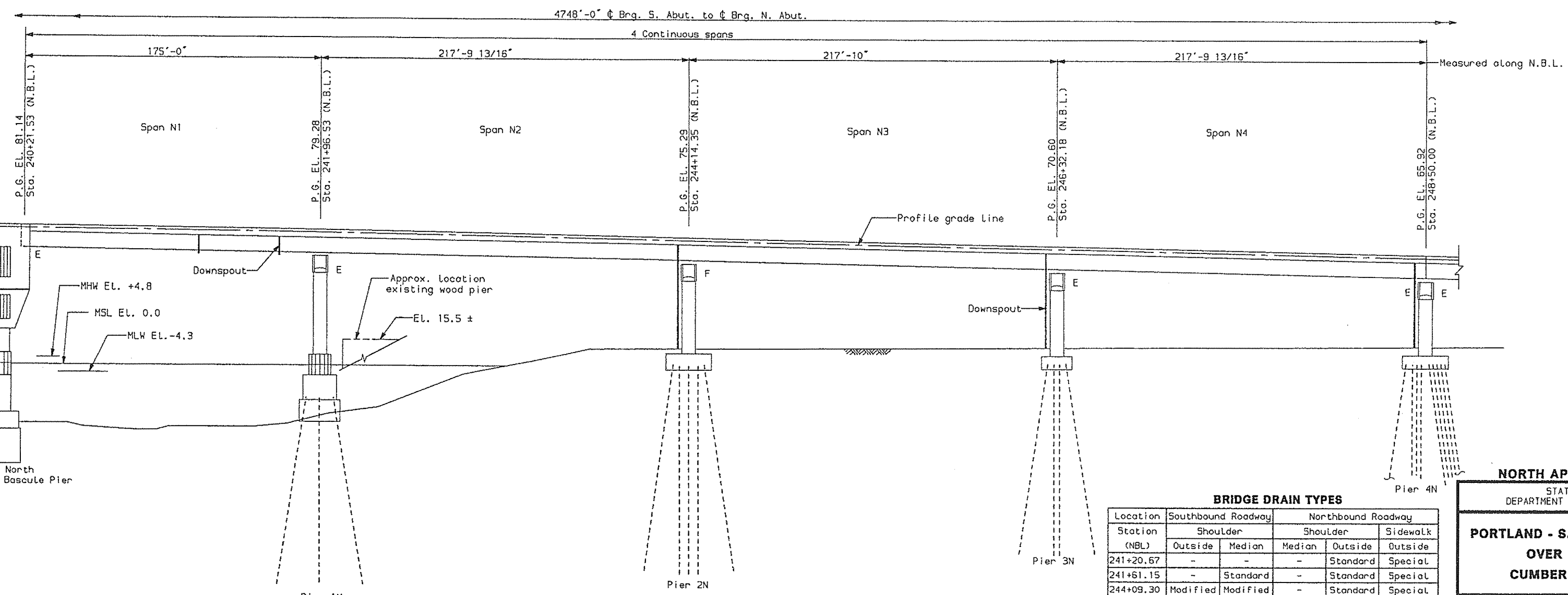
Looking back station for piers 1N, 2N, 3N, 4N and 5N
North Abutment at bearing no. 1 similar
(Walkway parallels finished pier top elevation)



NOTES:
Field verify all locations of walkway anchorages provided in the pier for support of the walkway prior to fabrication.
All walkway metalwork shall be galv. M18
Ladders, posts and railings shall be gal



PLAN



ELEVATION

BRIDGE DRAIN TYPES

Location Station (NBL)	Southbound Roadway		Northbound Roadway		
	Shoulder		Shoulder		Sidewalk
	Outside	Median	Median	Outside	Outside
241+20.67	-	-	-	Standard	Special
241+61.15	-	Standard	-	Standard	Special
244+09.30	Modified	Modified	-	Standard	Special
246+27.13	-	Modified	-	Standard	Special
248+44.95	-	Modified	-	Standard	Special
(Beach St.)					
20+25.67	Modified	-	-	-	-

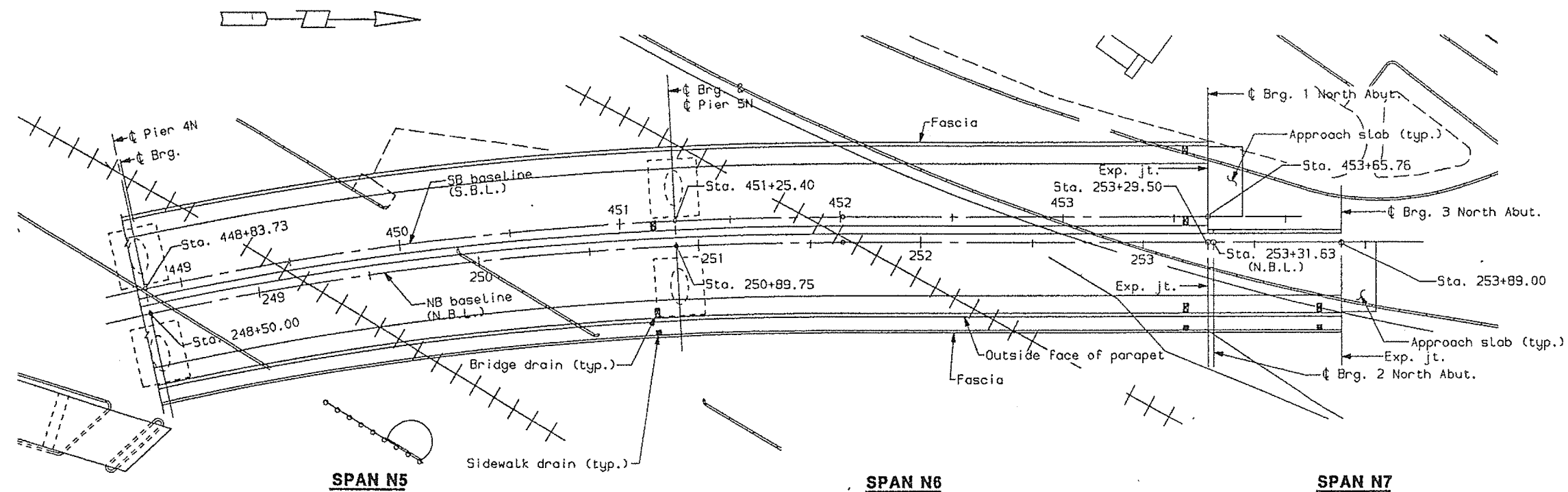
NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND CREEK**

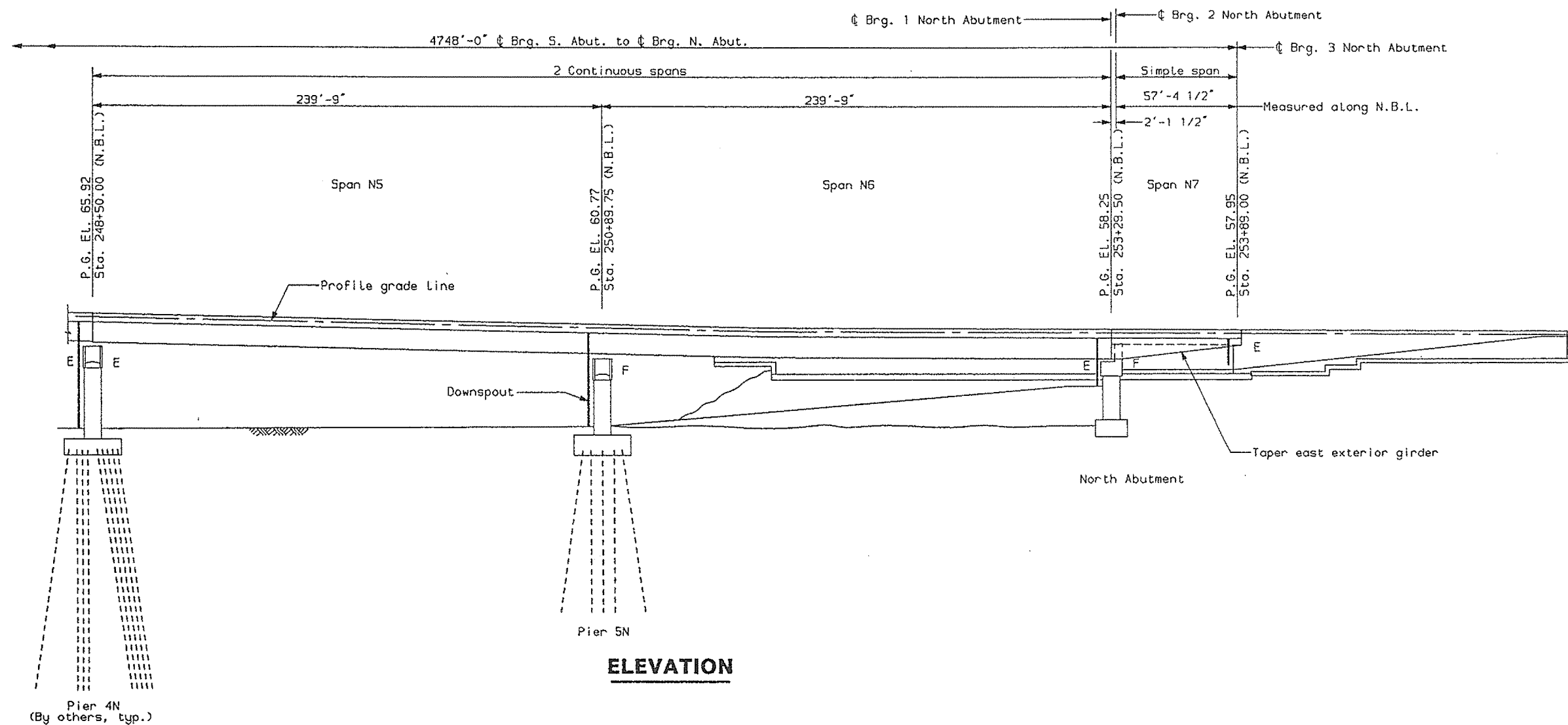
**NORTH APPROACH
DRAINAGE PIER**

DESIGN-CHECKED
CHECKED
REVISION
FIELD CHANGES
PLANS

3-28-94
no. dra in. p. 1



PLAN



ELEVATION

Location	Southbound Roadway		Northbound Roadway	
Station (NBL)	Shoulder		Shoulder	
	Outside	Median	Median	Outside
250+84.75	-	Modified	-	Standard
253+24.50	Modified	Modified	-	Standard
253+82.70	-	-	-	Standard

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRAN

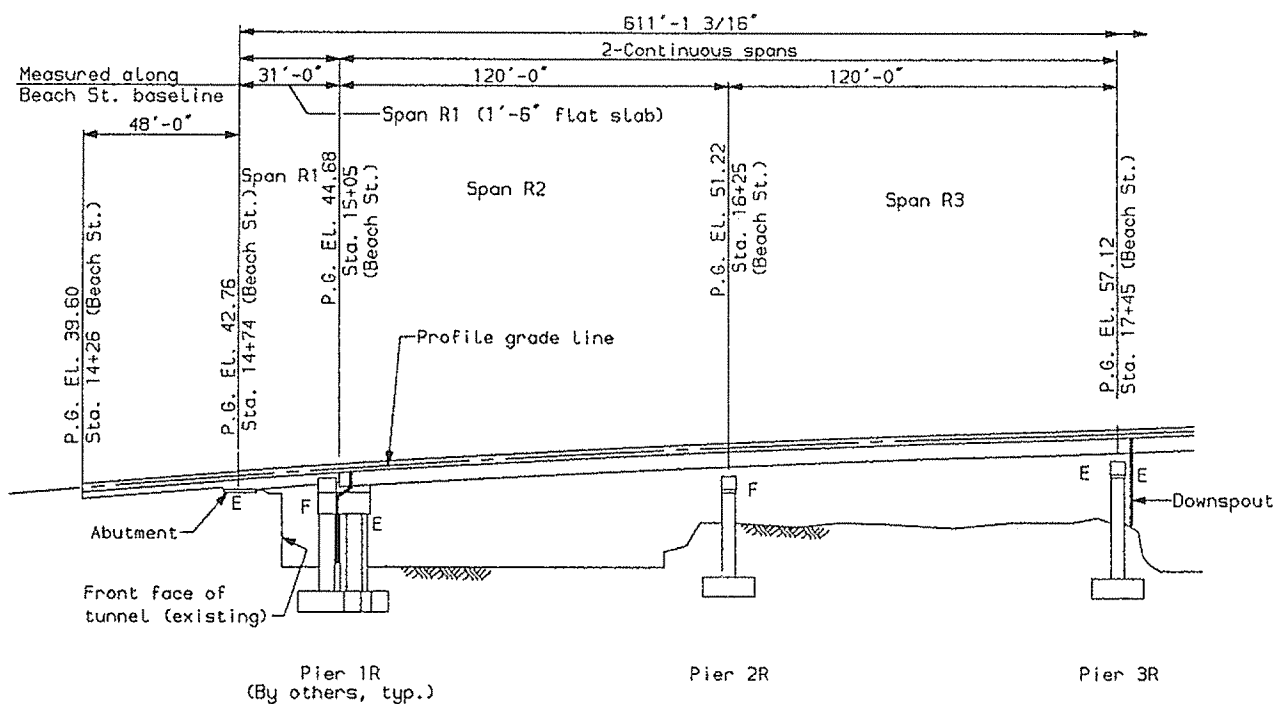
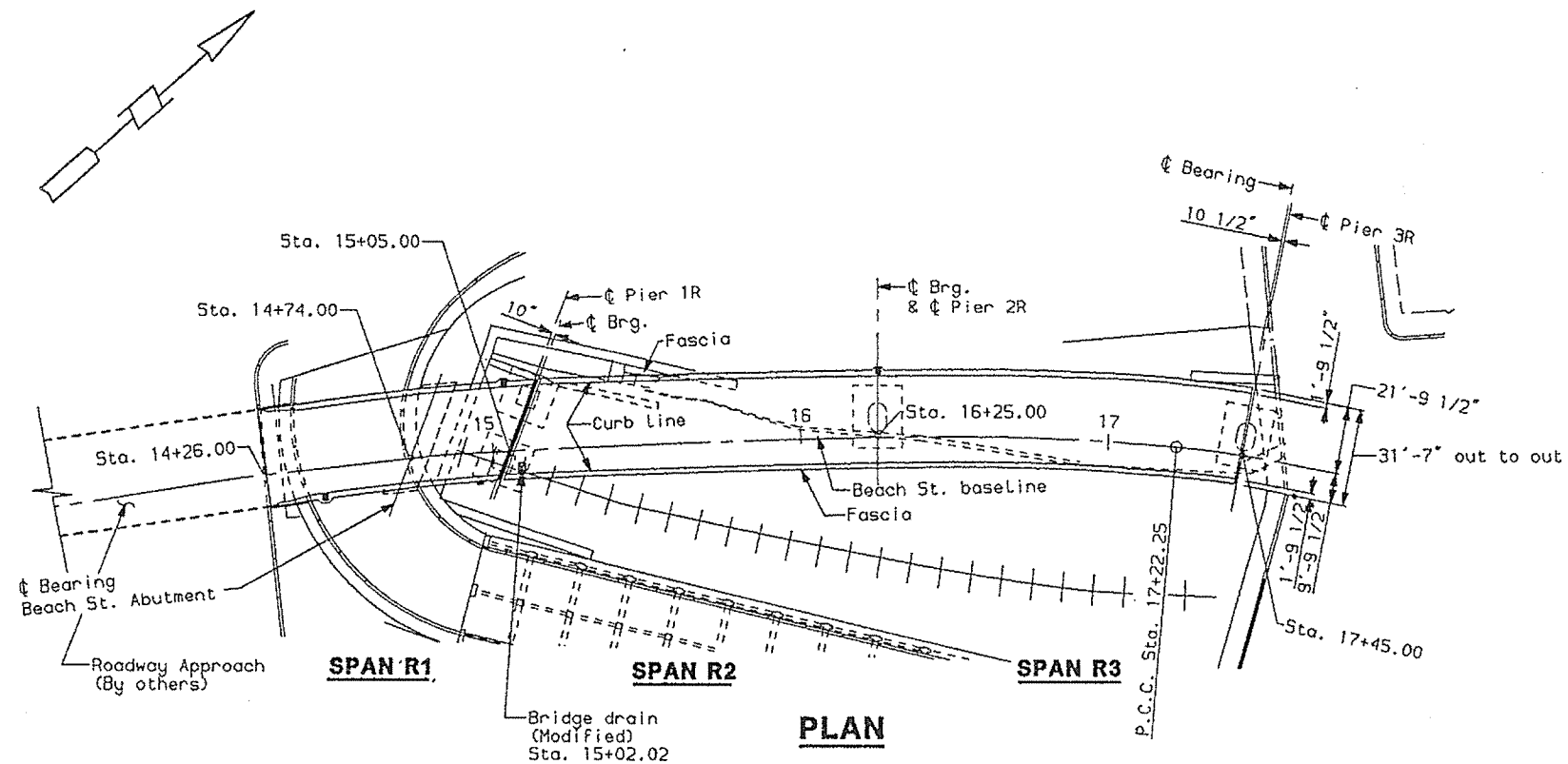
PORTLAND - S. PORT

OVER FORE

CUMBERLAND

**NORTH APP
DRAINAGE P**

SHEET 96 OF 156 AUGUSTA,



NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
OVER FORE RIVER
CUMBERLAND COUNTY**

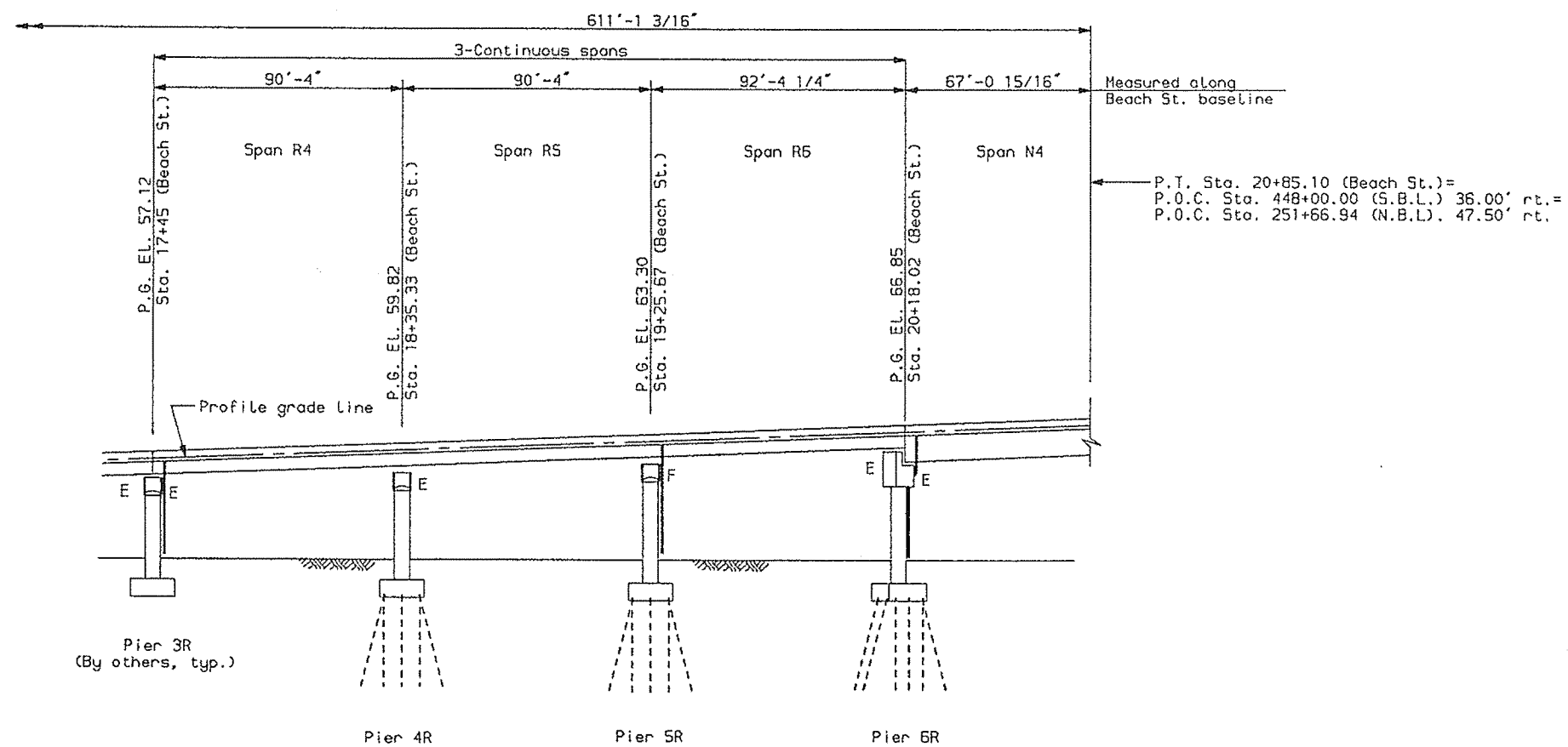
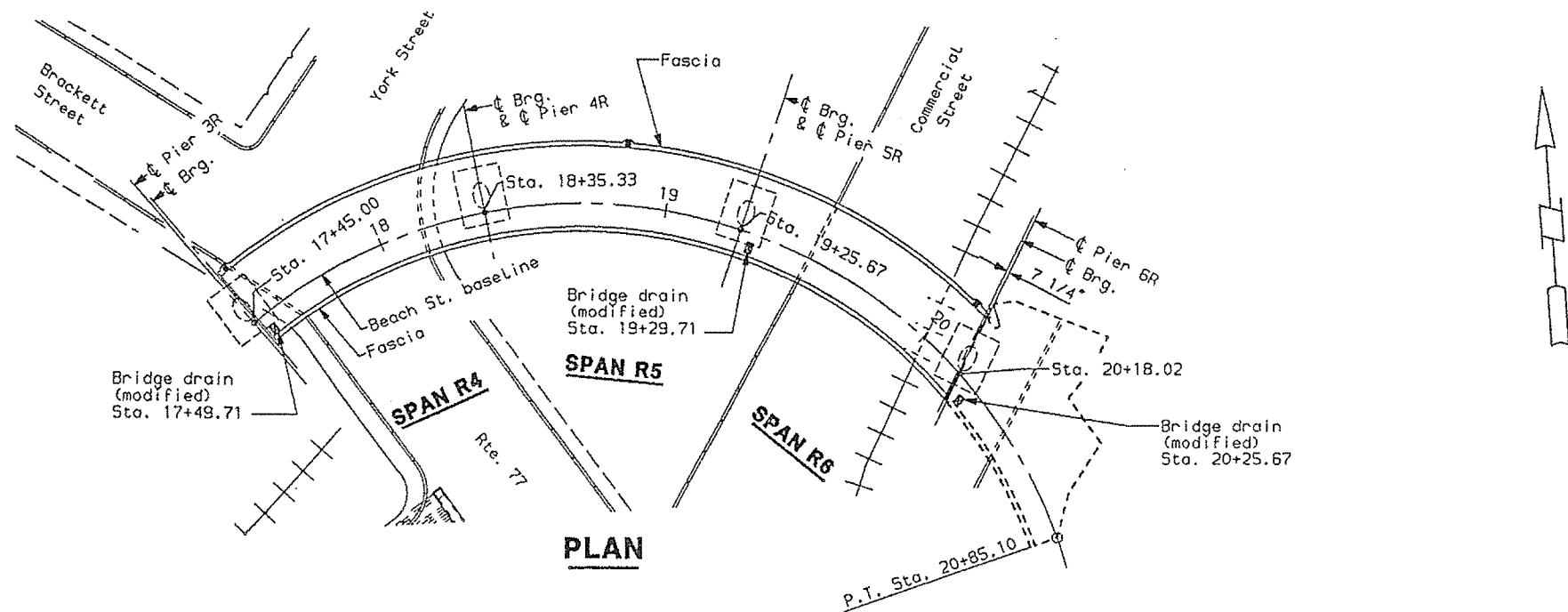
**BEACH STREET
DRAINAGE PROJECT**

SHEET 97 OF 156 AUGUSTA, MAINE

DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES
5-4-94	5-4-94	5-4-94	5-4-94

5-4-94

See drain-pl1



NORTH APPROACH

STATE OF MAI.
DEPARTMENT OF TRANS

**PORTLAND - S. PORTI
OVER FORE R
CUMBERLAND C**

**BEACH STREET
DRAINAGE PL**

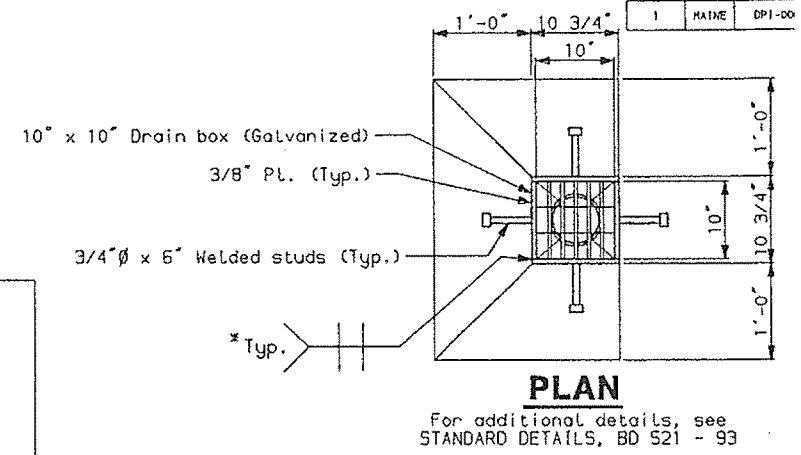
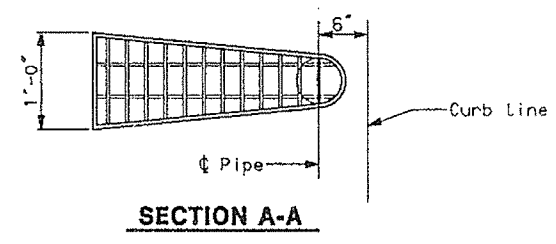
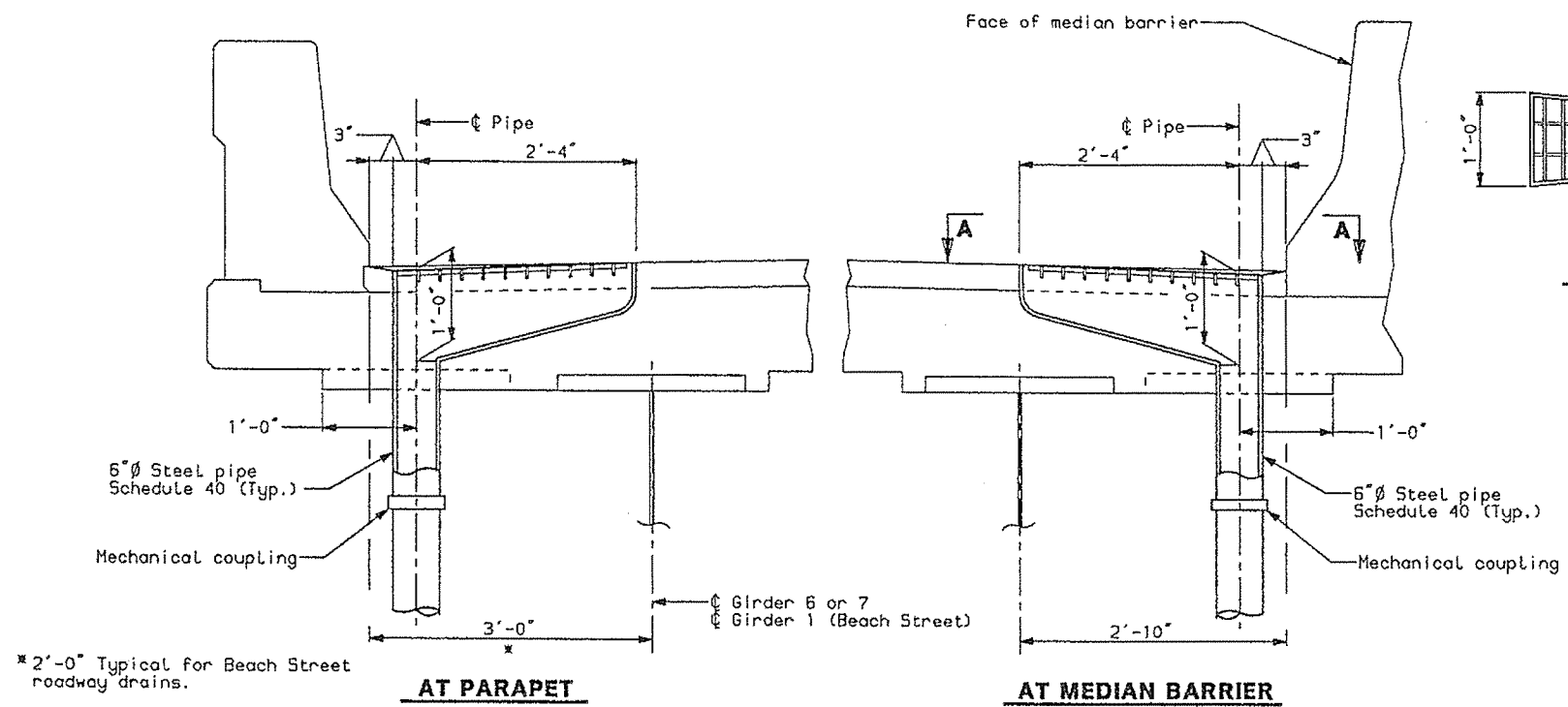
SHEET 98 OF 156 AUGUSTA, I

DESIGN-DETAILED	6-94	EL5
CHECKED	6-94	HC8
REVISION		
FIELD CHANGES		

PLANS

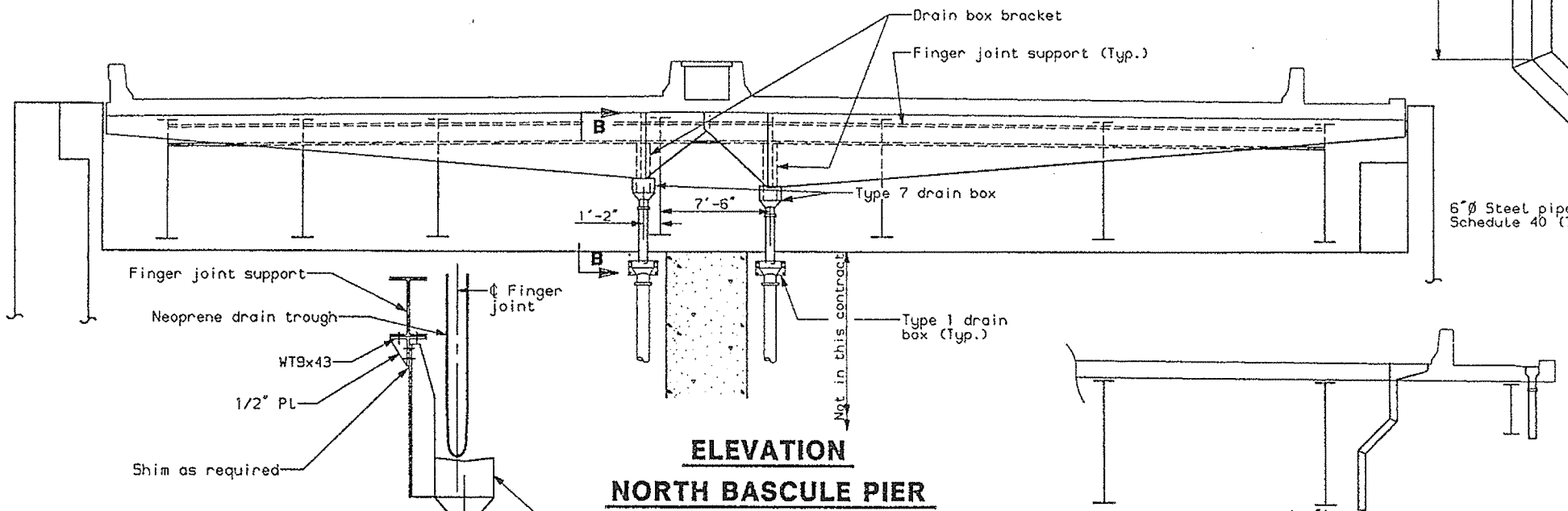
3-28-94

bea.drain-pl2

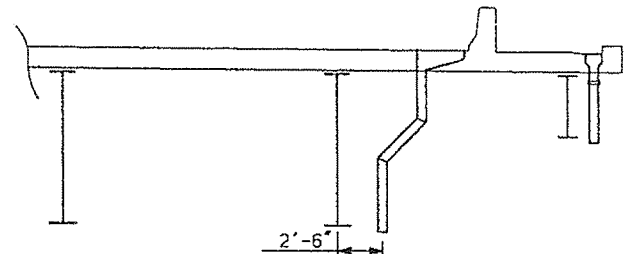


STANDARD BRIDGE DRAIN MODIFIED

Note: For details not shown and for details of standard bridge drain, refer to STANDARD DETAILS, BD 521 - 93



PARTIAL ELEVATION AT PARKING AREA



ROADWAY AND SIDEWALK DRAIN AT PIER

(Southbound, median and parking area drains similar)

NOTES:

Drain boxes and anchoring hardware shall be galvanized M183, unless noted.
Piping shall be A53, galvanized.
Field verify locations of anchor bolts provided in the pier strut and columns for support of the drainage system prior to fabrication.
* Or other approved weld.

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

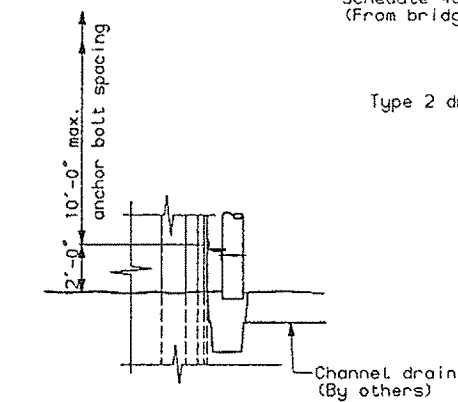
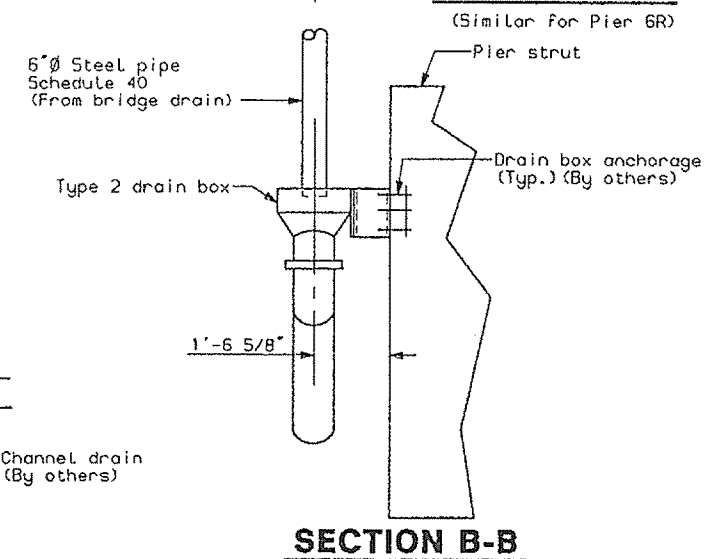
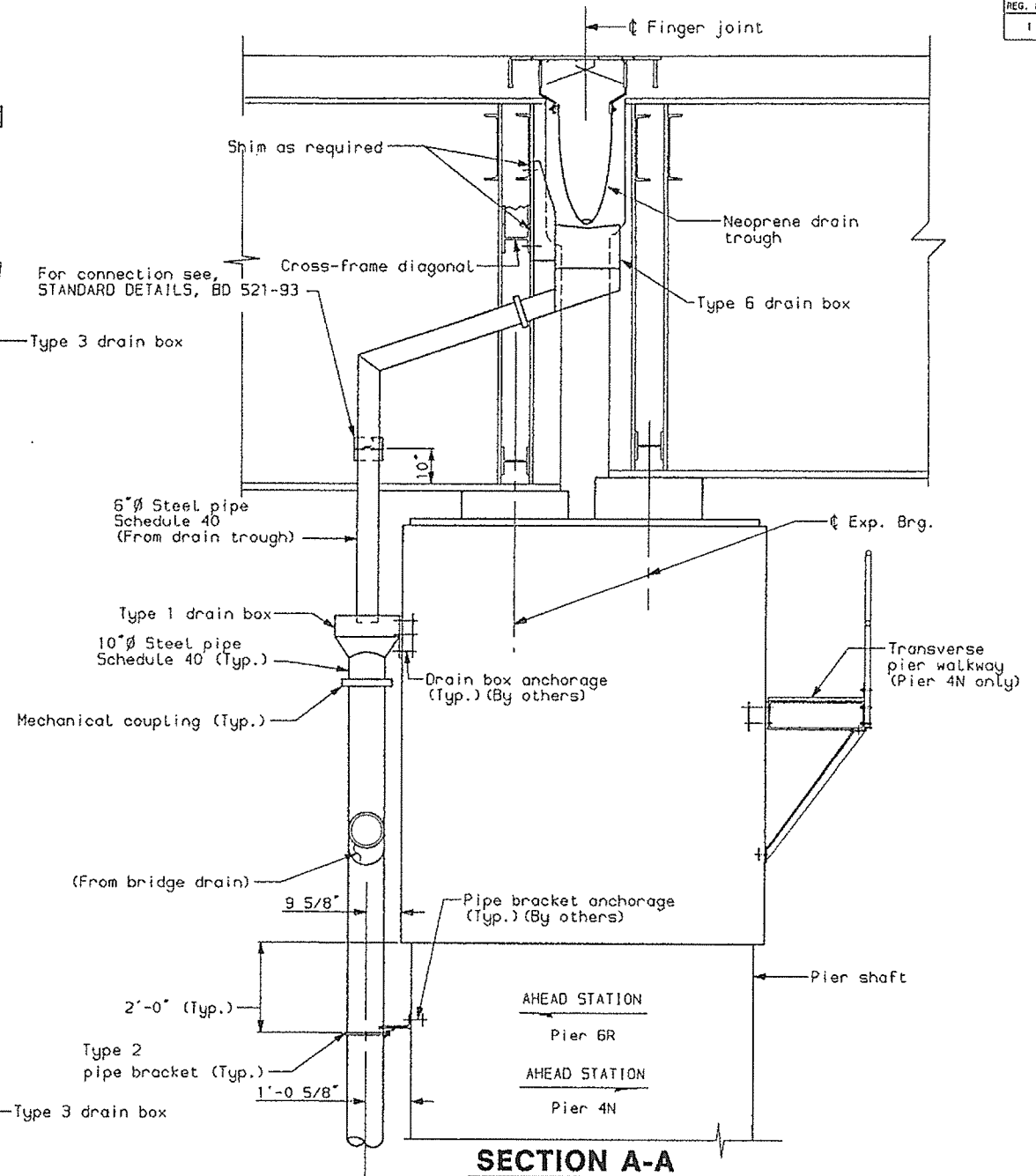
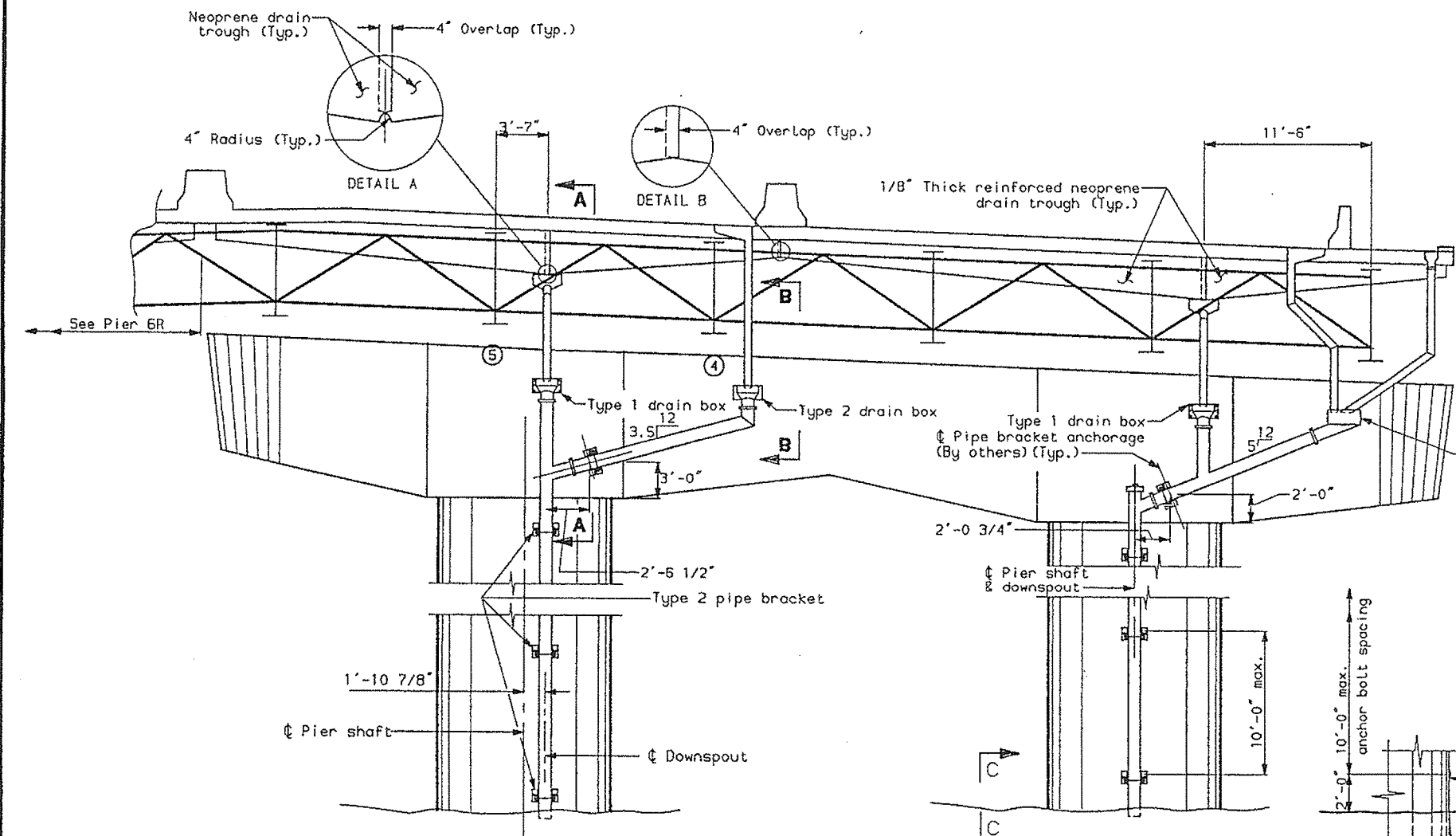
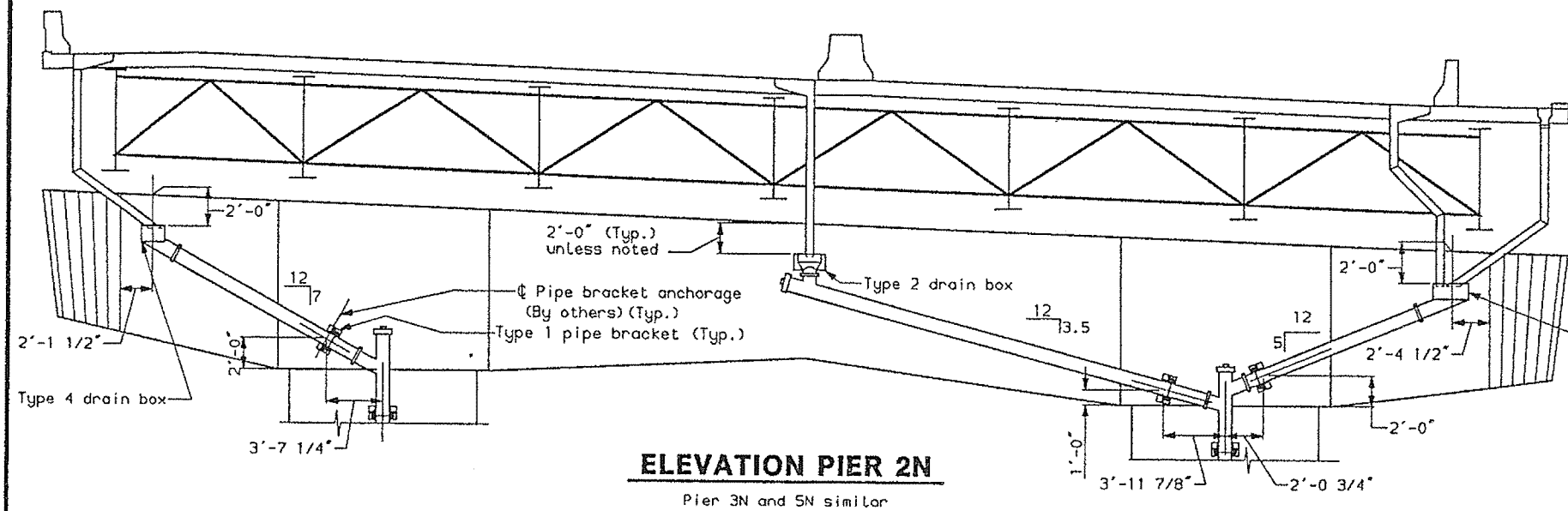
**PORTLAND - S. PORTLAND
OVER FORD ROAD
CUMBERLAND COUNTY**

DRAINAGE DETAILS

DESIGN-CHECKED	HEB	SLH	EAR	6-94
CHECKED	HEB	SLH	EAR	6-94
REVISION				
FIELD CHANGES				

PLANS

3-28-94
na.draft



SECTION C-C
(Typical detail, all land piers)

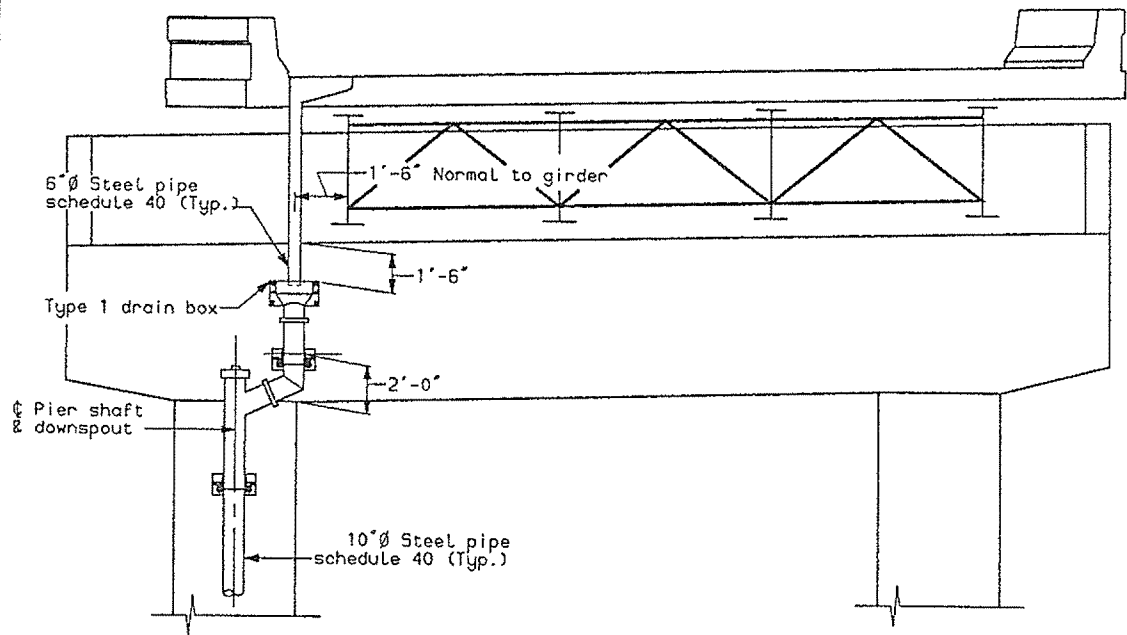
NOTES:
See DRAINAGE DETAILS - 1

NORTH APPROACH
STATE OF MA
DEPARTMENT OF TRAN
PORTLAND - S. PORT
OVER FORE
CUMBERLAND
DRAINAGE DE
SHEET 100 OF 156 AUGUSTA.

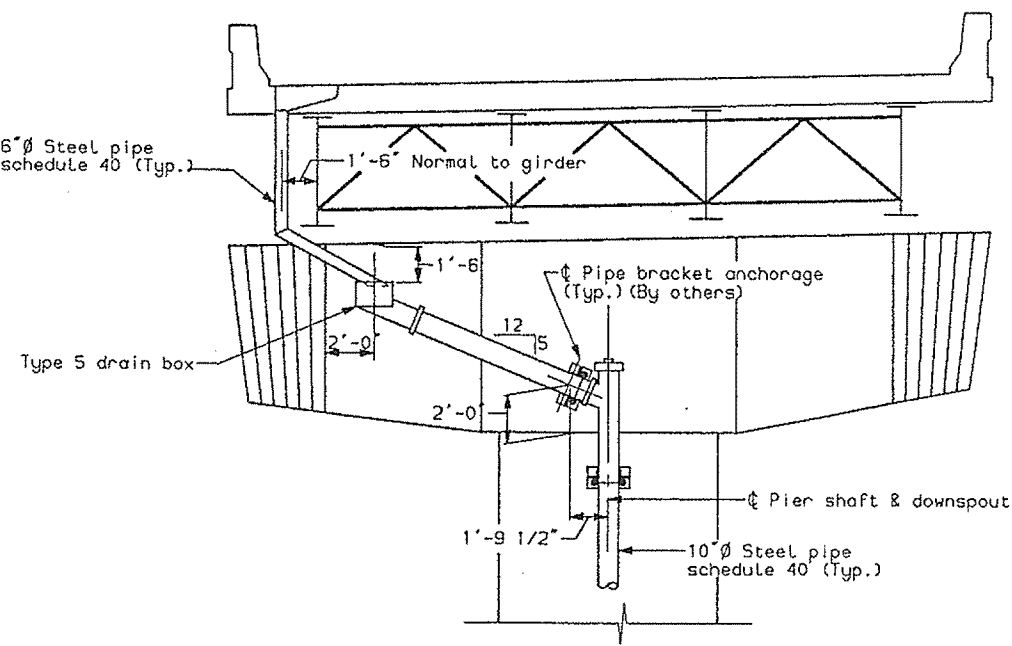
PM	DESIGN	BY	DATE
PLANS	DESIGN-DETAILED	MCH	6-94
	CHECKED	SLH	6-94
	REVISION	HCB	
	FIELD CHANGES		

5

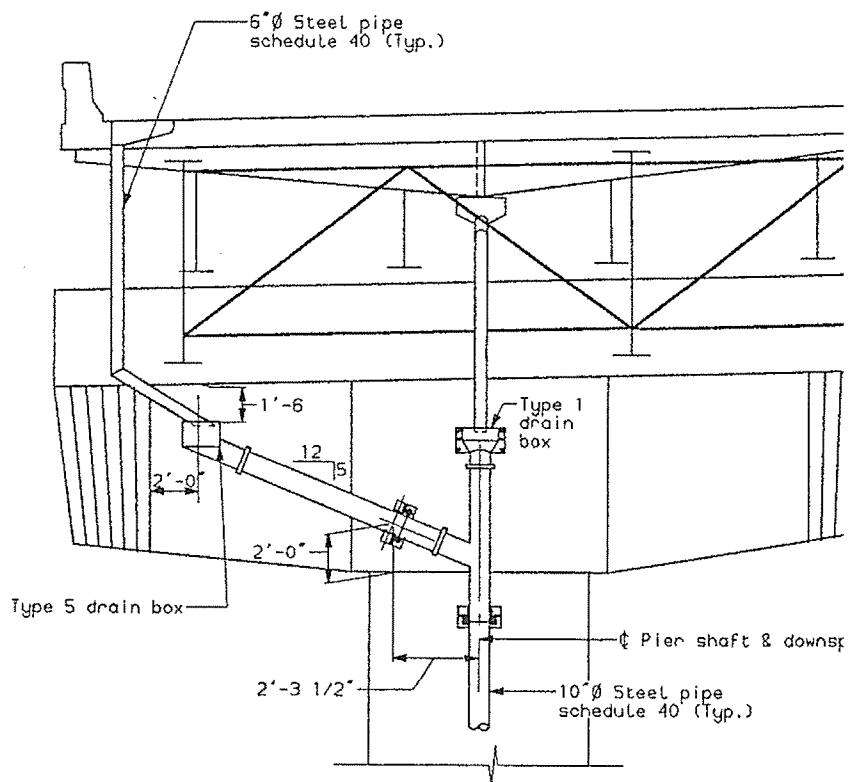
3-28-94



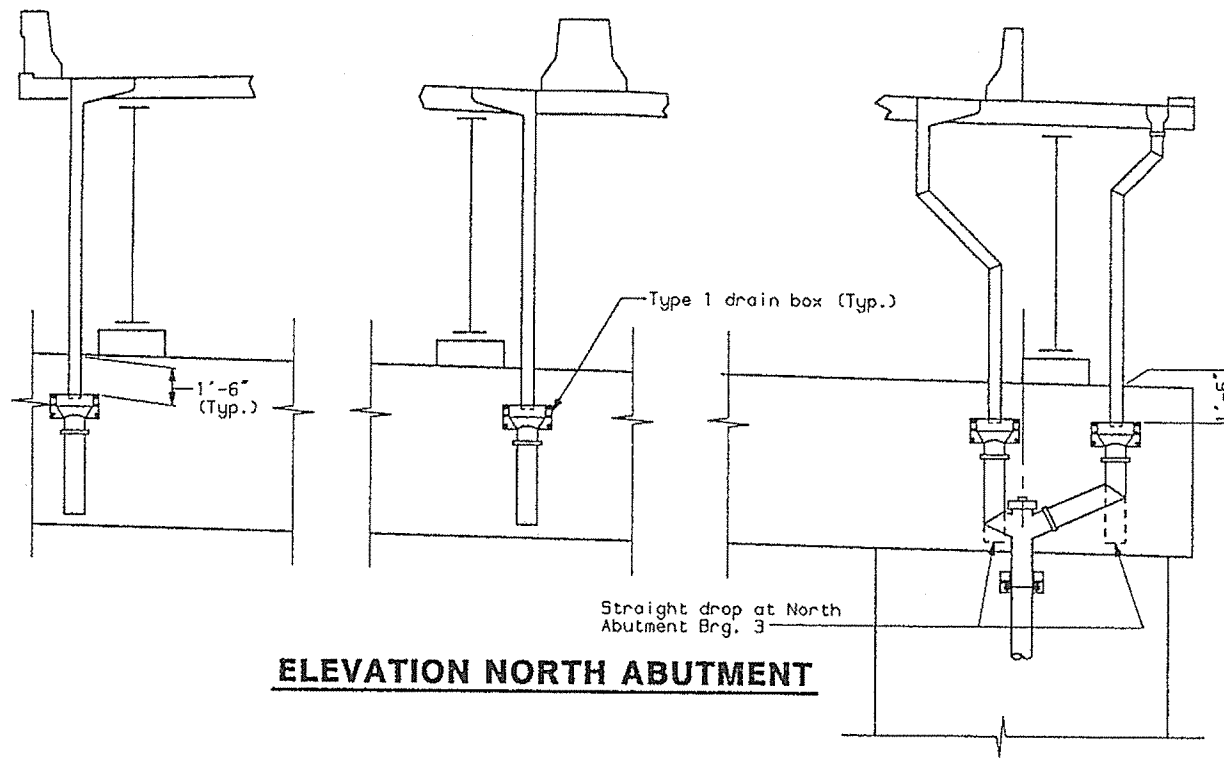
ELEVATION PIER 1R
(Looking back station)



ELEVATION PIER 3R
Pier 5R similar
(Looking back station)

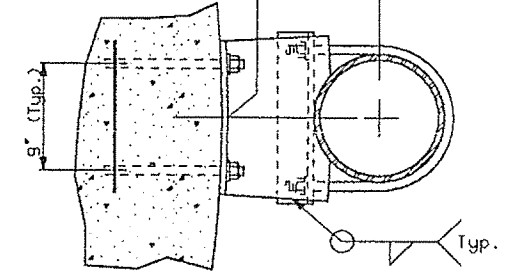


ELEVATION PIER 6R
(Looking back station)



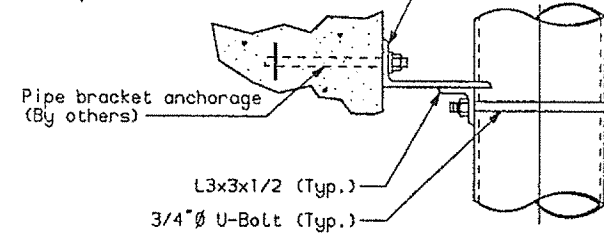
ELEVATION NORTH ABUTMENT

1'-0 5/8" at pier shaft locations
(Typ. unless noted)
1'-3 5/8" at pier shafts 3R, 5R & 6R
9 5/8" at pier strut locations



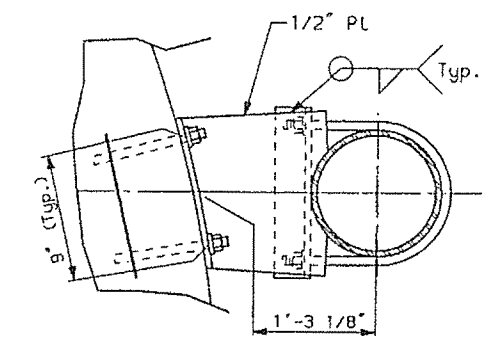
PLAN

L12x4x1/2 (cut) (bent as required)
for Beach St. Pier 3R, 5R & 6R
column locations
L9x4x1/2 (cut) (bent as required)
for pier column locations
L6x4x1/2 (cut)
for pier strut locations



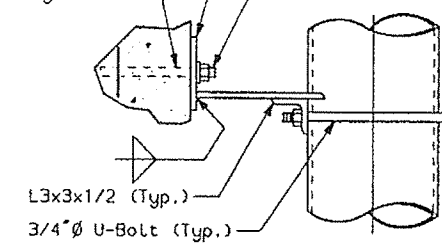
ELEVATION

TYPE 1 PIPE BRACKET DETAIL



PLAN

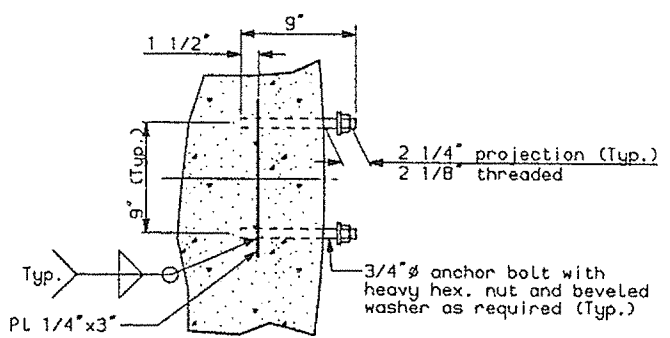
PL 1/2x6x1'-0"
(Bent as required)
Pipe bracket anchorage
(Typ.) (By others)



ELEVATION

TYPE 2 PIPE BRACKET DETAIL

NOTES:
See DRAINAGE DETAILS - 1.



PIPE BRACKET ANCHORAGE

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

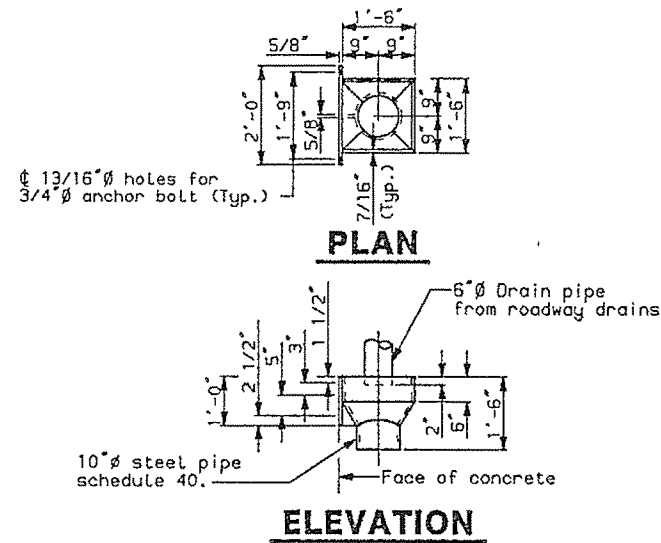
**PORTLAND - S. PORTLAND
OVER FORD CUMBERLAND C**

DRAINAGE DET.

DESIGN-Detailed
CHECKED
REVISION
FIELD CHANGES

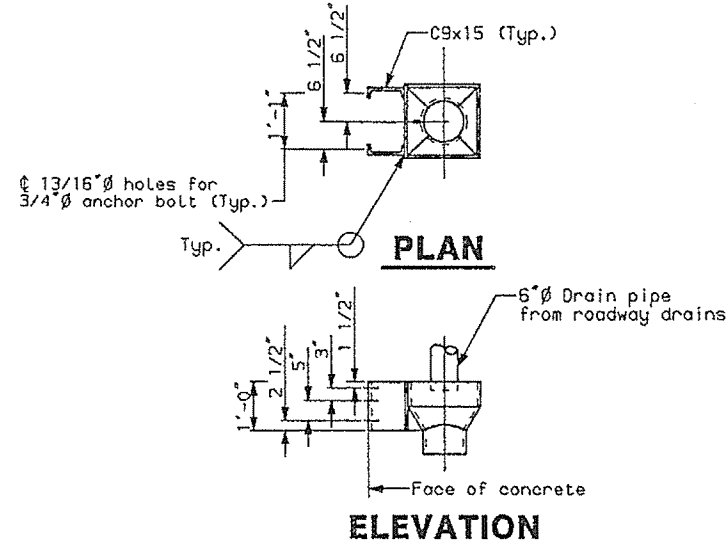
PLANS

3-14-94
no. drawing



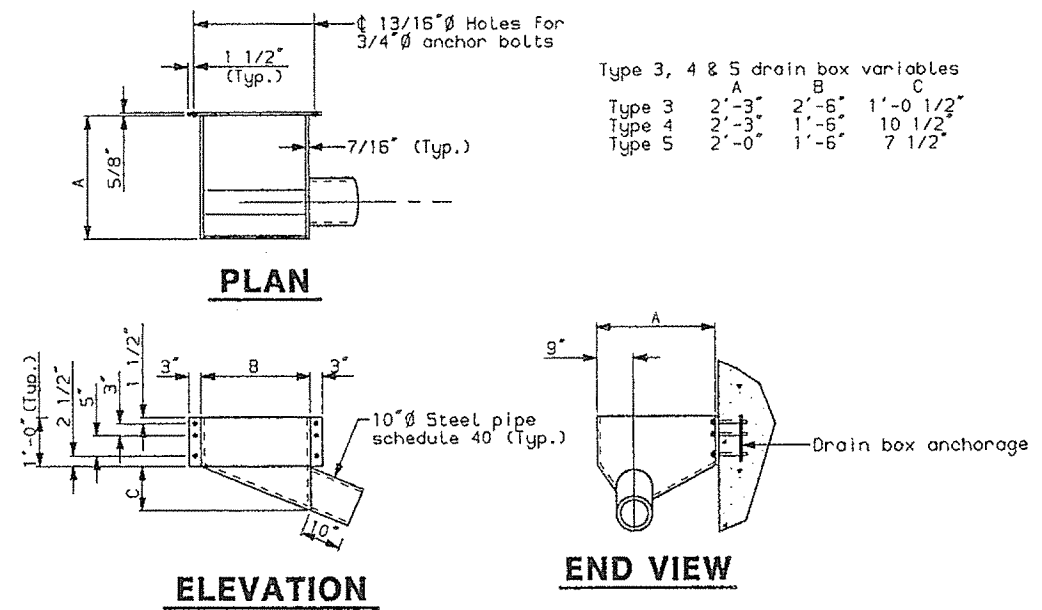
TYPE 1 DRAIN BOX

(Drain box anchorage not shown for clarity)



TYPE 2 DRAIN BOX

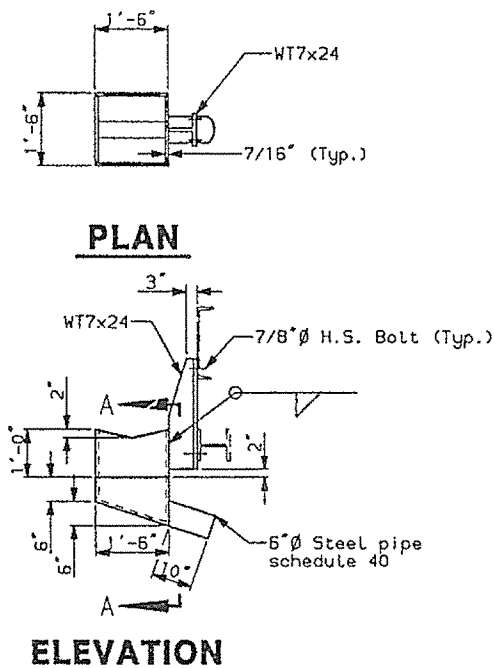
(For details not shown, see Type 1 drain box)
(Drain box anchorage not shown for clarity)



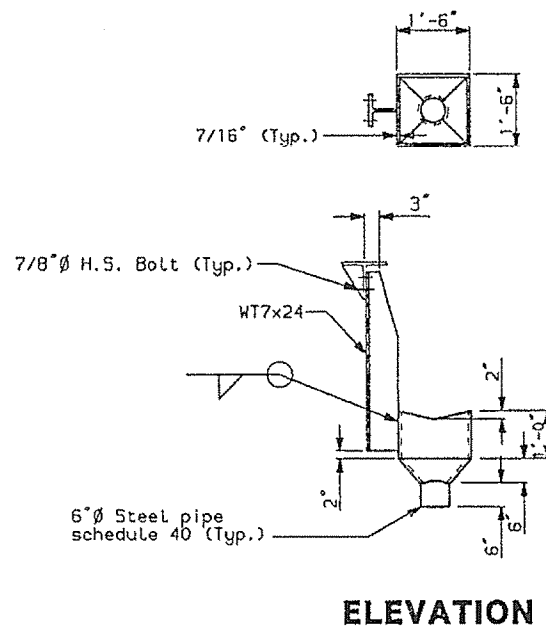
TYPE 3, 4 & 5 DRAIN BOX

Type 3, 4 & 5 drain box variables

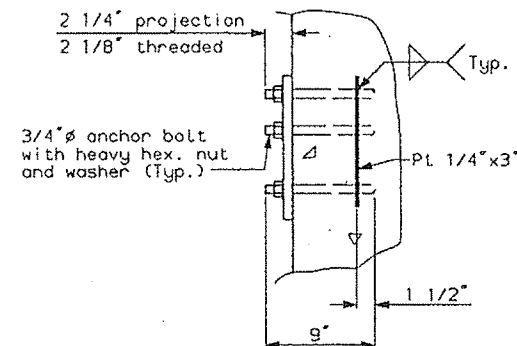
	A	B	C
Type 3	2'-3"	2'-6"	1'-0 1/2"
Type 4	2'-3"	1'-6"	10 1/2"
Type 5	2'-0"	1'-6"	7 1/2"



TYPE 6 DRAIN BOX



TYPE 7 DRAIN BOX



NOTES:

See DRAINAGE DETAILS -

NORTH APPROACH

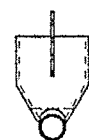
STATE OF MA
DEPARTMENT OF TRAN

**PORTLAND - S. PORT
OVER FORE
CUMBERLAND**

DRAINAGE DET

SHEET 102 OF 156 AUGUSTA,

SECTION A-A



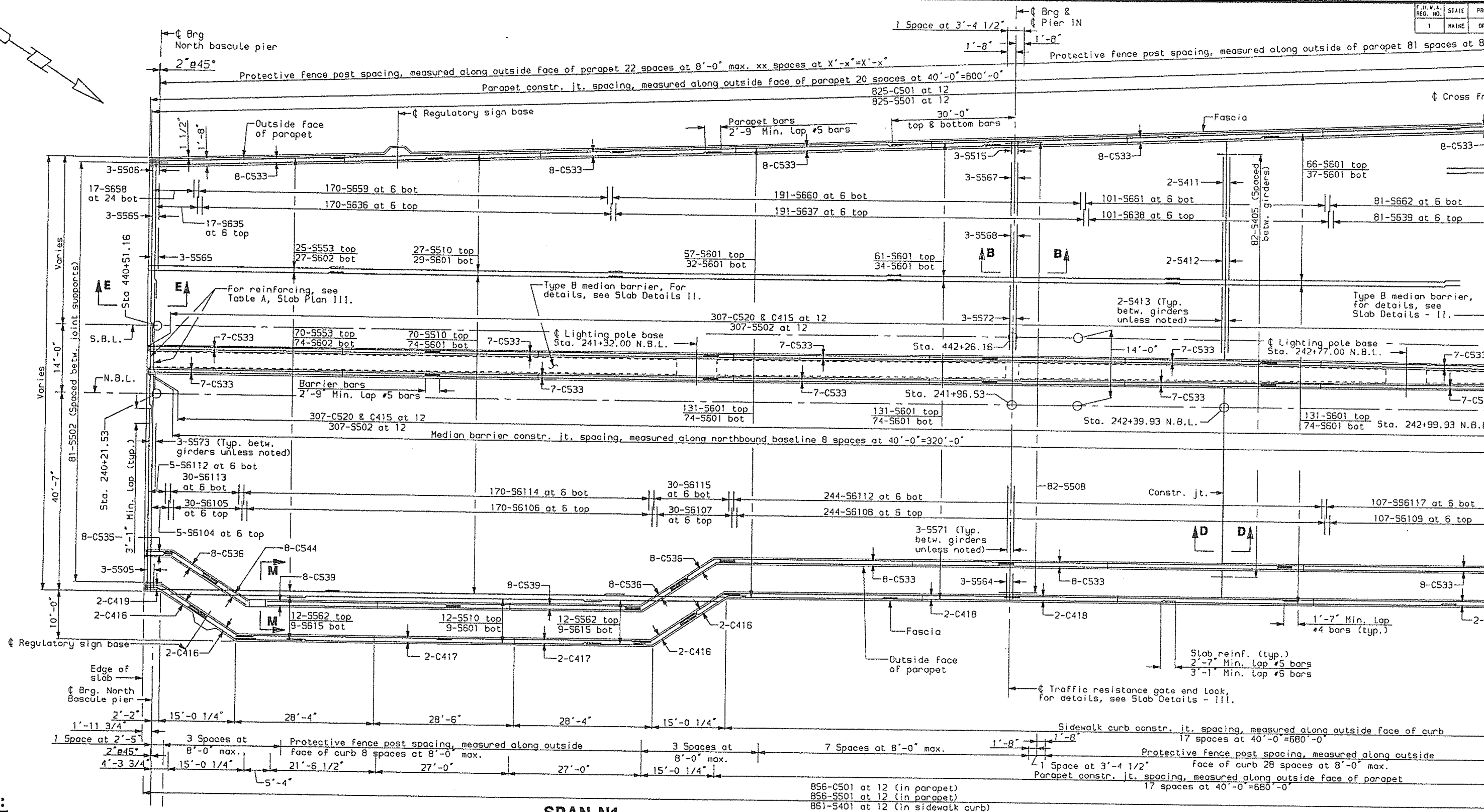
ELEVATION

ELEVATION

PROJ.	DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES
PLANS				

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16.0
17.0
18.0
19.0
20.0
21.0
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92.0
93.0
94.0
95.0
96.0
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98.0
99.0
100.0

na.dra/n4
3-9-94



NOTES:

All reinforcing steel bars shall be epoxy coated.

Adjust reinforcing steel to fit around the drains in a manner approved by the Engineer. Do not cut transverse reinforcing bars.

Provide 2-inch concrete cover on reinforcing steel bars, unless otherwise shown.

Form a 1" V-groove on the fascias at the horizontal joint between the curb or parapet and the slab.

For all spans deck slab concrete placement shall be done according to State of Maine BDM page 1060(1). Continuous placement of the deck slab concrete in either direction will be permitted except for Spans N5-N6 and R2-R3, however, if staged placement is used follow the sequence shown in the plans.

For placement of deck slab concrete in Spans N5-N6 and R2-R3 follow the sequence shown in the plans.

SPAN N1

Screed rails for deck slab finishing machine wheel loads to be supported directly above girders.

Keep concrete plastic within a placement until the entire placement is complete.

Apply protective coating for concrete surfaces to the following areas in accordance with Sections 515.02 and 711.05 of the Standard Specifications:

- All exposed surfaces of the concrete barriers.
- All exposed surfaces of the concrete sidewalk including the curb.
- Each fascia down to the drip notch.
- Tops of abutment backwalls and one foot below tops of abutment backwalls.

SPAN N2

All concrete in the parapets, median barrier, and sidewalk wearing surface shall contain a silica fume additive in accordance with Section 701.12 of the Standard Specifications.

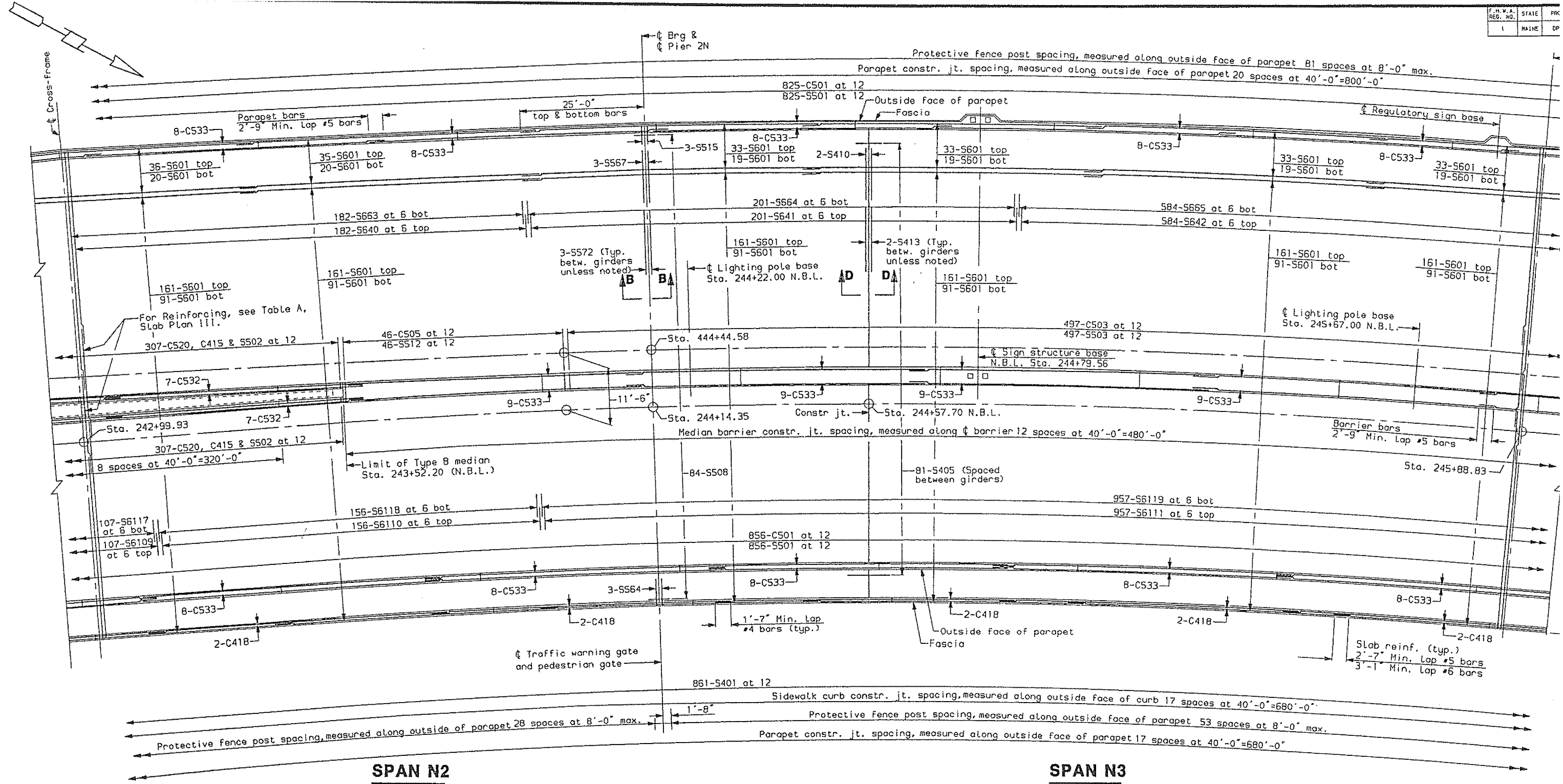
Supporting devices (diagonal braces) for support of deck slab forming shall extend to the junction of the web and bottom flange. Submit working drawings of the proposed forms and supporting system for approval in accordance with section S02.20 of the standard specifications.

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE RIVER
CUMBERLAND COUNTY

SLAB PL.
SPANS N1-N2



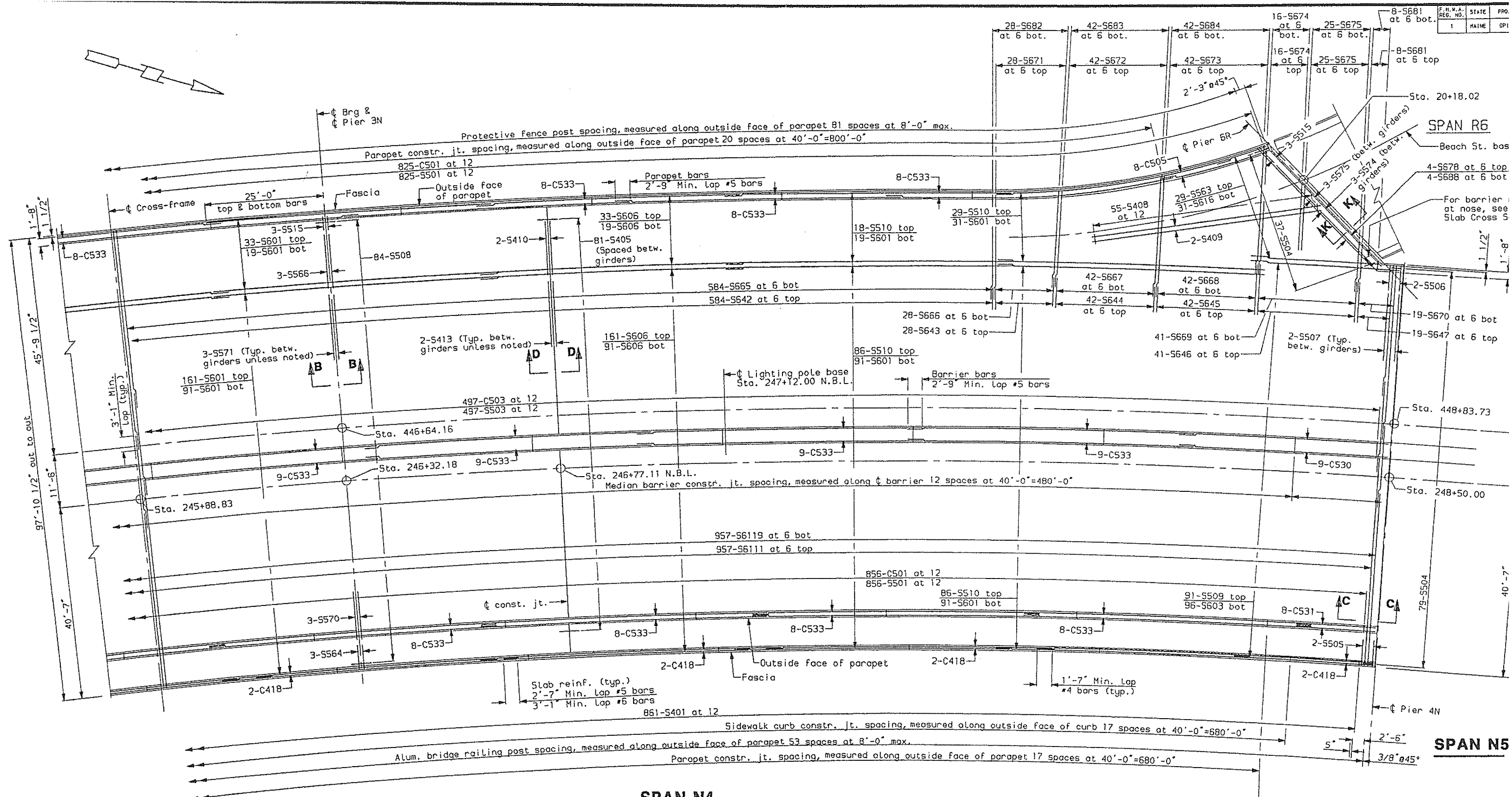
← Bearing North bascule pier Sta. 240+21.53 (N.B.L.)	← Constr. jt. Sta. 242+39.93 (N.B.L.)	← Constr. jt. Sta. 244+57.70 (N.B.L.)	← Constr. jt. Sta. 246+77.11 (N.B.L.)	← Pier 4N and Pier 6R Sta. 248+50.00 (N.B.L.)
④ or ①	③ or ②	② or ③	① or ④	

SLAB PLACEMENT SEQUENCE

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORT OVER FORD CUMBERLAND
SLAB PI SPANS N1-
SHEET 104 OF 156 AUGUSTA, ME

PROJECT	DESIGN ENGINEER	DATE
PLANS	HCJ	6-94
	CJB	5-94
	REVISION	
	FIELD CHANGES	

SL 10104-2



SPAN N3

SPAN N4

SPAN N5

SPAN R6

Table A					
Top Reinforcement			Bottom Reinforcement		
Mark	No.	Location (along N.B.L.)	Mark	No.	Location (along N.B.L.)
S690	17	STA. 240+21.53 TO STA.240+30.372	S697	17	STA. 240+21.53 TO STA.240+30.372
S691	170	STA. 240+30.372 TO STA.241+14.62	S698	170	STA. 240+30.372 TO STA.241+14.62
S692	191	STA. 241+14.62 TO STA.242+10.00	S699	191	STA. 241+14.62 TO STA.242+10.00
S693	101	STA. 242+10.00 TO STA.242+60.00	S6100	101	STA. 242+10.00 TO STA.242+60.00
S694	142	STA. 242+60.00 TO STA.243+30.00	S6101	142	STA. 242+60.00 TO STA.243+30.00
S695	121	STA. 243+30.00 TO STA.243+90.00	S6102	121	STA. 243+30.00 TO STA.243+90.00
S696	957	STA. 243+90.00 TO STA.248+50	S6103	957	STA. 243+90.00 TO STA.248+50

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT

OVER FORE CUMBERLAND

SLAB PI SPANS N1-

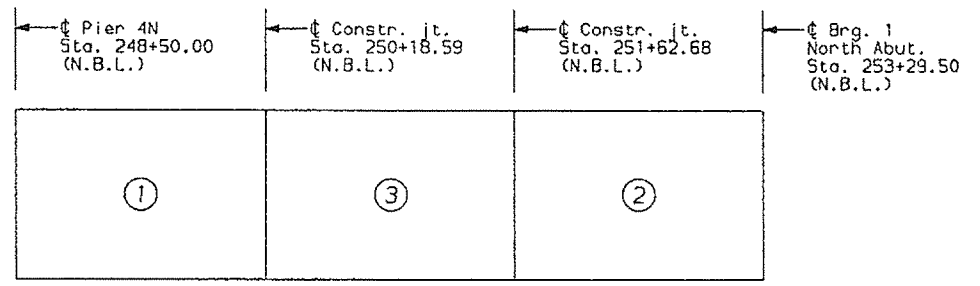
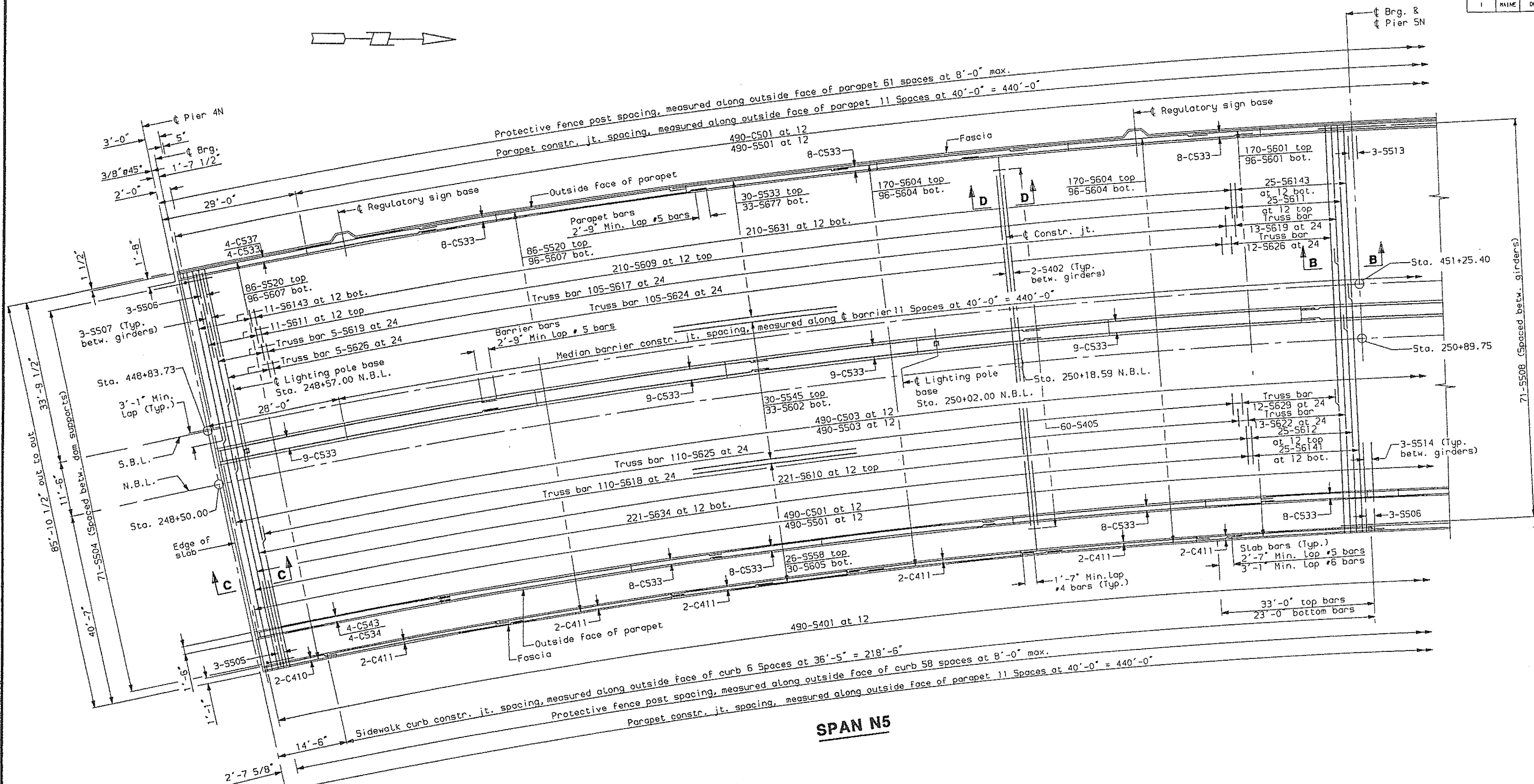
SHEET 105 OF 156 AUGUSTA, ME

PLANS

DESIGN ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	

SL 1014-3

PROJECT	DESIGN ENGINEER	DATE
PLANS	MC1	6-94
	HC8	6-94
	CHECKED	
	REVISION	
	FIELD CHANGES	



SLAB PLACEMENT SEQUENCE

NORTH APPROACH

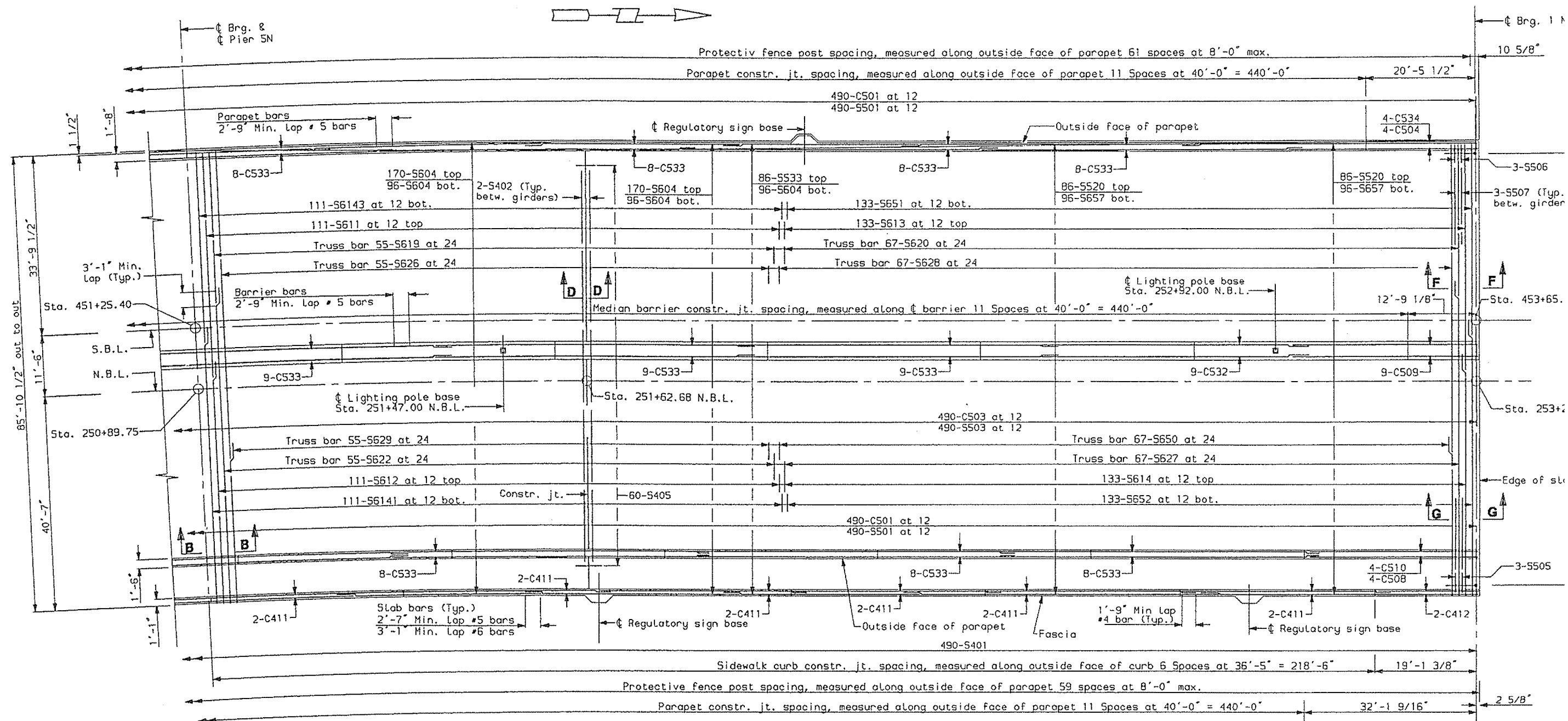
STATE OF ME
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
OVER FORD
CUMBERLAND**

**SLAB P1
SPANS N5**

SHEET 106 OF 156 AUGUSTA, ME

AL 2506-1



SPAN N6

PLANS	PROJECT	DESIGN ENGINEER	BY	DATE
		DESIGN-DETAILED	MCJ	6-94
		CHECKED	HCB	6-94
		REVISION		
		FIELD CHANGES		

10:41:32

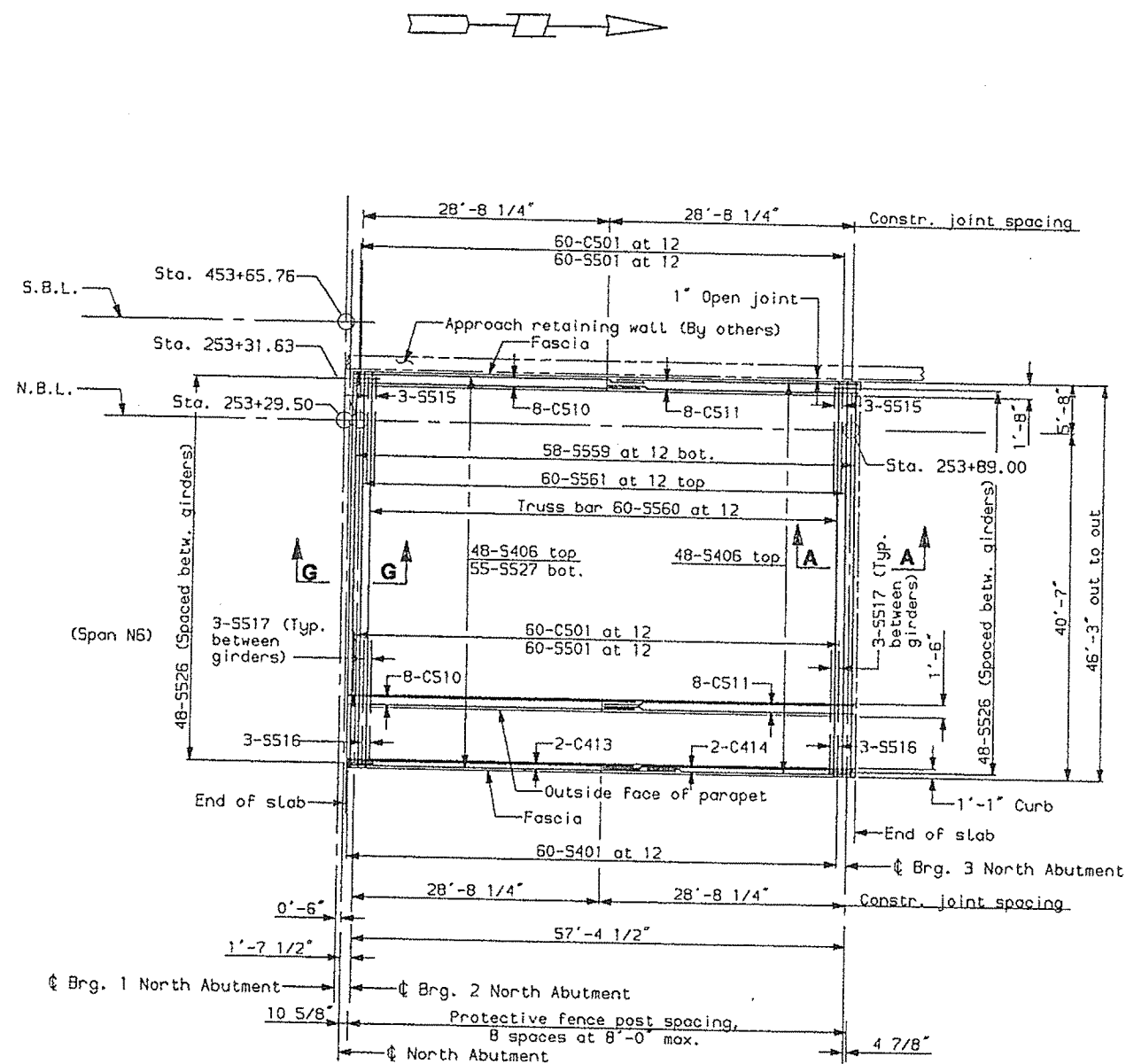
86-0506-2

NORTH APPROACH

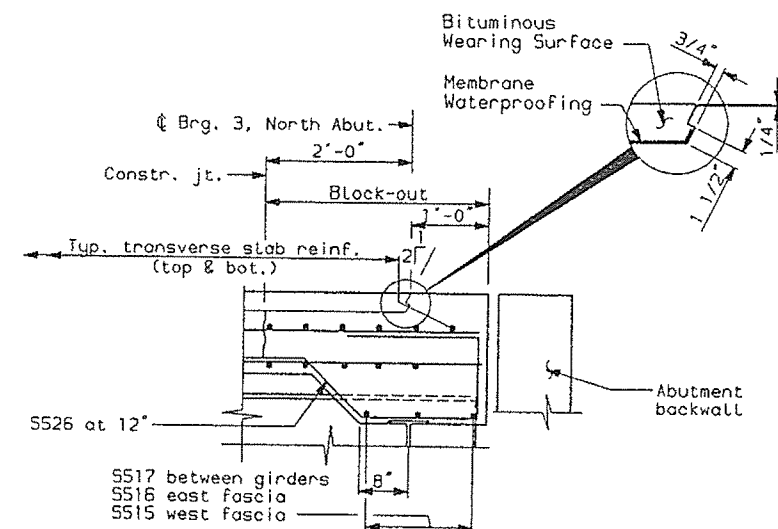
STATE OF M
DEPARTMENT OF TRA

PORTLAND - S. POR
OVER FORE
CUMBERLAND

SLAB P
SPANS N5

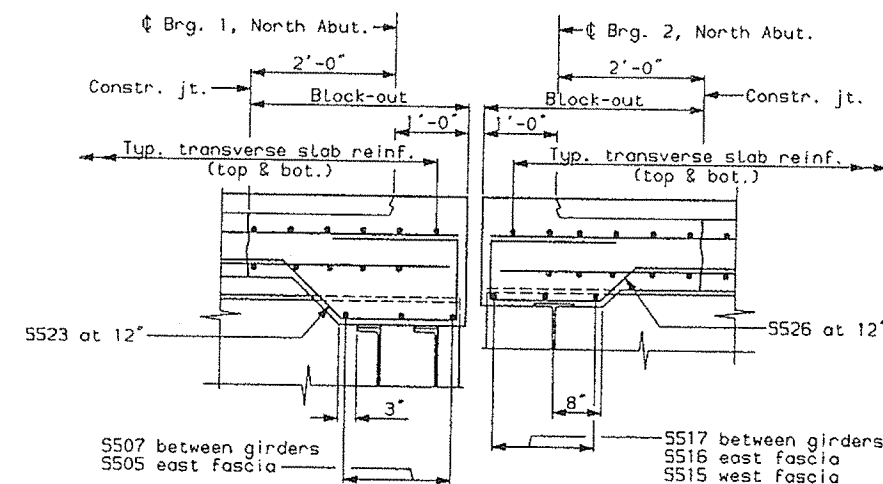


SPAN N7



SECTION A-A

(Joint details have been omitted for clarity)



SECTION G-G

(Joint details have been omitted for clarity)

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRAN

**PORTLAND - S. PORT
OVER FORE
CUMBERLAND**

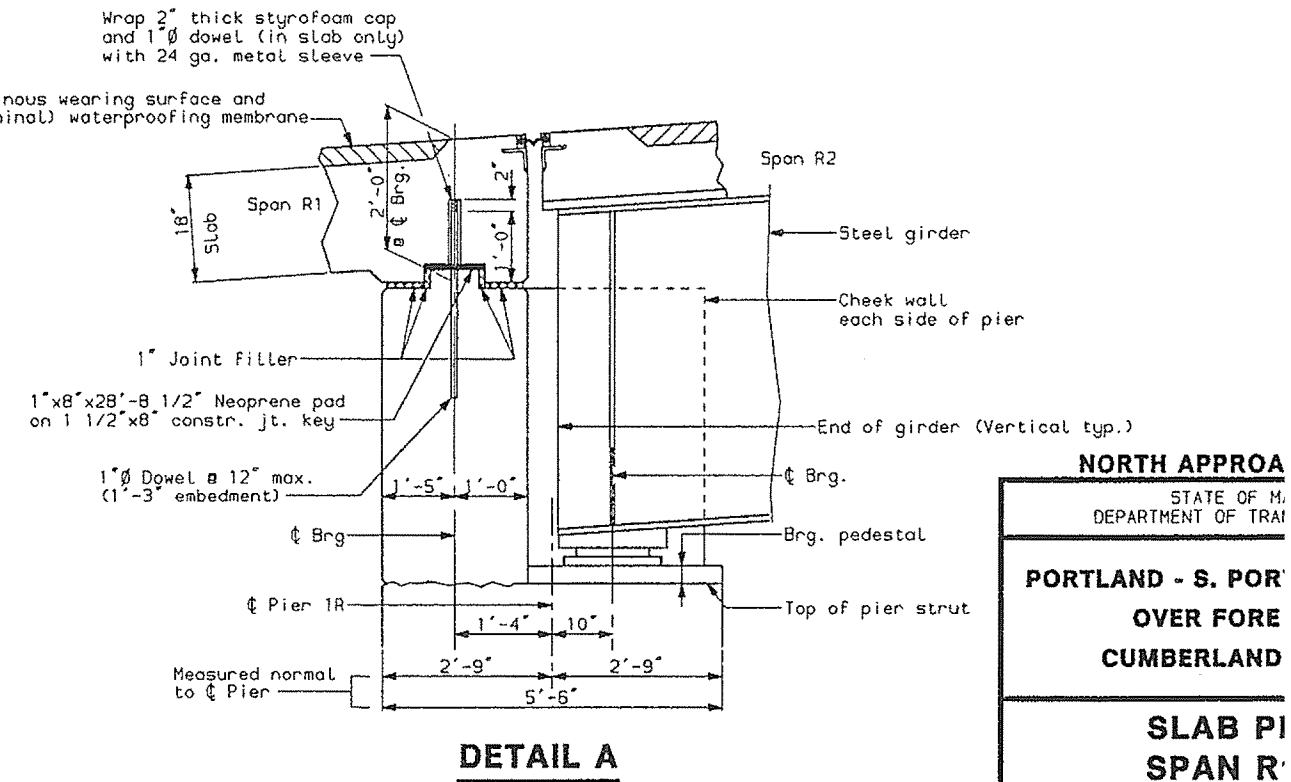
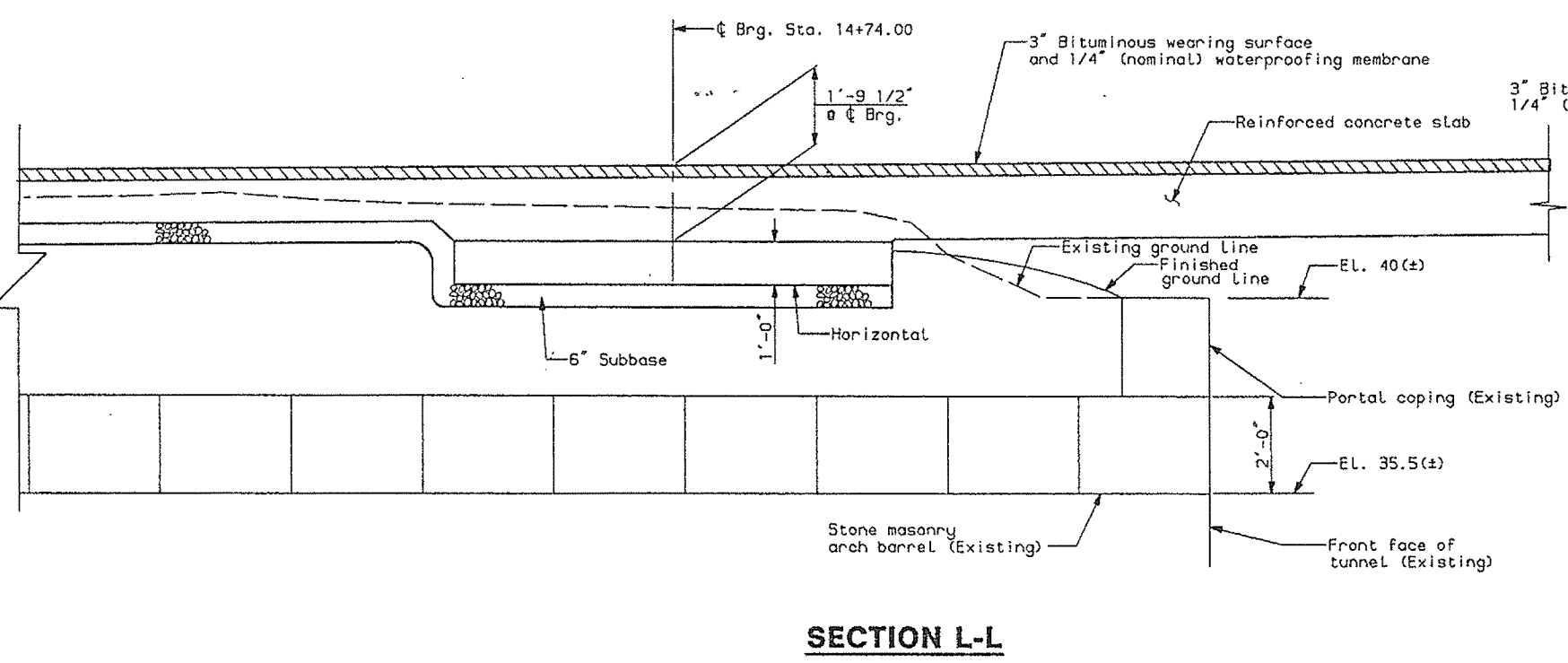
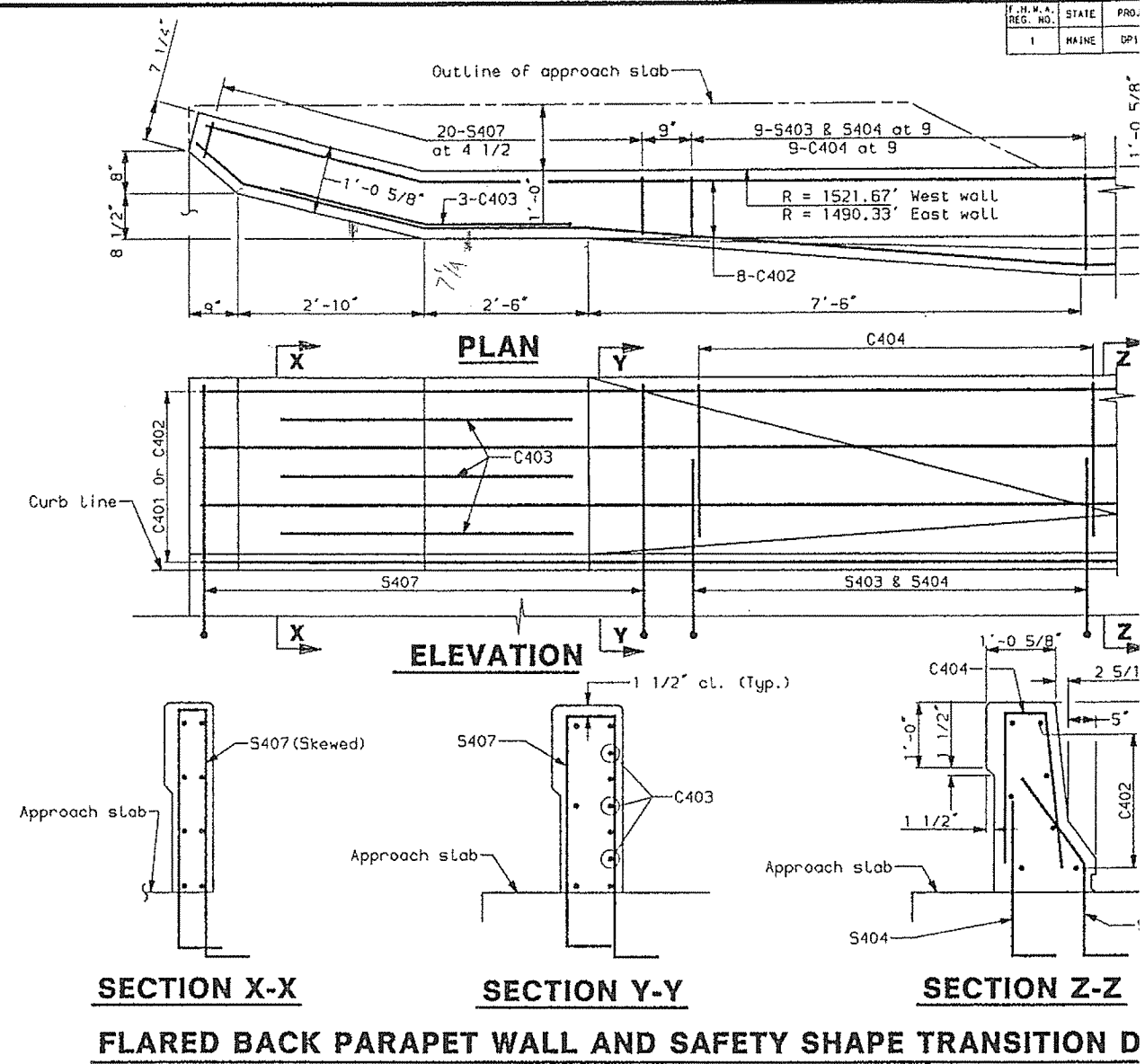
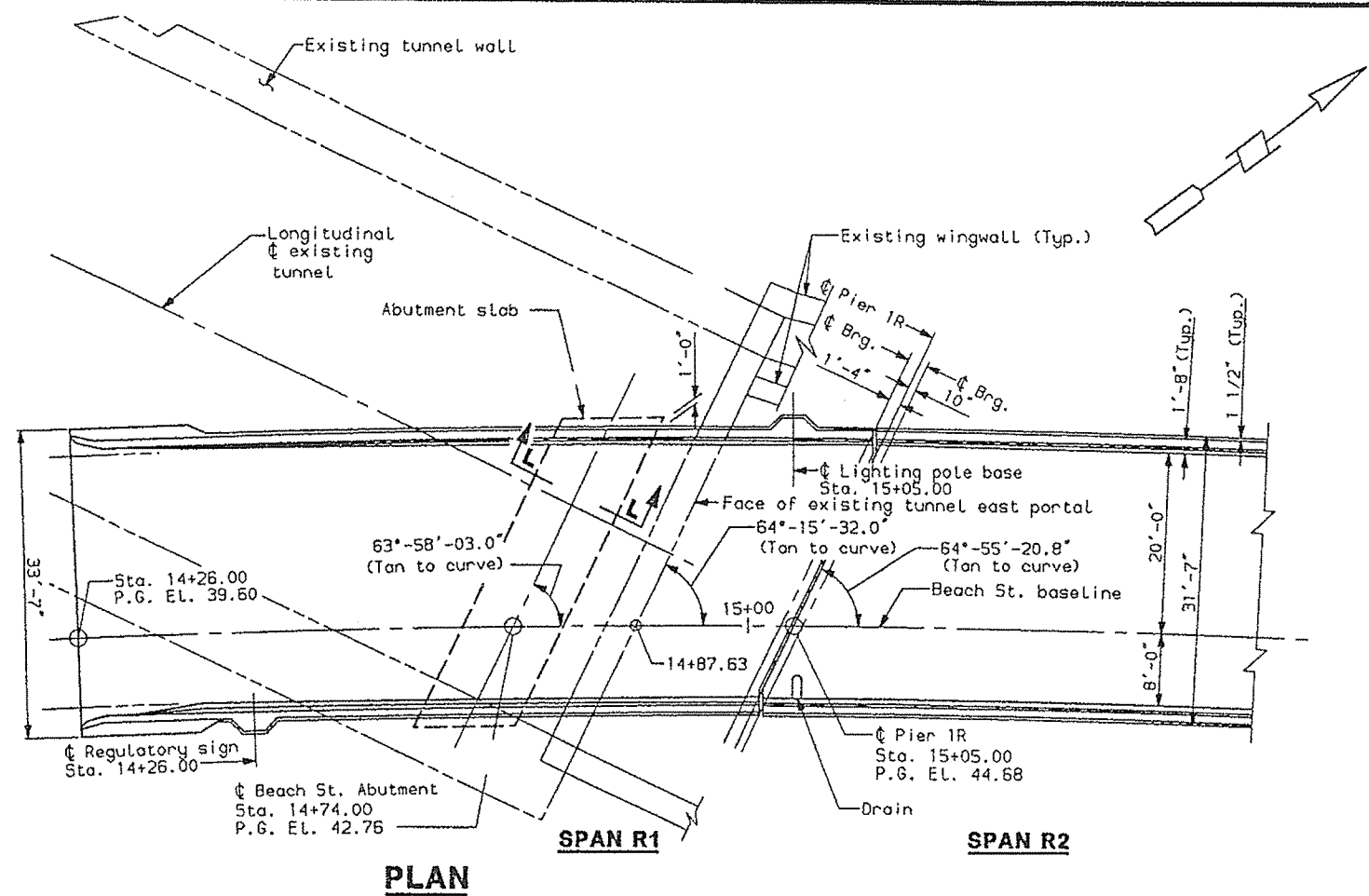
**SLAB PL
SPAN N**

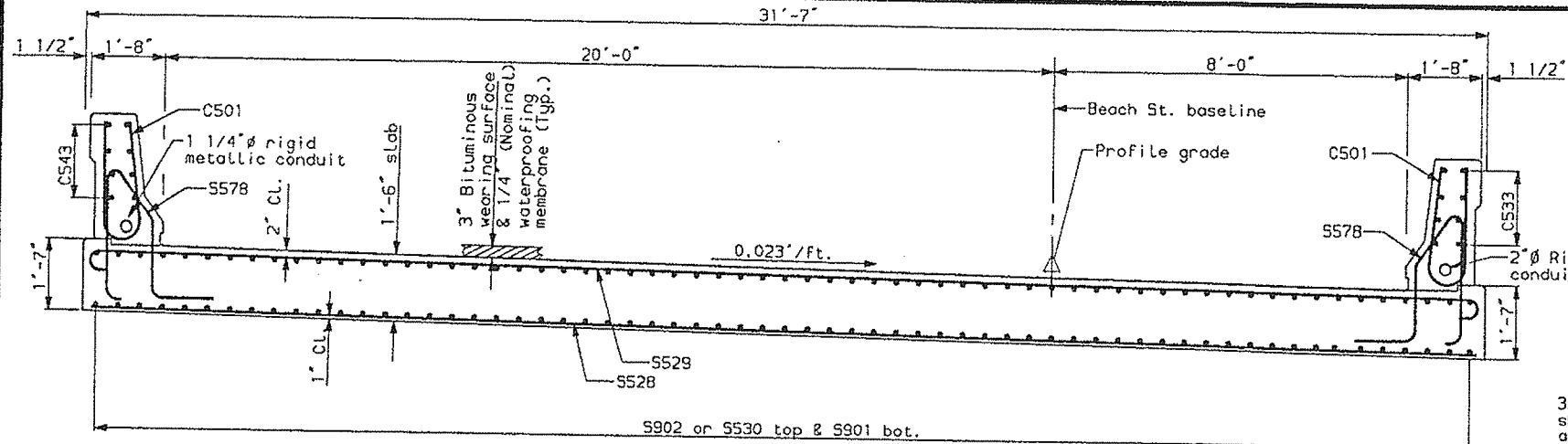
SHEET 108 OF 156 AUGUSTA.

BY	JATE
HC1	HC1
HC2	HC2
HC3	HC3
HC4	HC4
HC5	HC5
HC6	HC6
HC7	HC7
HC8	HC8
HC9	HC9
HC10	HC10
HC11	HC11
HC12	HC12
HC13	HC13
HC14	HC14
HC15	HC15
HC16	HC16
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HC20	HC20
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HC100	HC100

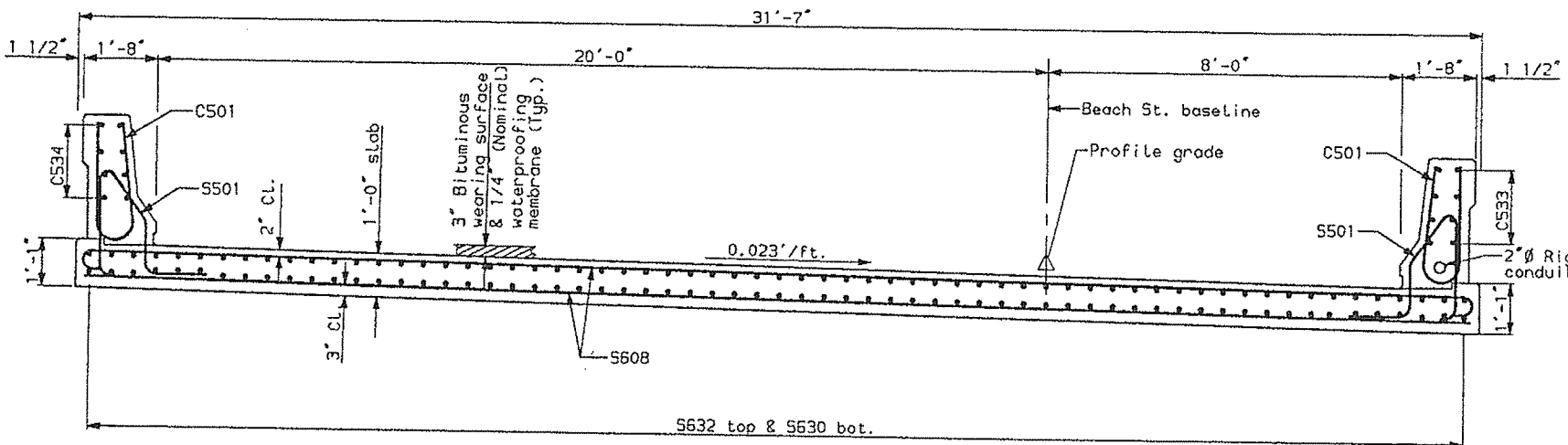
PLANS

SL N7

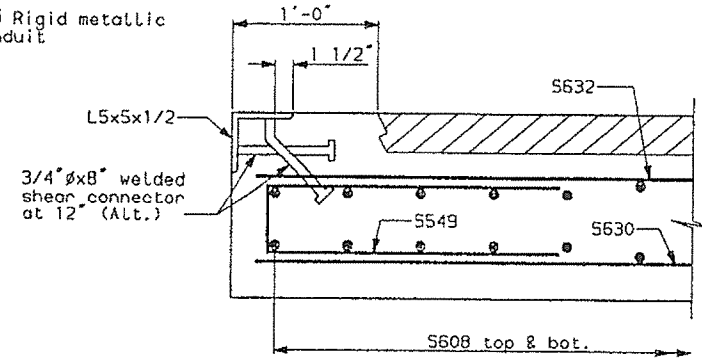




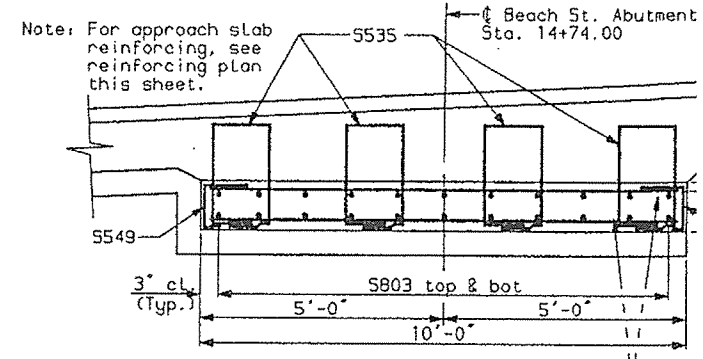
TYPICAL CROSS SECTION
Beach St. Sta. 14+74.00 to Sta. 15+05.00



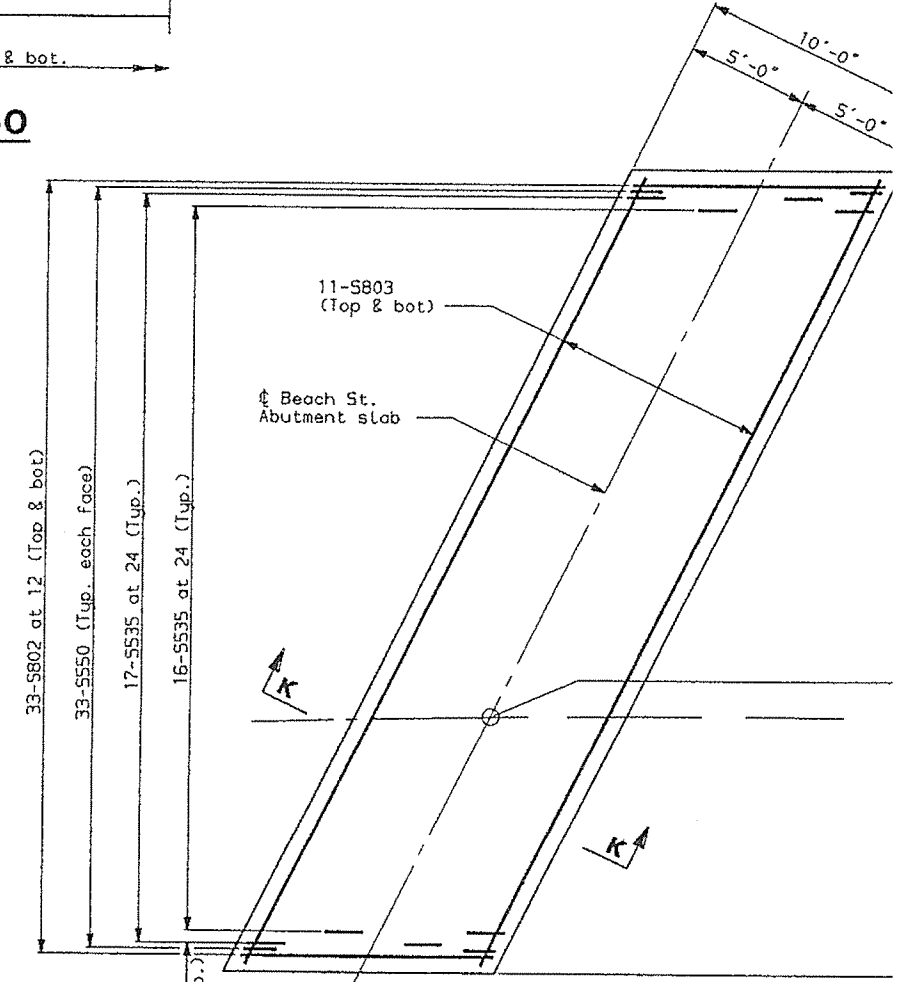
TYPICAL CROSS SECTION
Beach St. Sta. 14+26.00 to Sta. 14+74.00



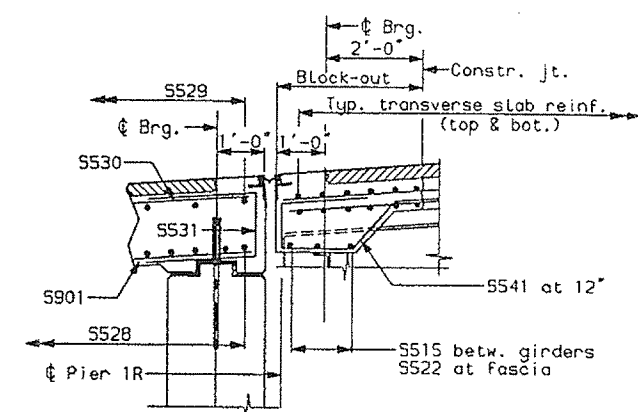
SECTION O-O



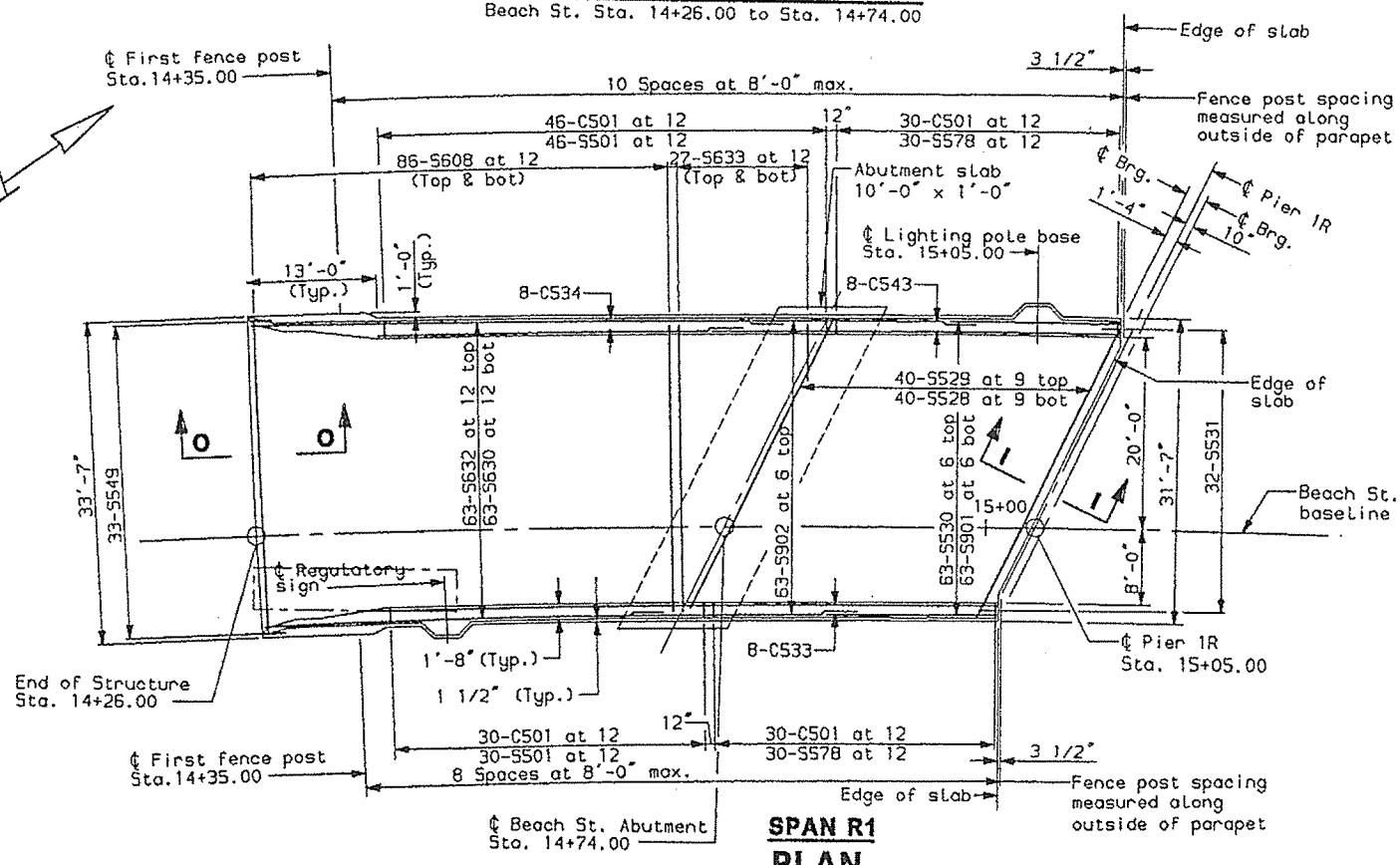
SECTION K-K



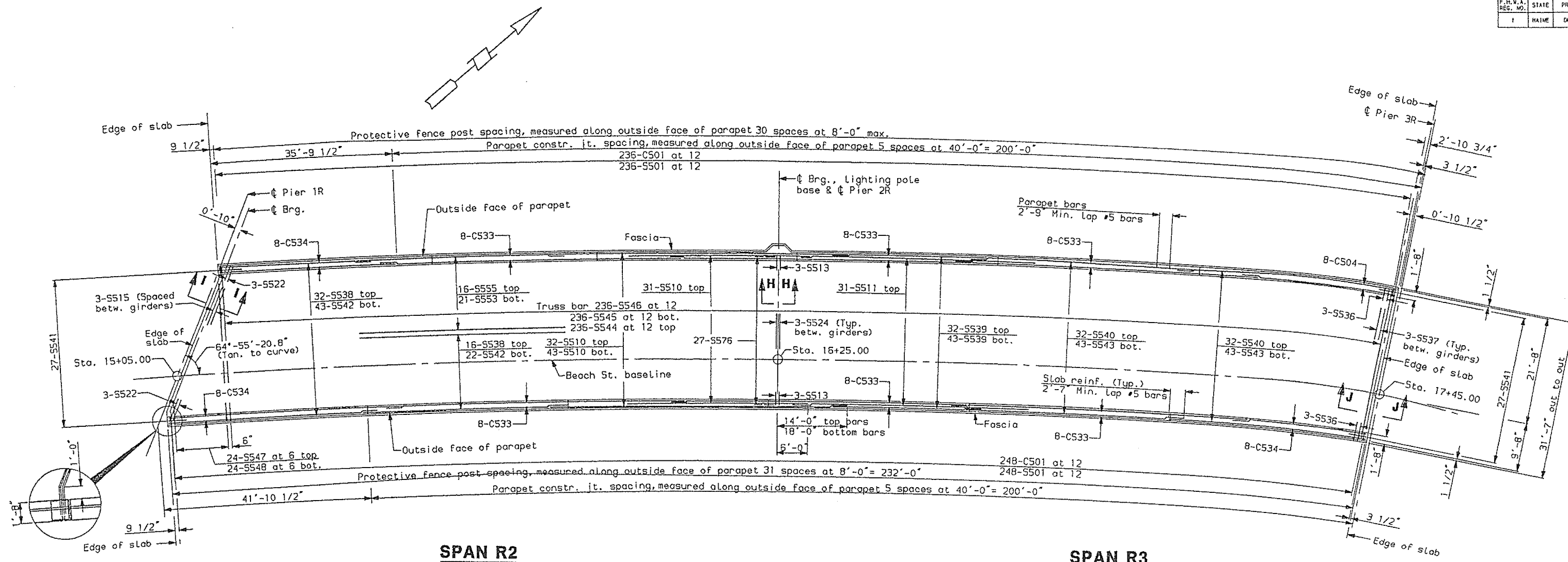
BEACH ST. ABUTMENT SLAB PLAN



SECTION I-I

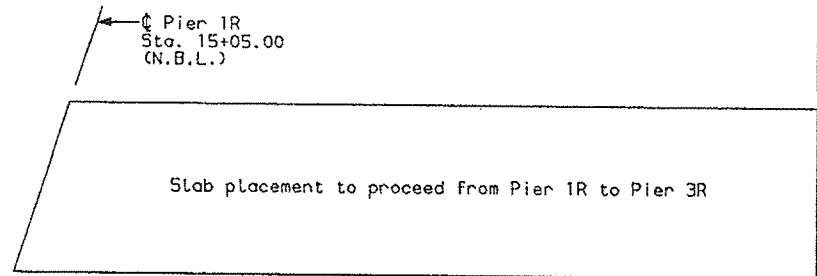


SPAN R1 PLAN

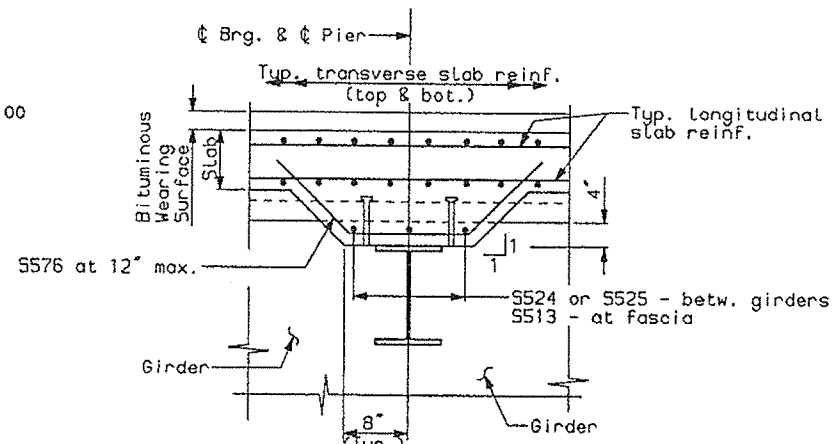


SPAN R2

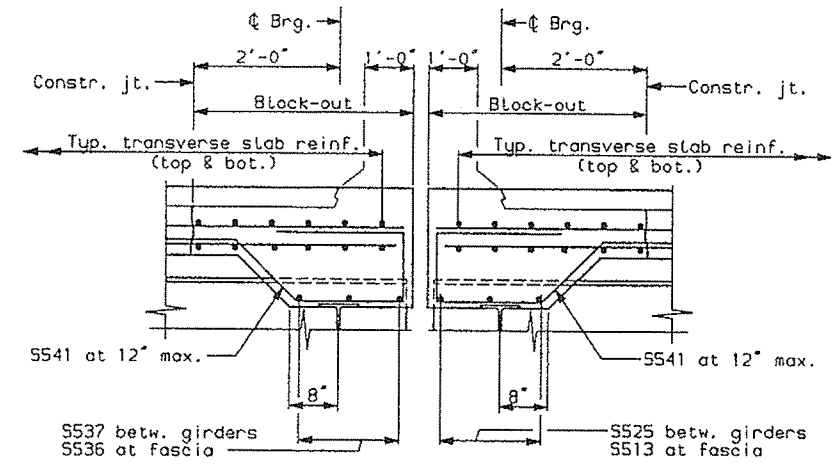
SPAN R3



SLAB PLACEMENT SEQUENCE



SECTION H-H



SECTION J-J

(Joint details have been omitted for clarity)

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE I
CUMBERLAND

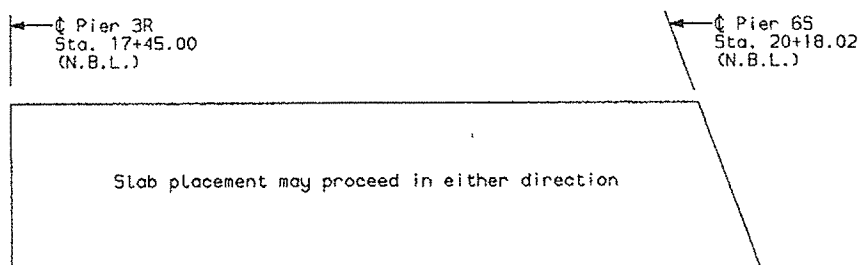
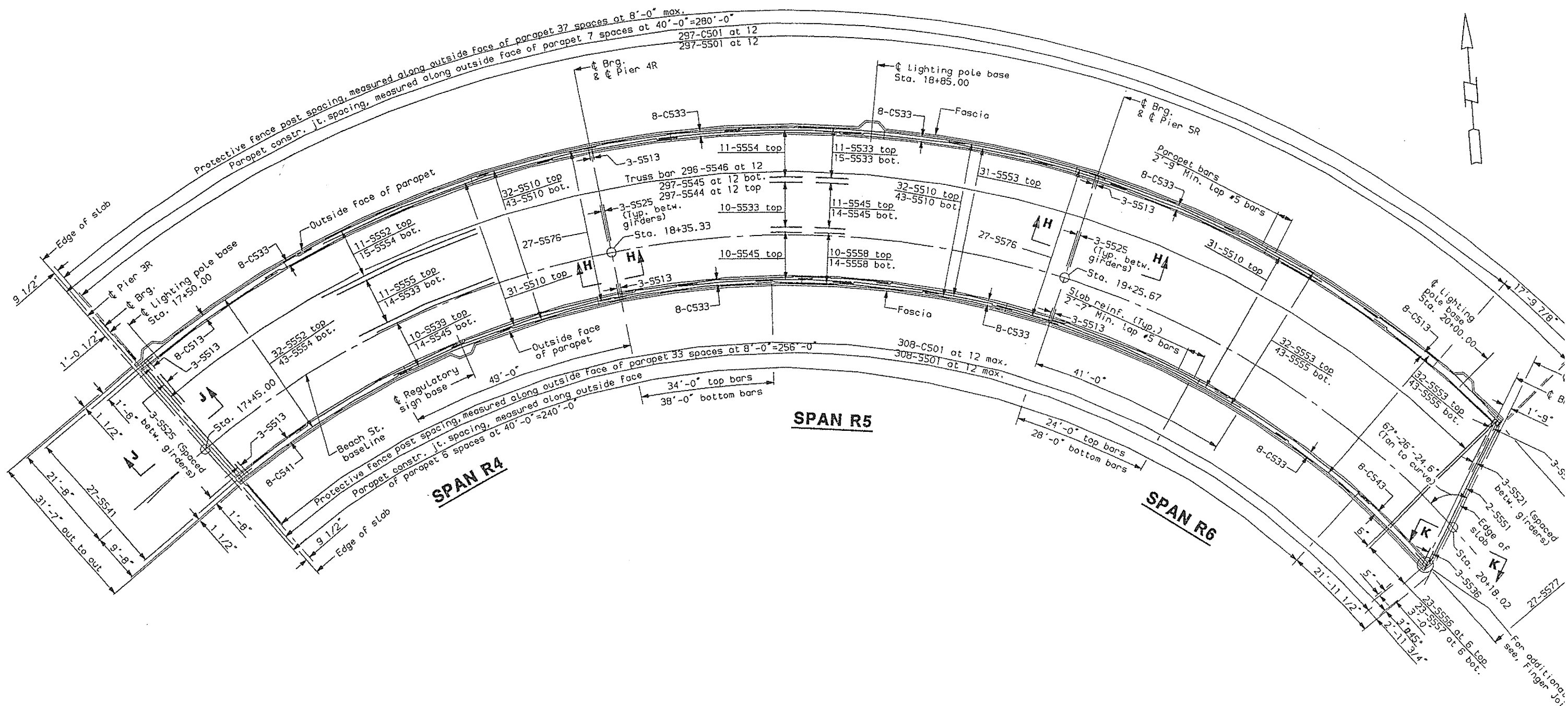
SLAB PL
SPANS R2

SHEET 111 OF 156 AUGUSTA,

DESIGNER	BY	DATE
DESIGN-DETAILED	MCJ	EAR, DTP
CHECKED	RCB	6-94
REVISION		
FIELD CHANGES		

PLANS

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SLAB PLACEMENT SEQUENCE

NORTH APPROX
STATE OF M
DEPARTMENT OF TRA

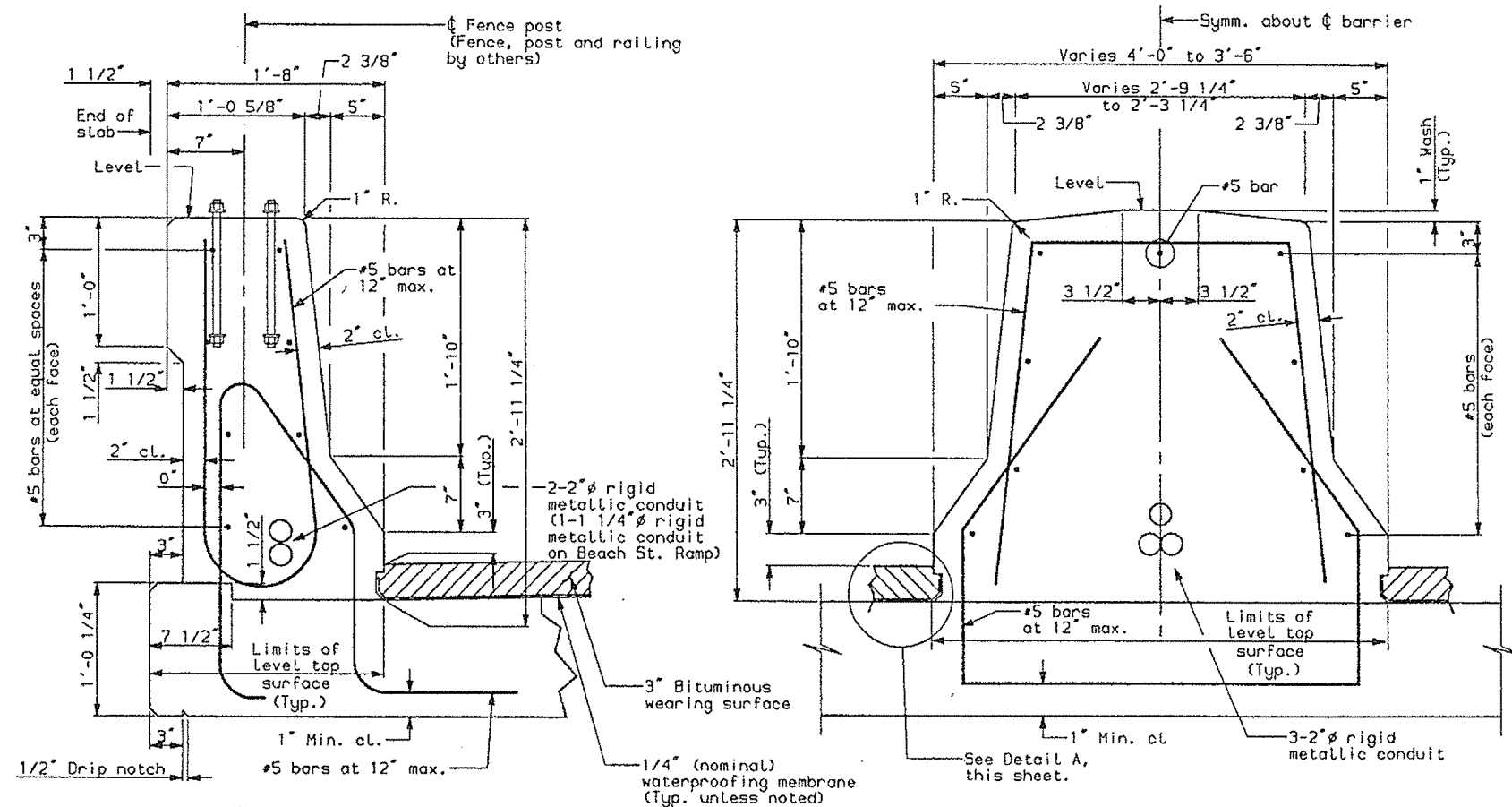
PORTLAND - S. POR
OVER FORE
CUMBERLAND

SLAB P
SPANS R

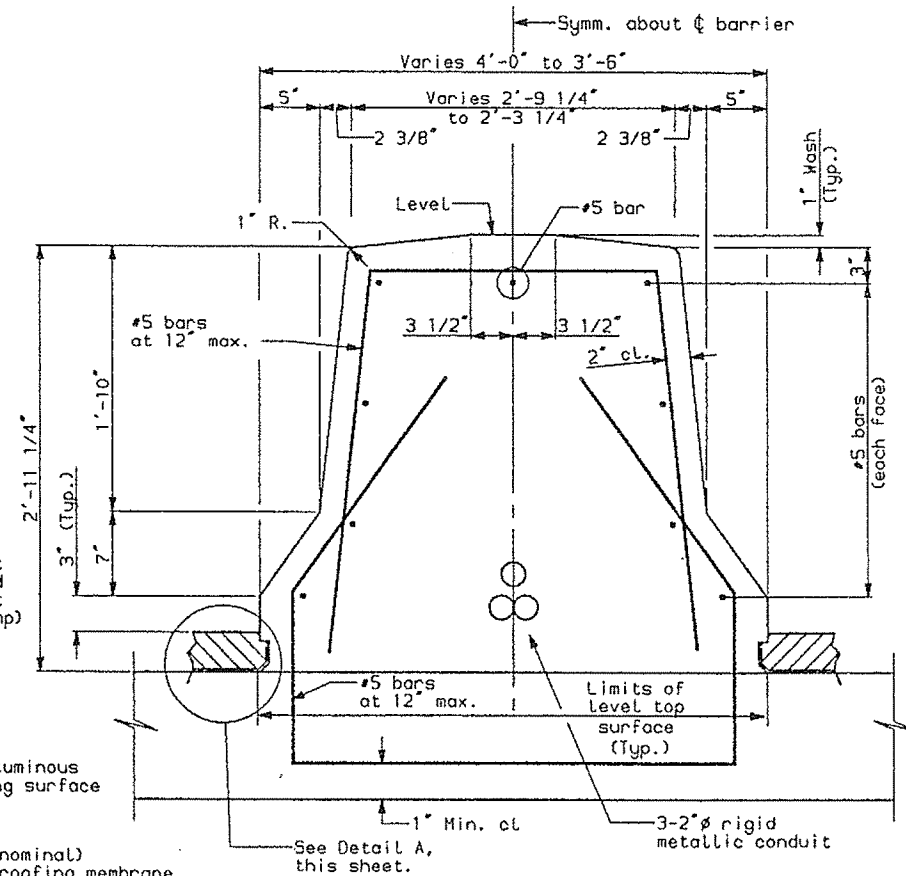
SHEET 112 OF 156 AUGUSTA

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	6-94
CHECKED	6-94
REVISION	
FIELD CHANGES	

17, 98.02
sla.bee.r4r6

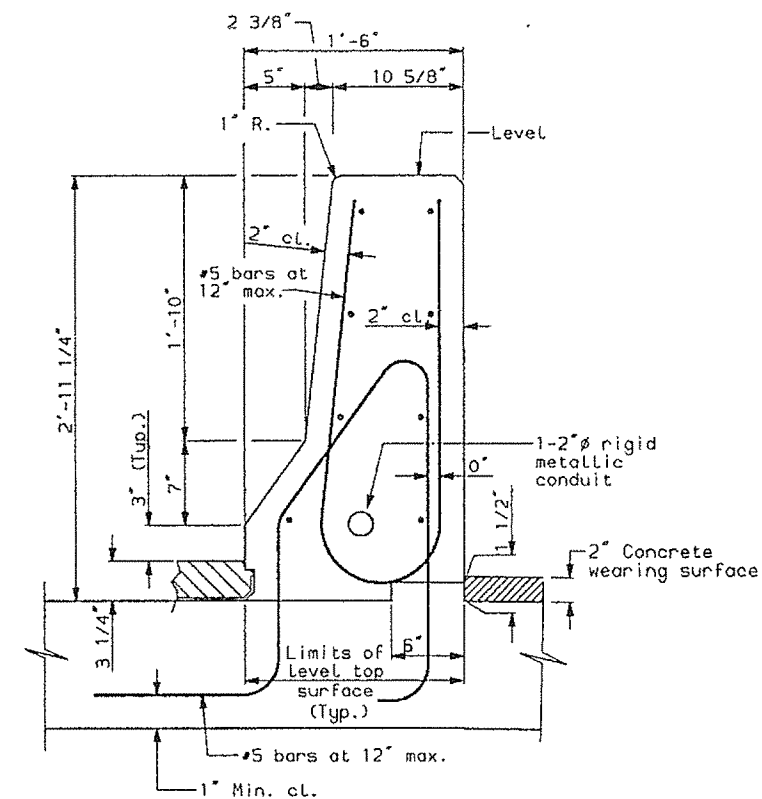


TYPICAL 1'-8" PARAPET DETAIL

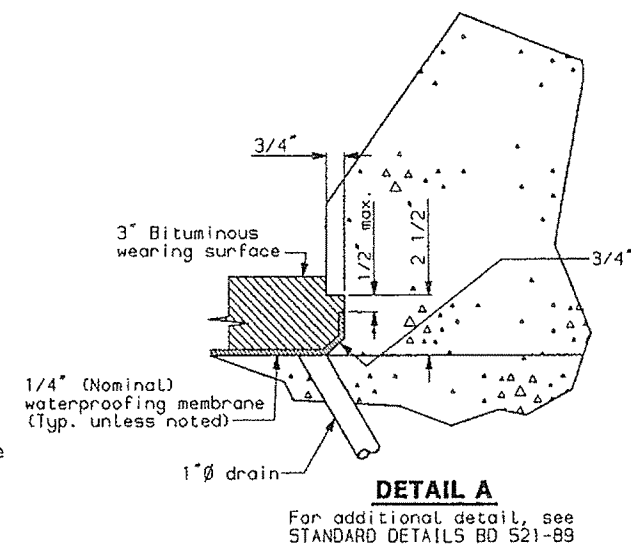


TYPE A MEDIAN BARRIER DETAIL

Sta. 243+52.20 to Sta. 253+29.50 (N.B.L.)



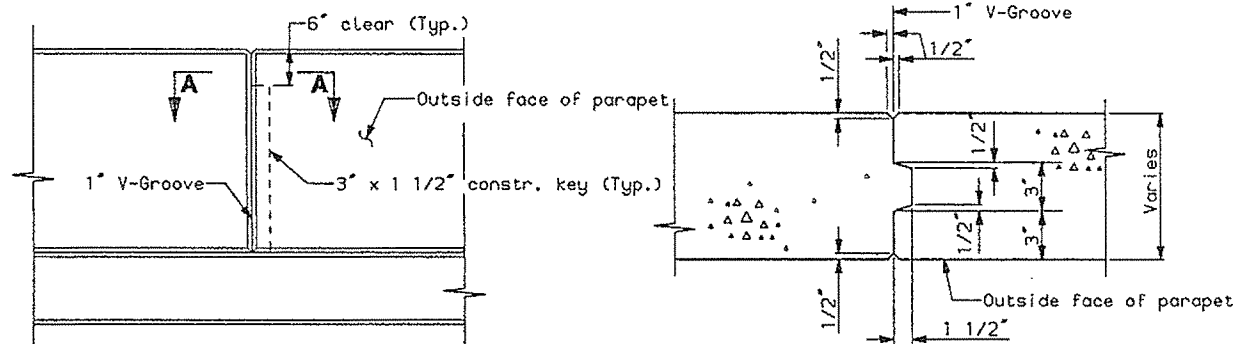
TYPICAL 1'-6" PARAPET DETAIL



DETAIL A

For additional detail, see
STANDARD DETAILS BD 521-89

* AASHTO M270 (ASTM A709), grade 36.
Concrete to be bushed level under all lighting pole
and sign structure base plates.



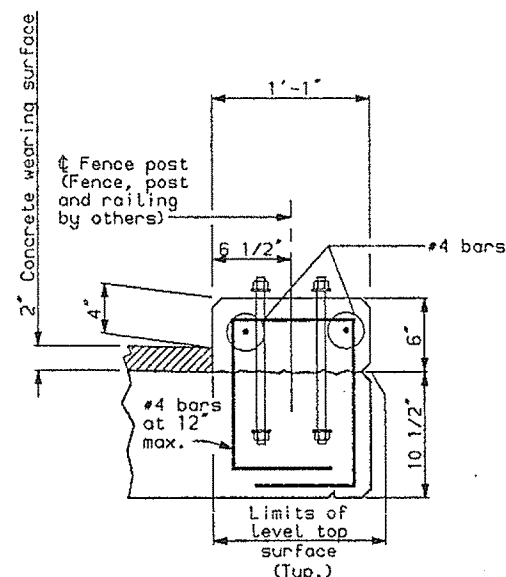
ELEVATION

SECTION A-A

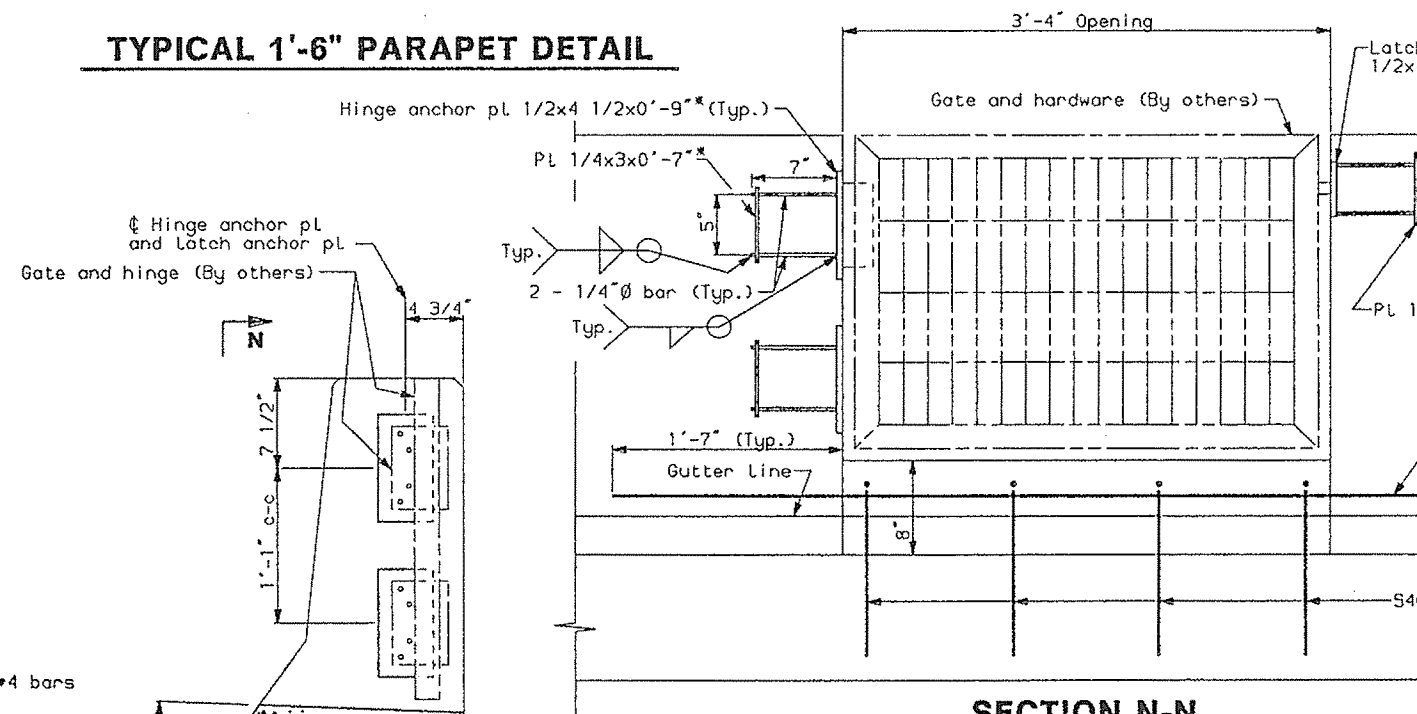
Note: 3' constr. key symm. about C Type A median barrier

PARAPET/MEDIAN CONSTRUCTION JOINT DETAIL

Parapet shown, Type A median barrier similar



SIDEWALK CURB



SECTION N-N

NORTH APPROACH

STATE OF MAI
DEPARTMENT OF TRANS

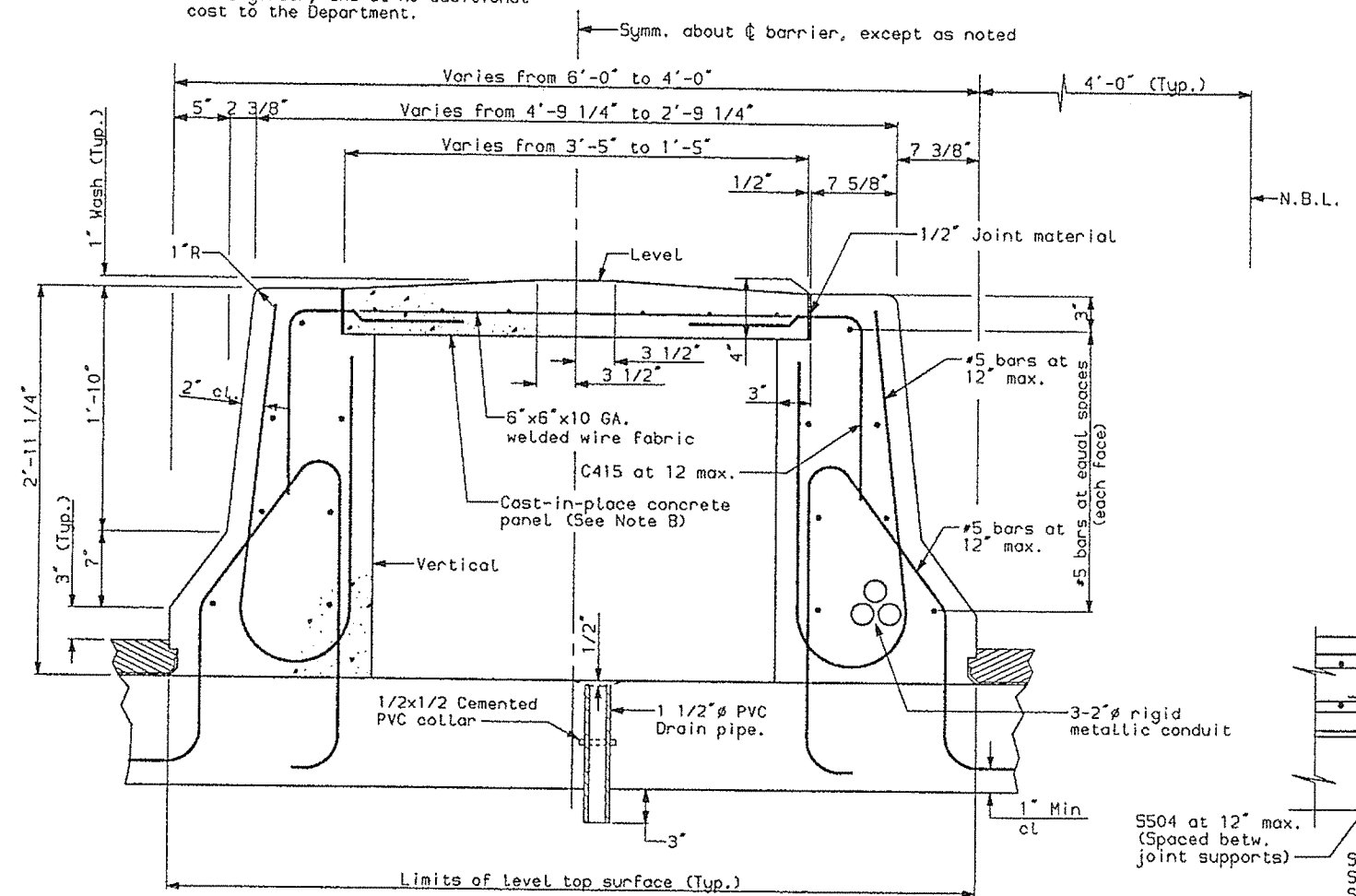
PORTLAND - S. PORTI

OVER FORE F

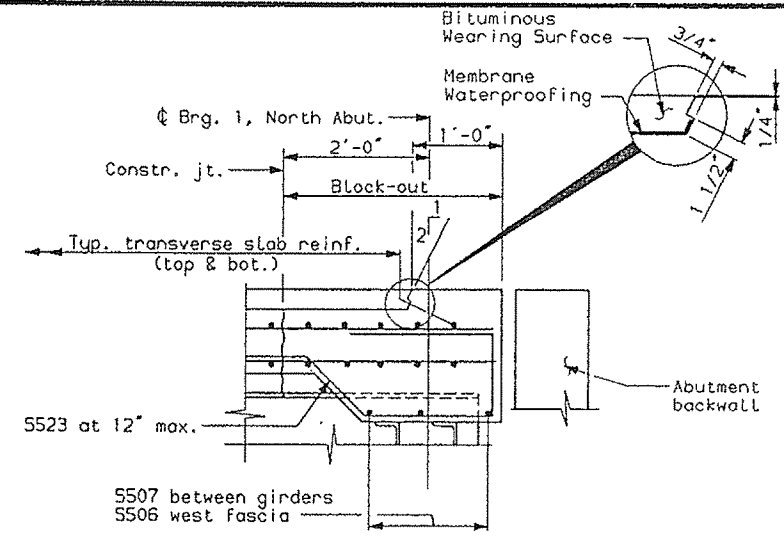
CUMBERLAND C

SLAB DETAIL

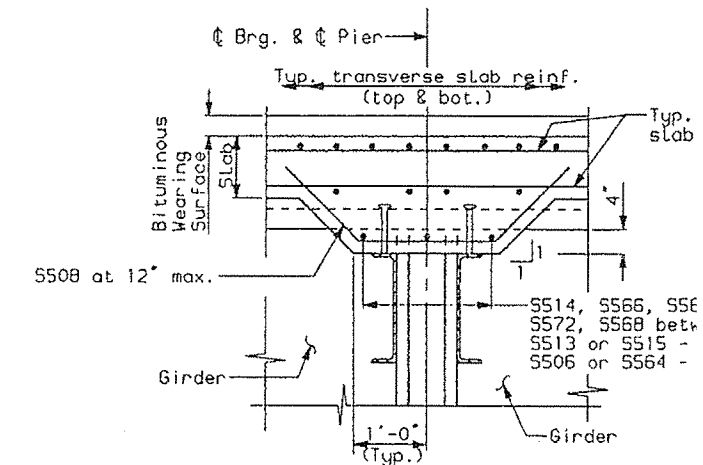
Note B: The contractor may substitute a precast cover for the median barrier with prior approval of the engineer, and at no additional cost to the Department.



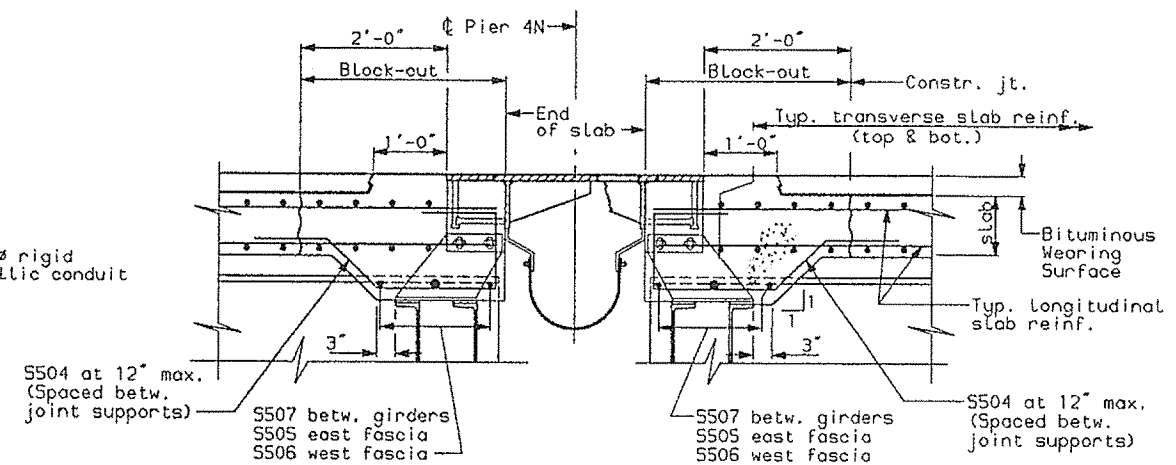
TYPICAL TYPE B MEDIAN BARRIER DETAIL
STA. 240+21.53 to Sta. 243+52.20 (N.B.L.)



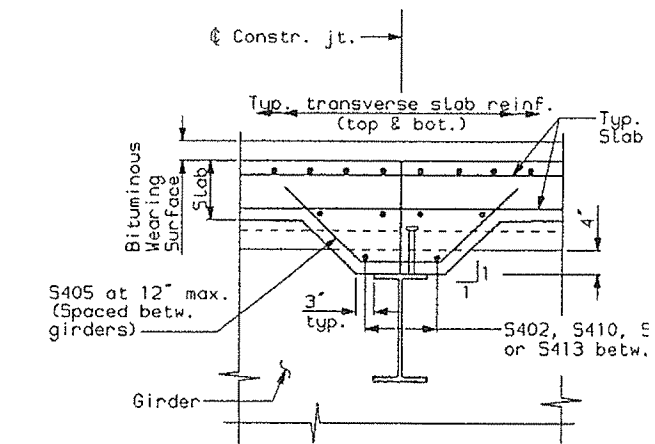
SECTION F-F
(Joint details have been omitted for clarity)



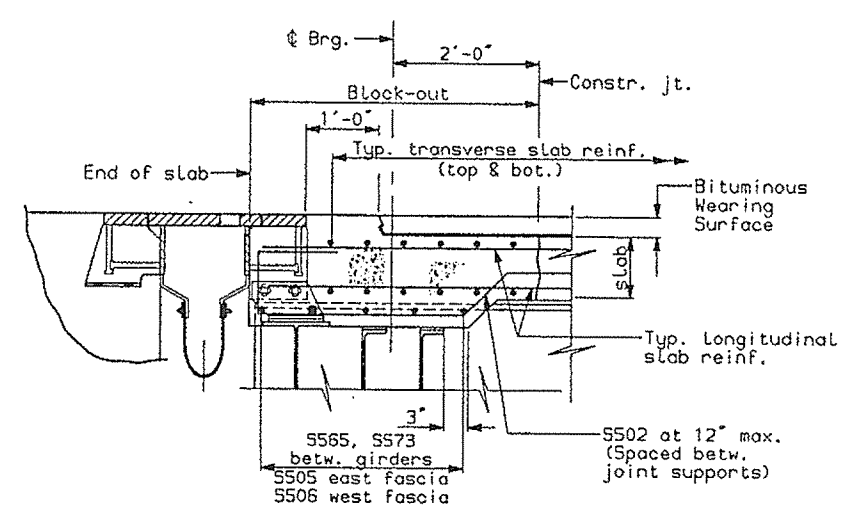
SECTION B-B



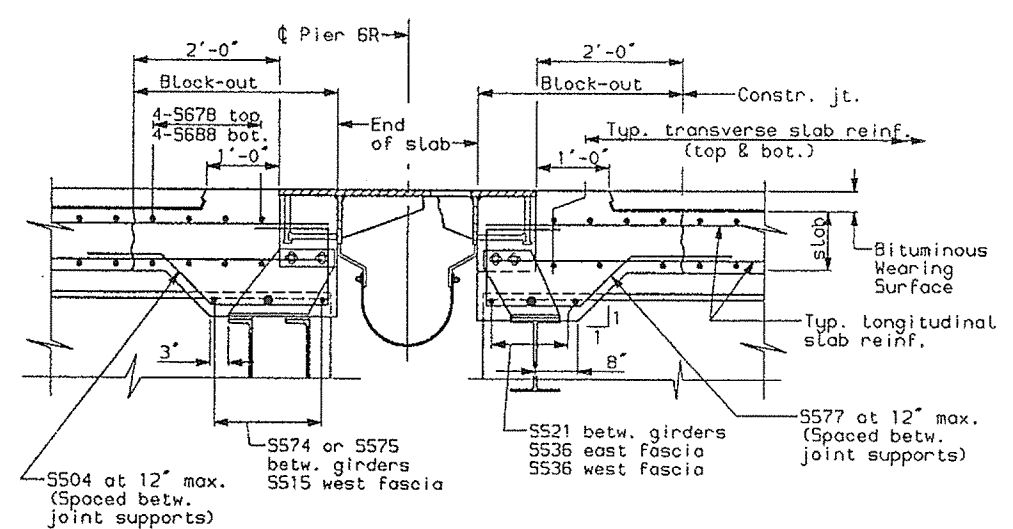
SECTION C-C



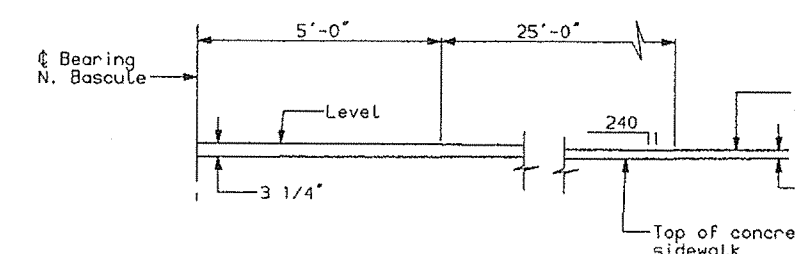
SECTION D-D



SECTION E-E



SECTION K-K



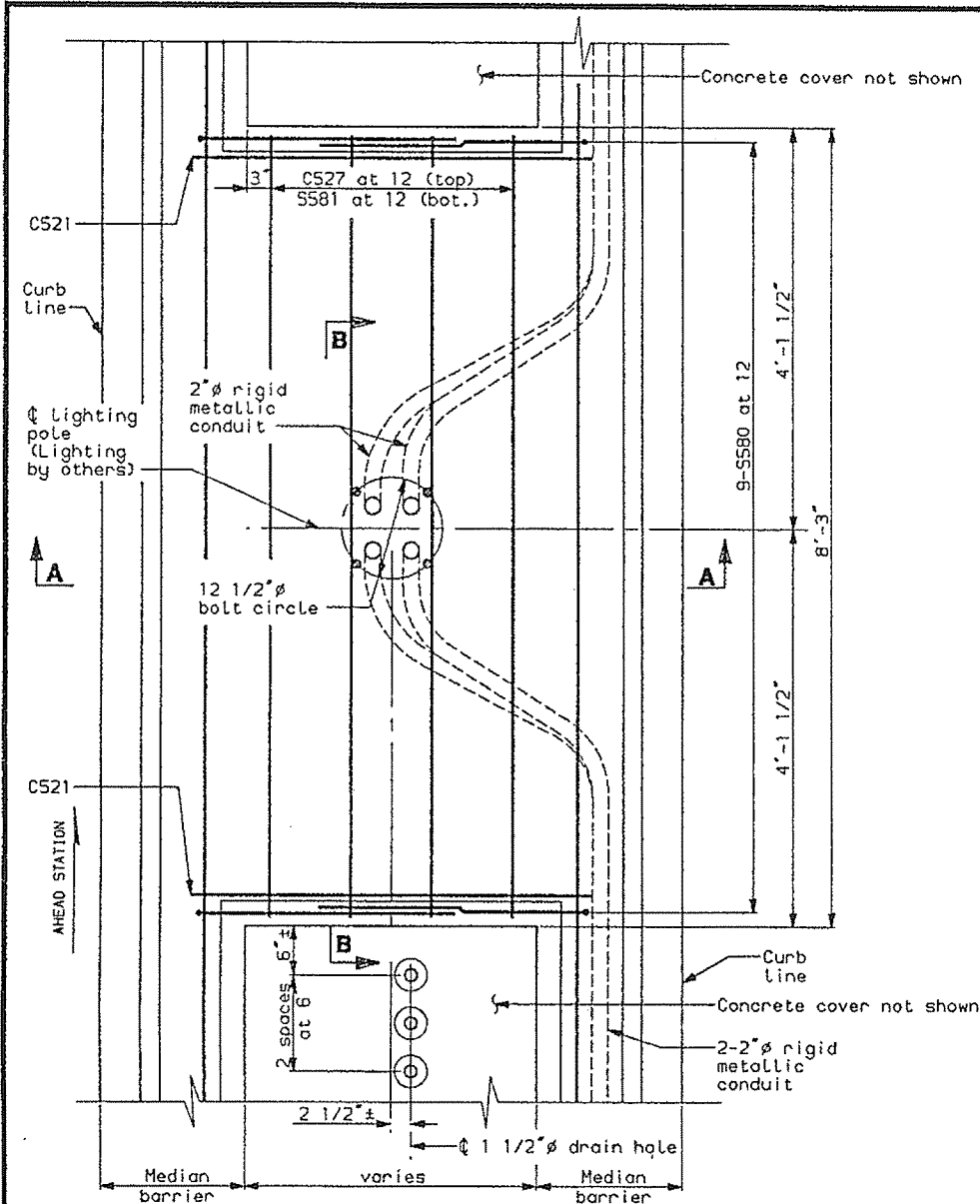
**ELEVATION
SIDEWALK TRANSITION
AT SPAN N1**

NORTH APPROACH

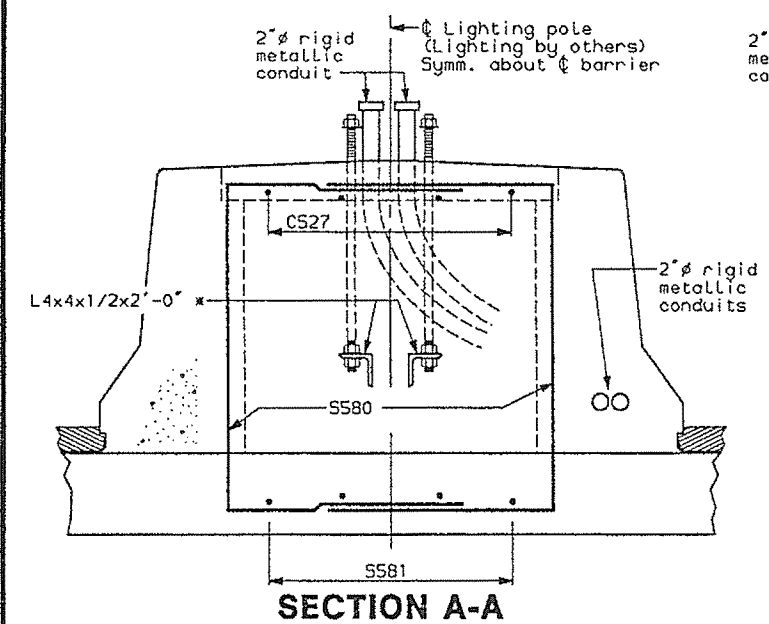
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
OVER FORE F
CUMBERLAND C**

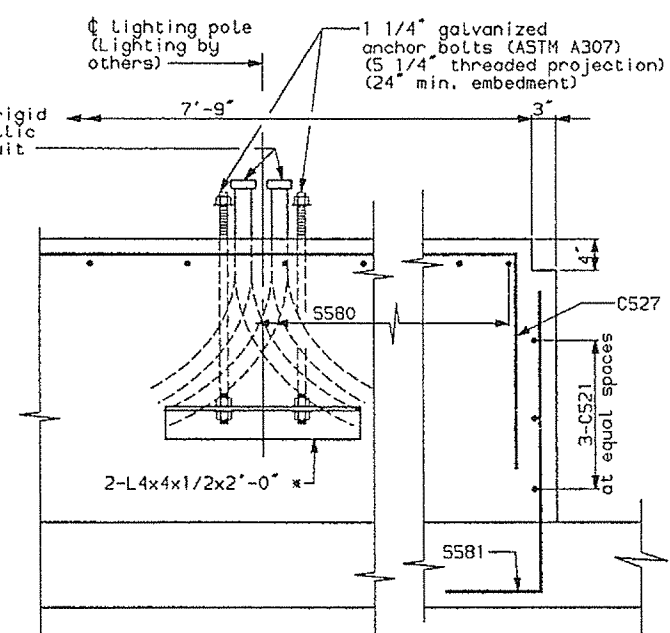
SLAB DETAIL



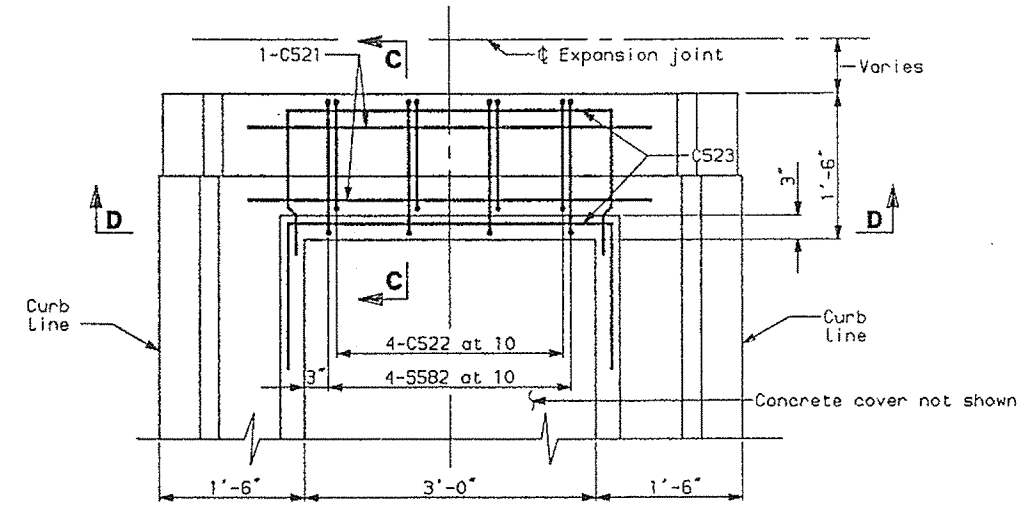
**PLAN OF LIGHTING POLE BASE
AT DIVIDED MEDIAN BARRIERS**



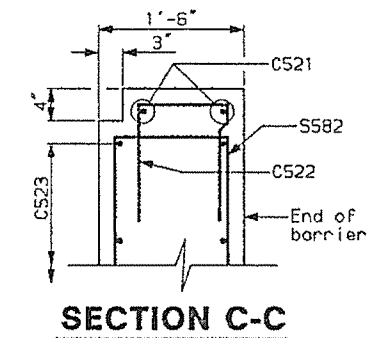
SECTION A-A



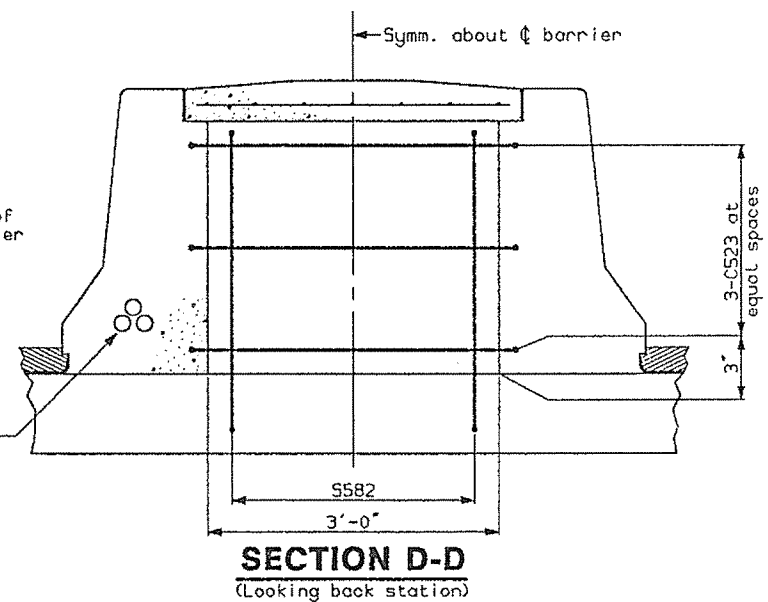
SECTION B-B



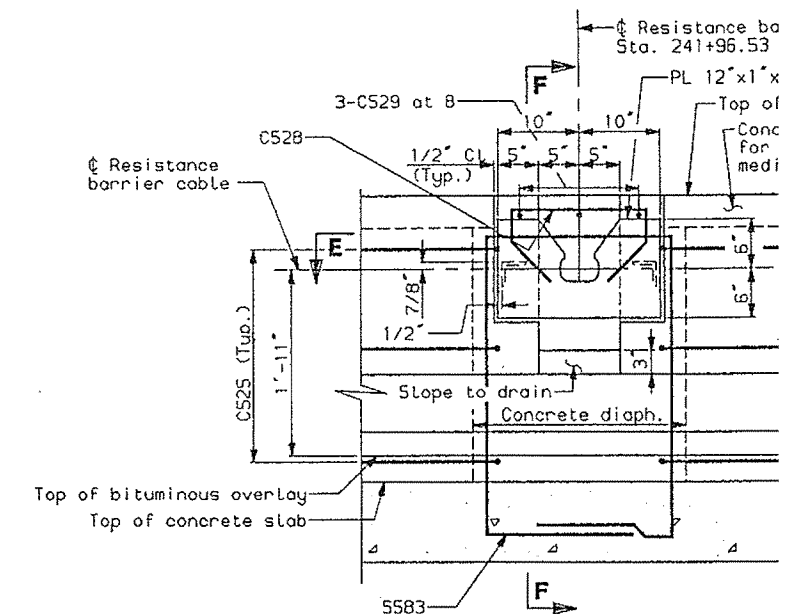
**PLAN OF DIVIDED MEDIAN
BARRIERS AT EXPANSION JOINT**



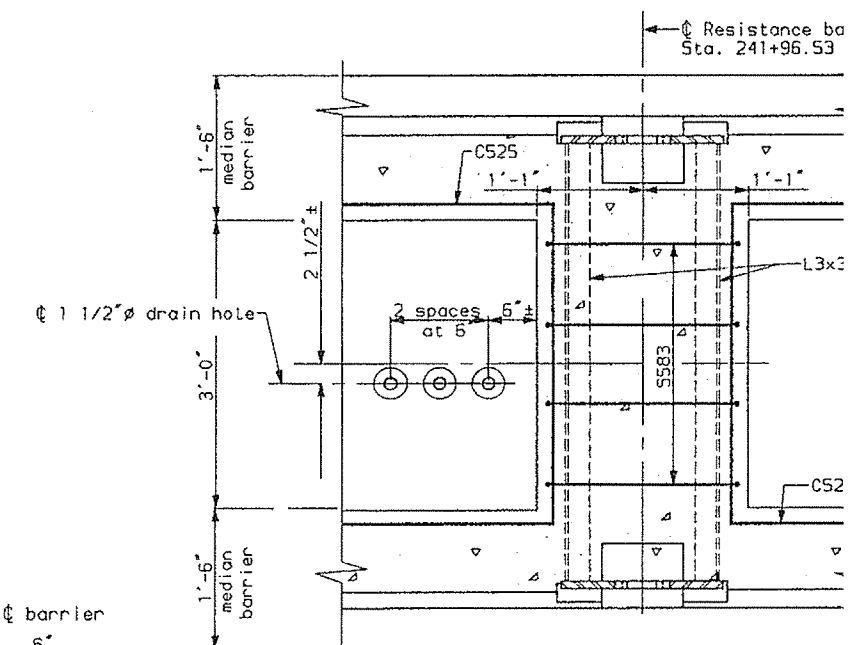
SECTION C-C



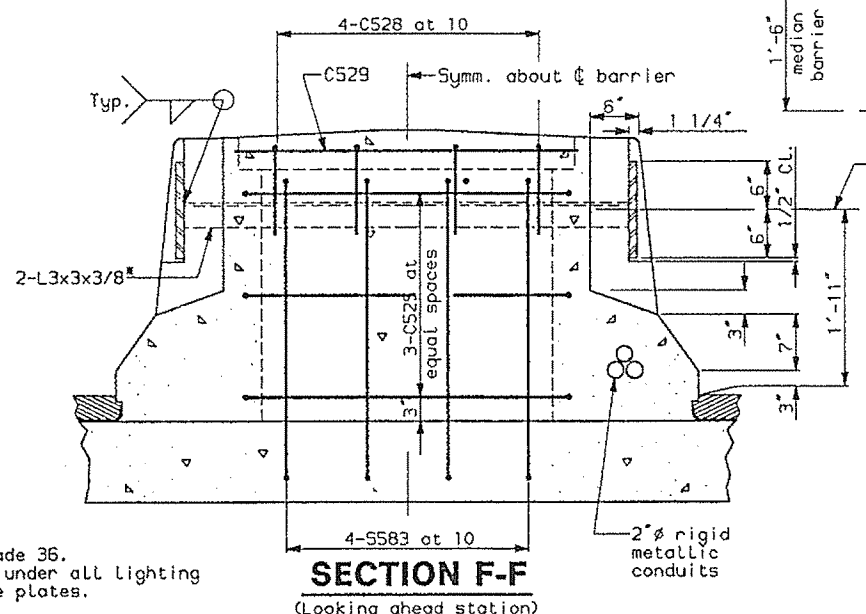
**SECTION D-D
(Looking back station)**



**ELEVATION OF
RESISTANCE BARRIER
END LOCK**



SECTION E-E

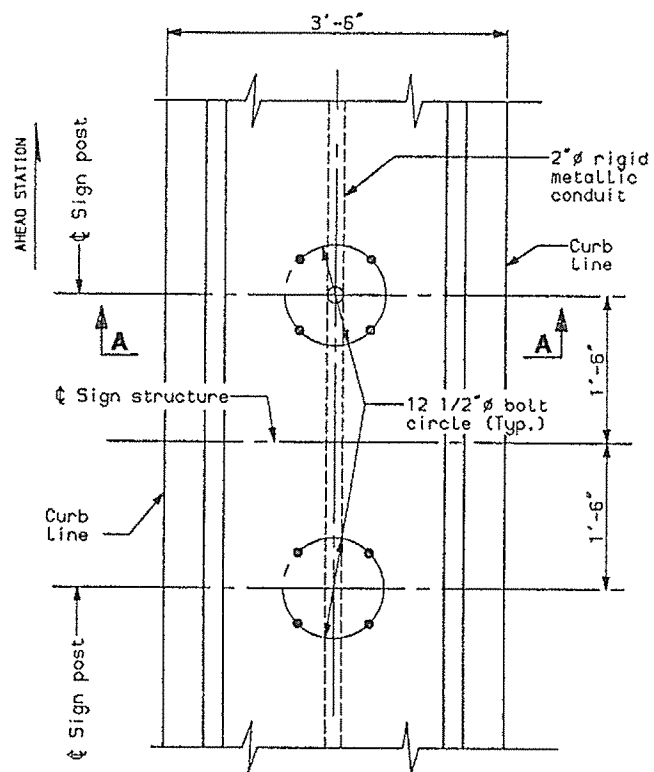


**SECTION F-F
(Looking ahead station)**

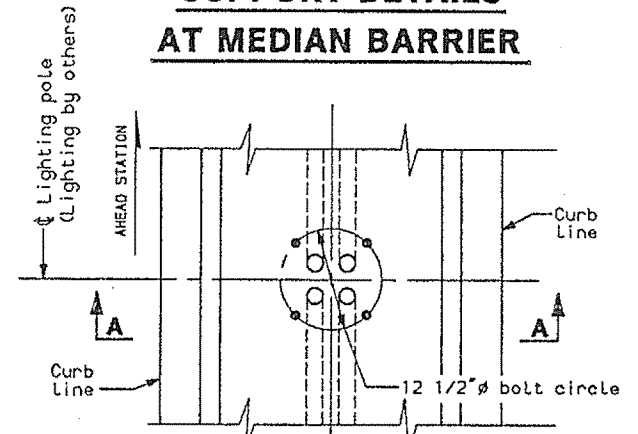
* AASHTO M270 (ASTM A709), grade 36.
Concrete to be bushed level under all lighting
pole and sign structure base plates.

NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY

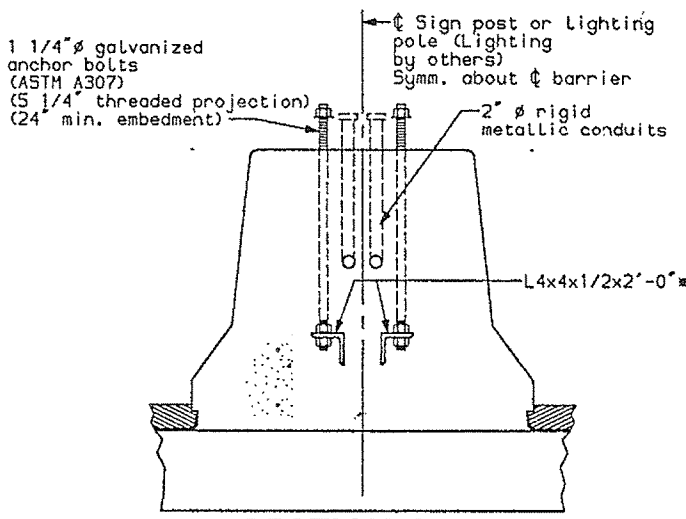
SLAB DETAIL



**SIGN STRUCTURE MOUNTING
SUPPORT DETAILS
AT MEDIAN BARRIER**

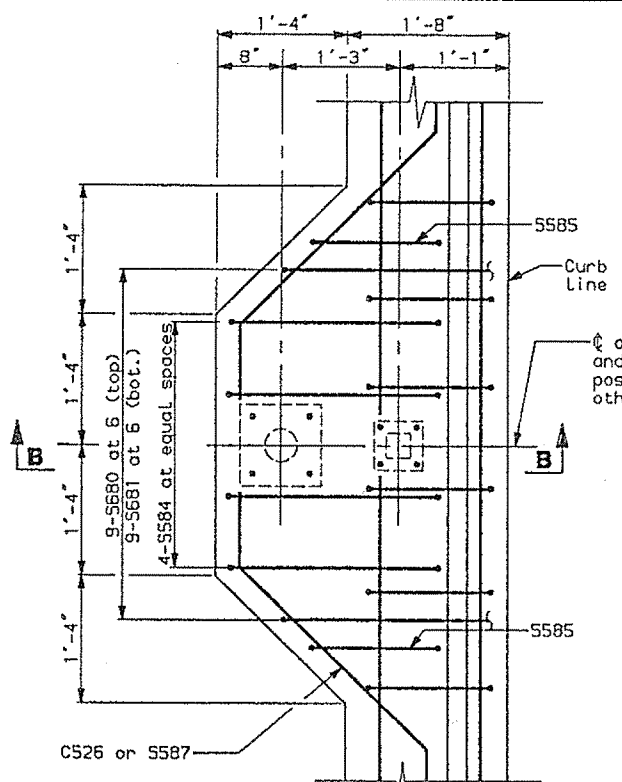


**PLAN OF LIGHTING POLE BASE
AT 3'-6" MEDIAN BARRIER**

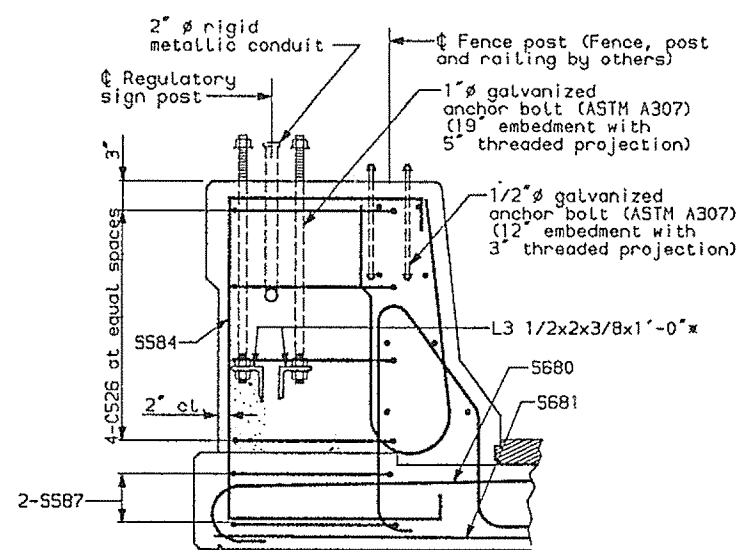


SECTION A-A

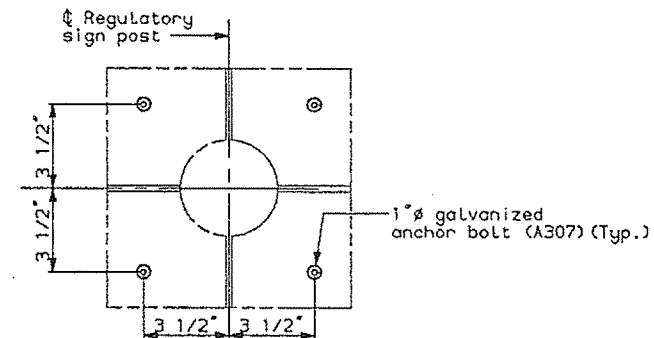
(Lighting conduit shown; sign structure conduit similar)



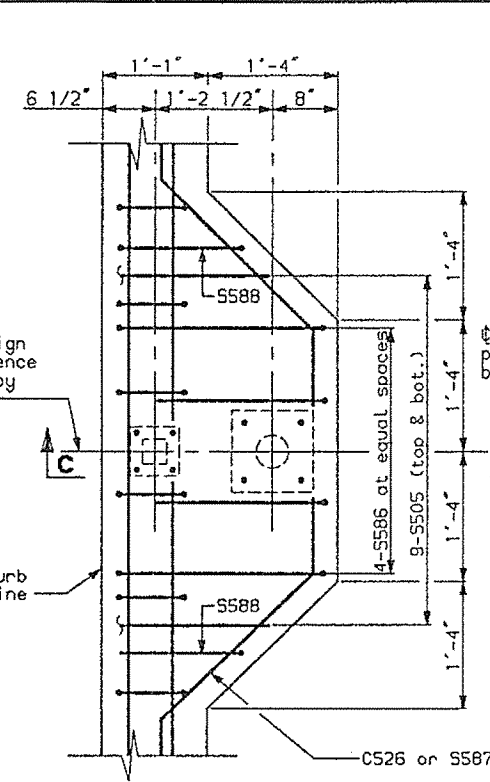
**REGULATORY SIGNS
MOUNTING SUPPORT DETAILS
AT 1'-8" PARAPET**



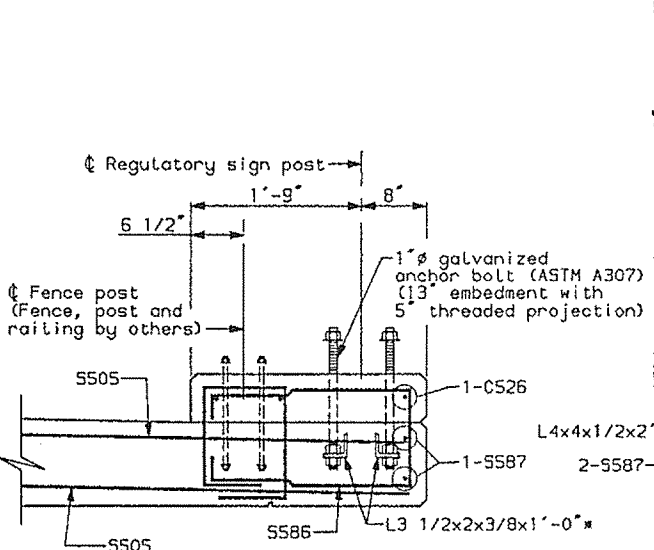
SECTION B-B



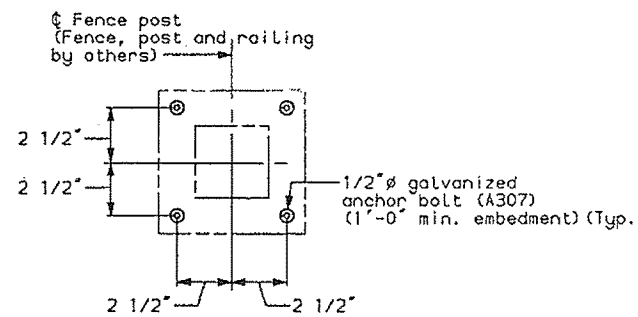
**REGULATORY SIGN POST
ANCHOR BOLT LAYOUT**



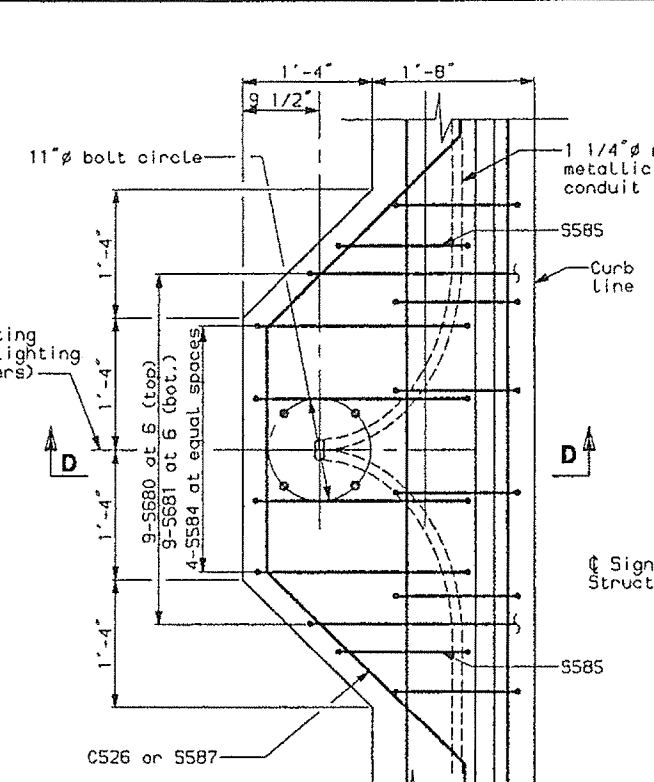
**REGULATORY SIGNS
MOUNTING SUPPORT DETAILS
AT CURB**



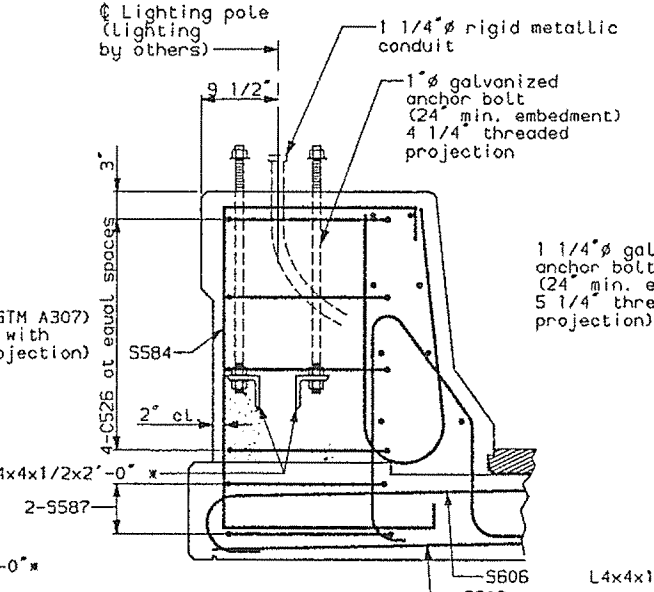
SECTION C-C



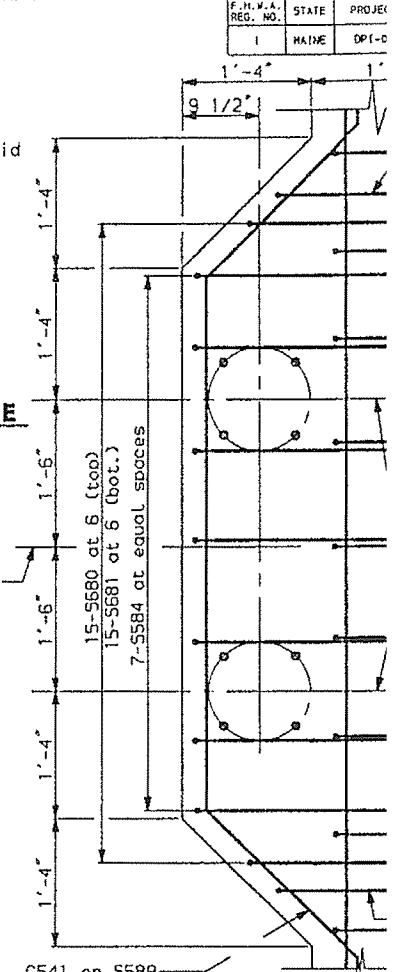
**FENCE POST ANCHOR
BOLT LAYOUT**



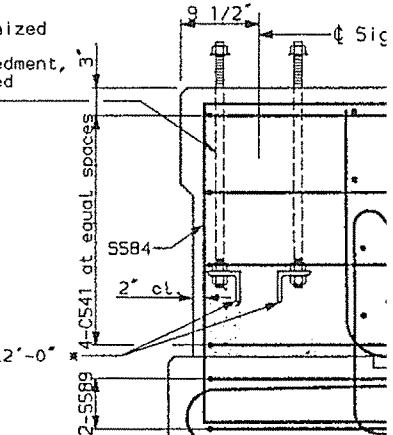
**PLAN OF LIGHTING POLE BASE
AT 1'-8" PARAPET**



SECTION D-D



**SIGN STRUCTURE
MOUNTING SUPPORT
AT 1'-8" PARAPET**



SECTION E-E

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
OVER FORE
CUMBERLAND**

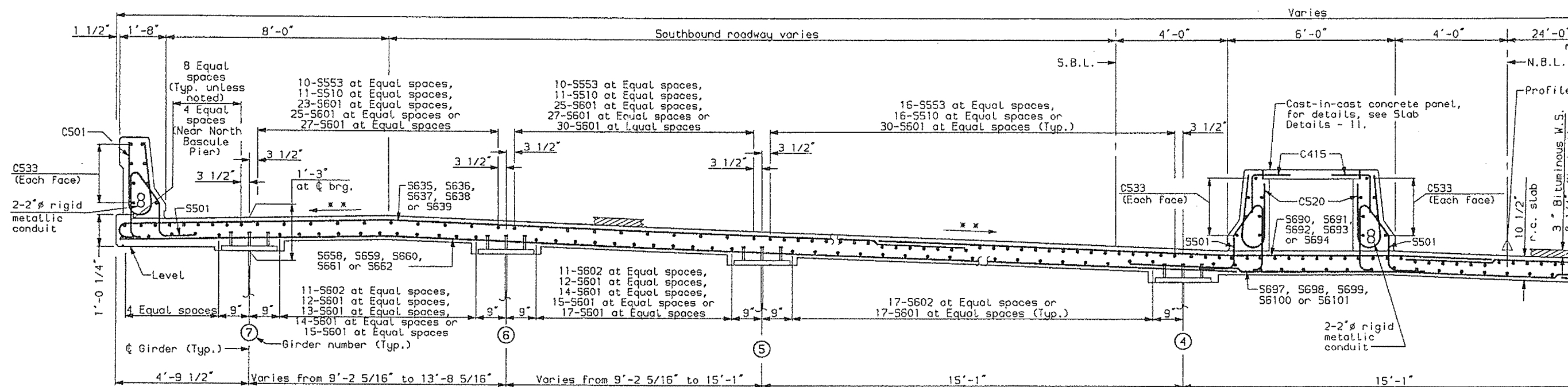
SLAB DETAIL

* AASHTO M270 (ASTM A709), grade 36.
Concrete to be bushed level under all
lighting pole and sign structure base
plates.

DESIGN-DETAILED	6-94	DTP
CHECKED	6-94	HCB
REVISION		
FIELD CHANGES		

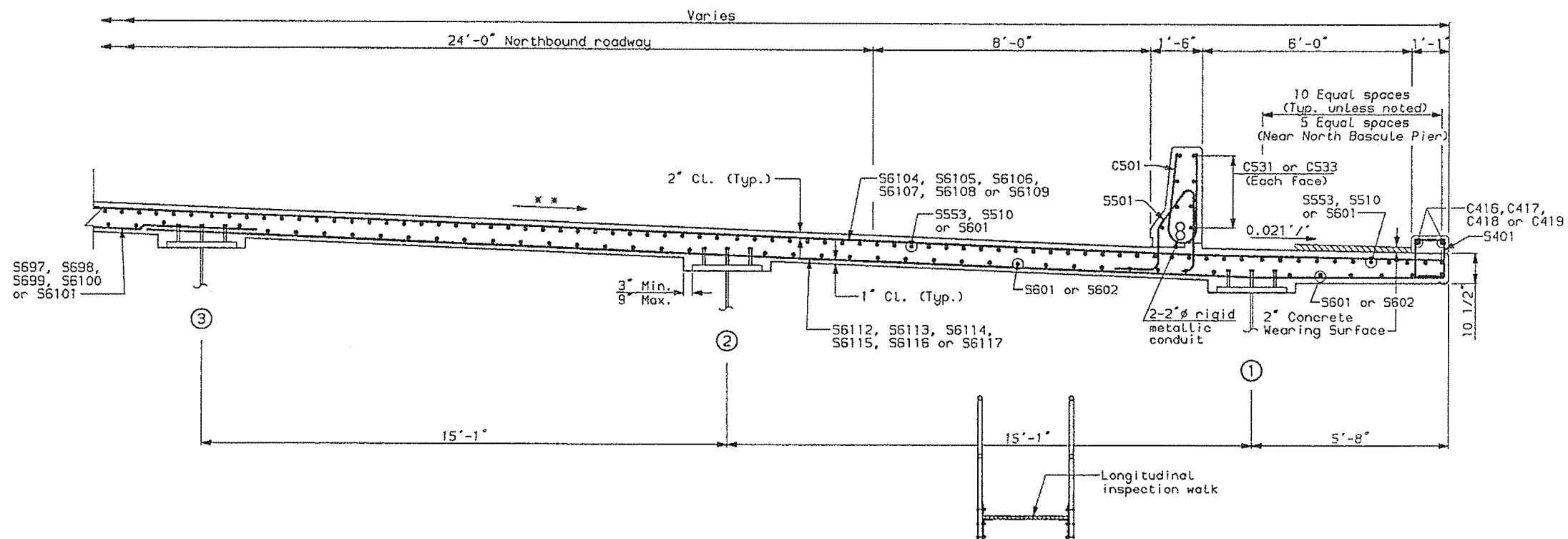
6-27-94

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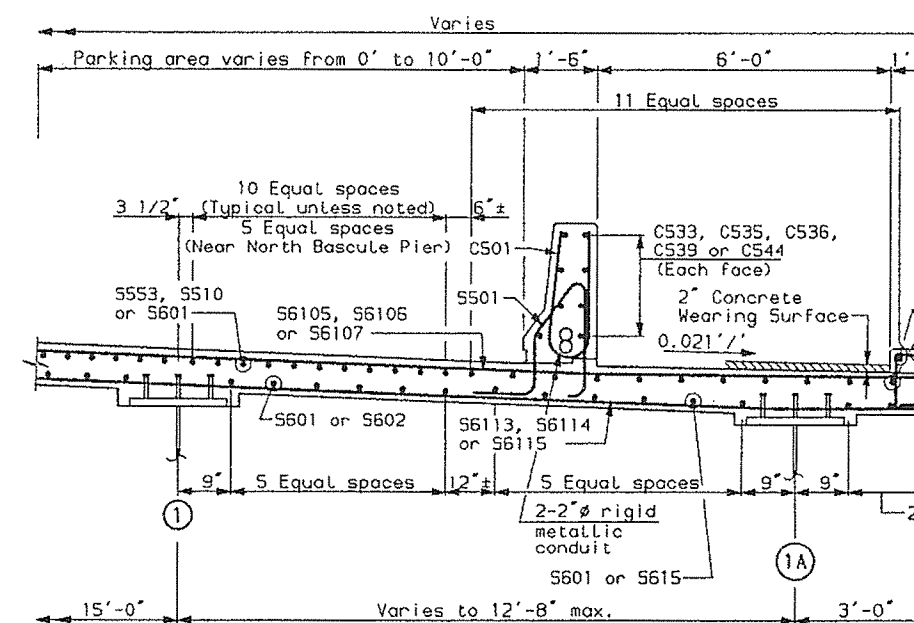
TYPICAL CROSS SECTION

N.B.L. Sta. 240+21.53 to Sta. 242+99.93
S.B.L. Sta. 440+51.16 to Sta. 443+29.64



TYPICAL CROSS SECTION

N.B.L. Sta. 240+21.53 to Sta. 242+99.93
S.B.L. Sta. 440+51.16 to Sta. 443+29.64



PARTIAL SECTION

N.B.L. Sta. 240+23.70 to Sta. 241+38.91
S.B.L. Sta. 440+53.33 to Sta. 441+68.54

NORTH APPROACH

STATE OF MAI
DEPARTMENT OF TRANS

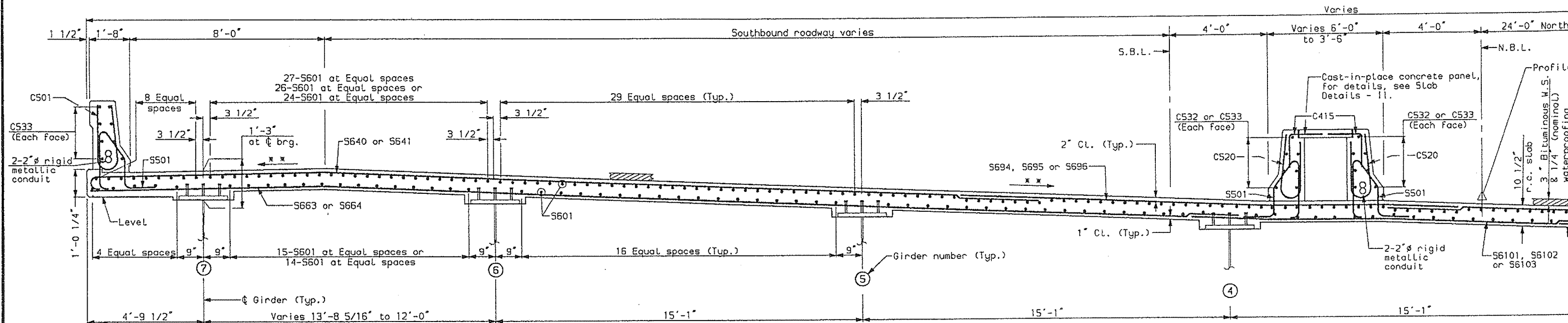
PORTLAND - S. PORTI

OVER FORE R

CUMBERLAND C

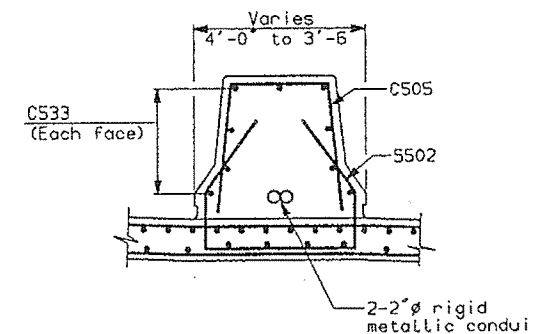
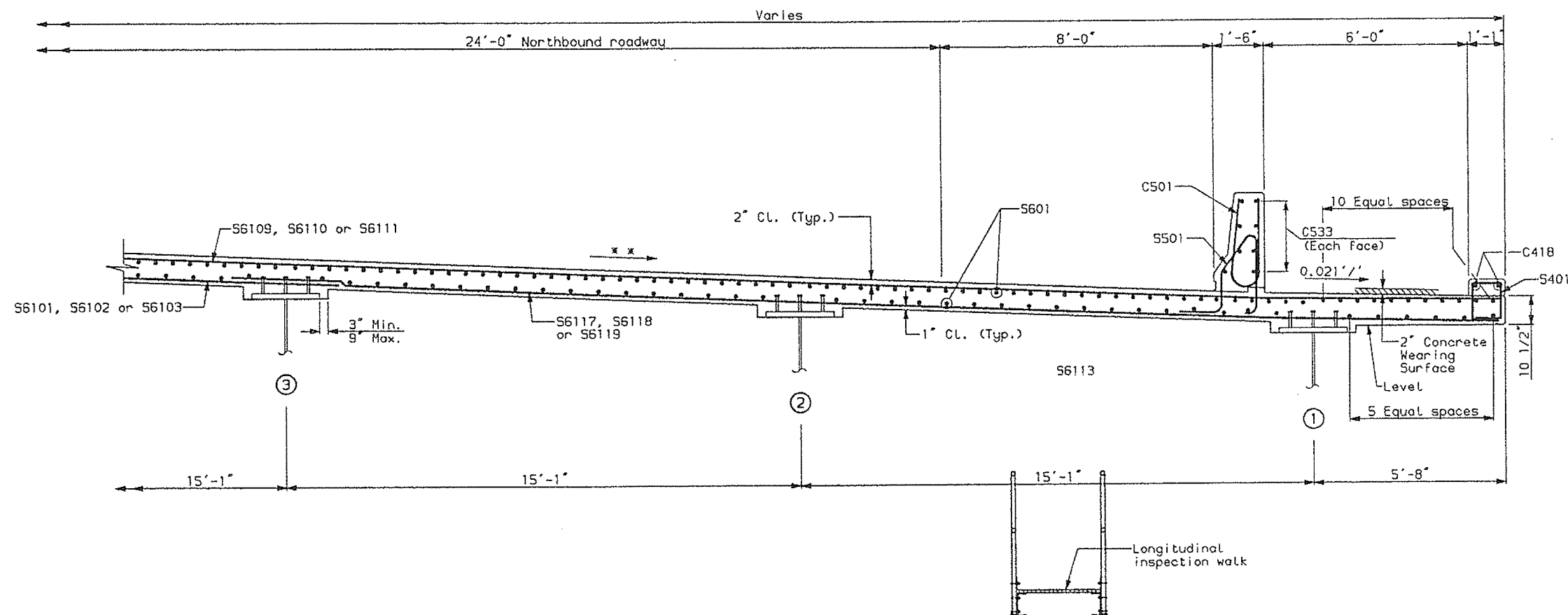
**NORTH APPR
SLAB CROSS SE**

* * For roadway and shoulder cross slope,
see Method of Superelevation sheets.



TYPICAL CROSS SECTION

N.B.L. Sta. 242+99.93 to Sta. 243+96.87
S.B.L. Sta. 443+29.64 to Sta. 444+26.96



TYPE A MEDIAN

N.B.L. Sta. 243+52.20 to Sta. 243+96.87
S.B.L. Sta. 443+81.92 to Sta. 444+26.96

For roadway and shoulder or see Method of Superelevation

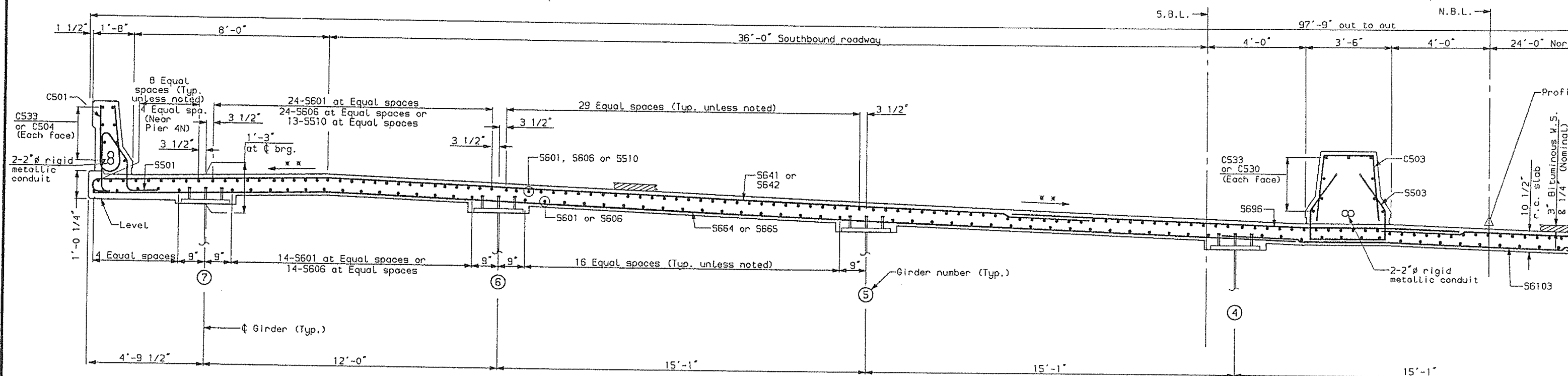
NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE I
CUMBERLAND (

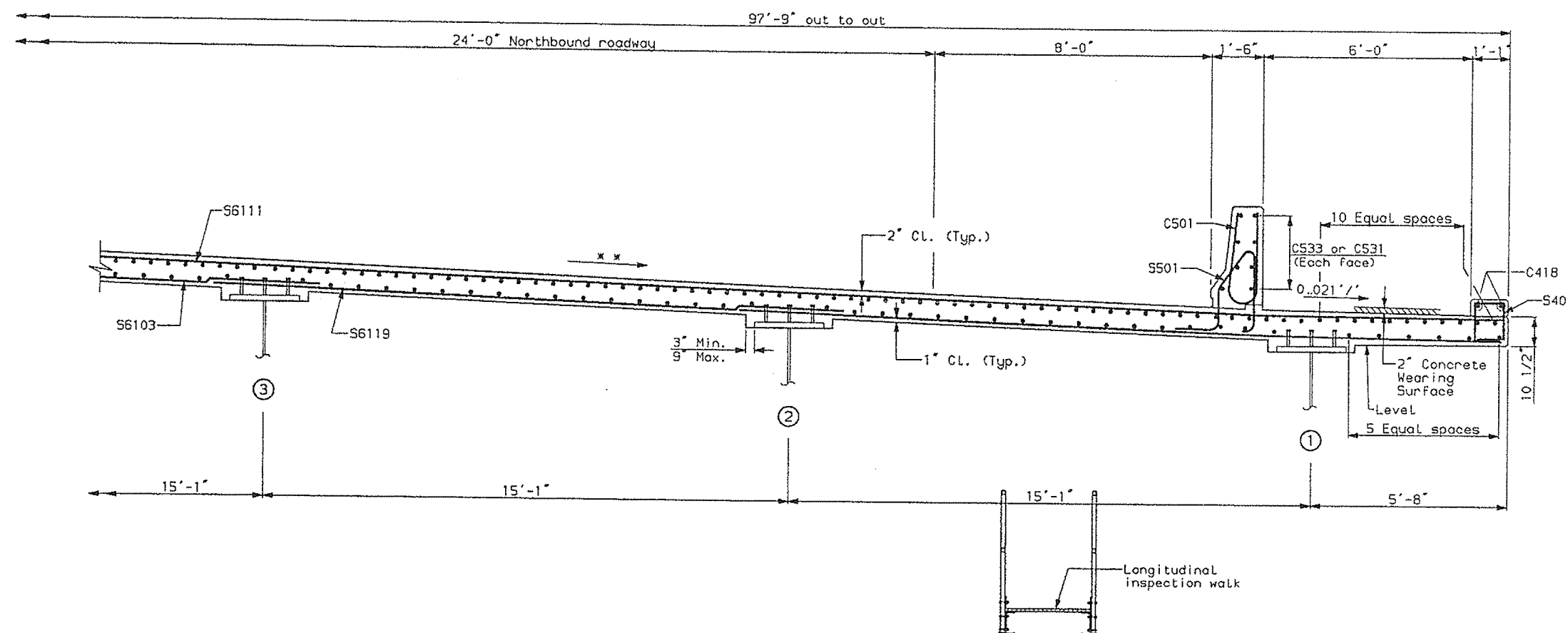
NORTH APP
SLAB CROSS SE

SHEET 118 OF 156 AUGUSTA,



TYPICAL CROSS SECTION

N.B.L. sta. 243+96.87 to sta. 247+66.94
S.B.L. sta. 444+26.96 to sta. 448+00.00



* * For roadway and shoulder cross slope,
see Method of Superelevation sheets.

NORTH APPROACH

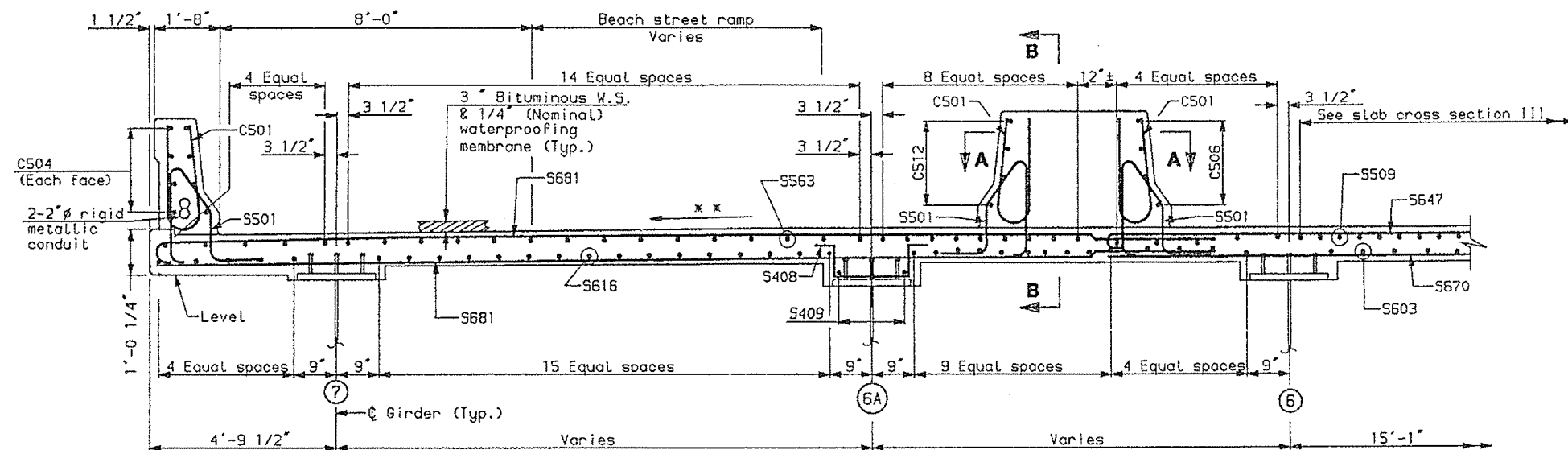
STATE OF MAI
DEPARTMENT OF TRANS

PORTLAND - S. PORT
OVER FORE F
CUMBERLAND C

NORTH APPF
SLAB CROSS SE

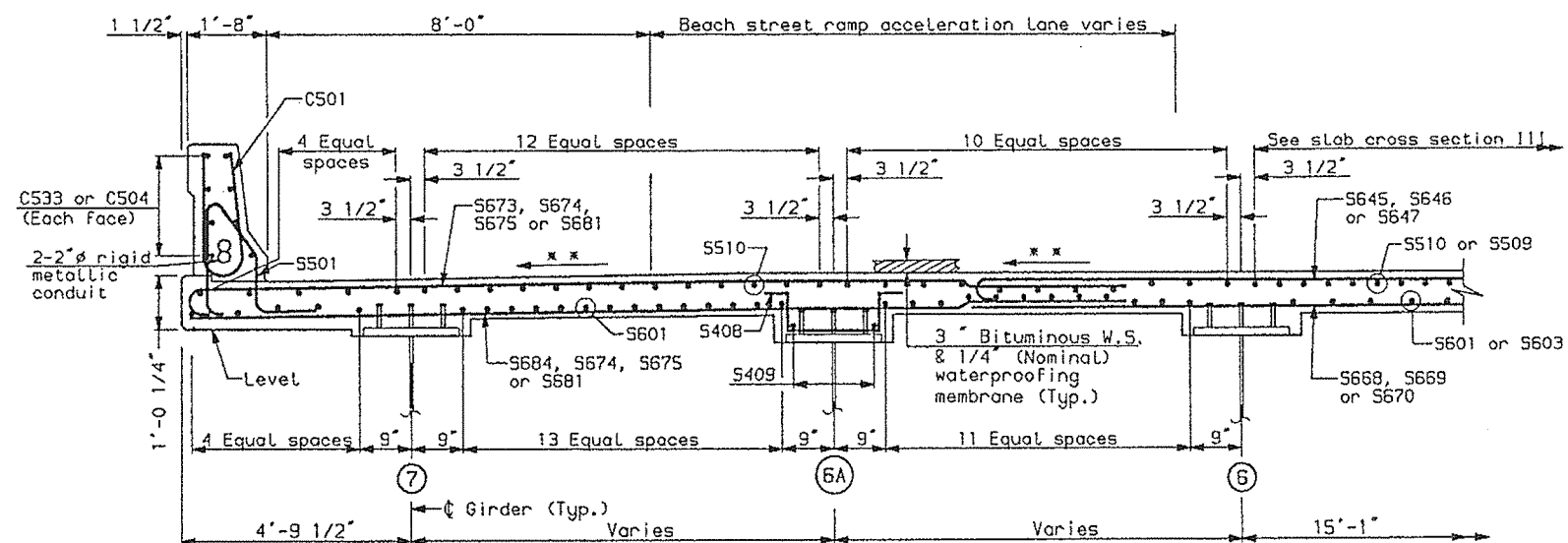
PLANS	2100R E.		Y		IE
	DESIGN-DETAILED	HCI	EAR, DTP		
	CHECKED		CJB	6-94	
	REVISION				
	FIELD CHANGES				

СЭ. № 3



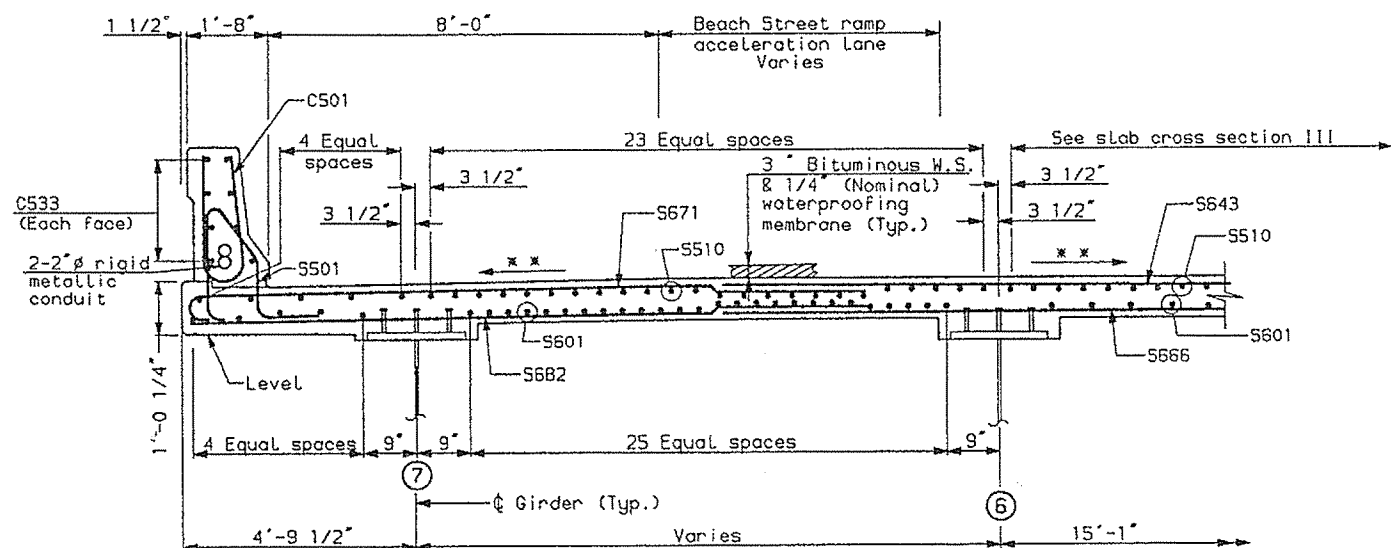
PARTIAL SECTION

N.B.L. sta. 248+50.00 at pier 6R Beach street ramp
S.B.L. sta. 448+83.73



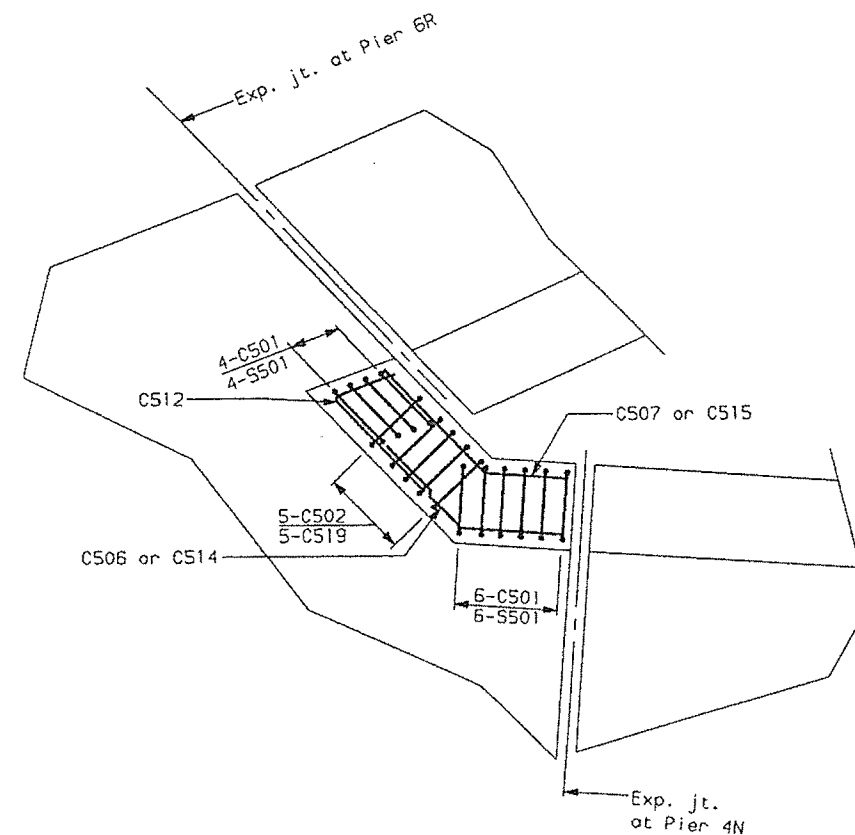
PARTIAL SECTION

N.B.L. sta. 248+05.69 to sta. 248+50.00
S.B.L. sta. 448+39.06 to sta. 448+83.73

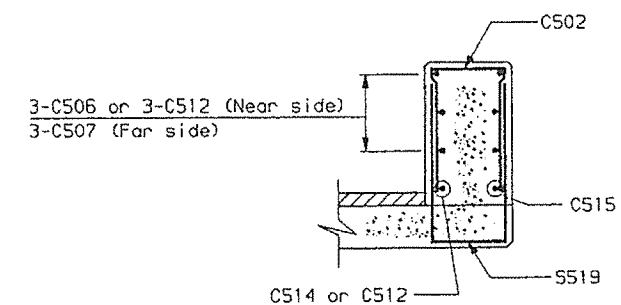


PARTIAL SECTION

N.B.L. sta. 247+66.94
S.B.L. sta. 448+00.00



SECTION A-A



SECTION B-B

* * For roadway and shoulder cross
see Method of Superelevation sho

NORTH APPROACH

STATE OF MA
DEPARTMENT OF TRAN

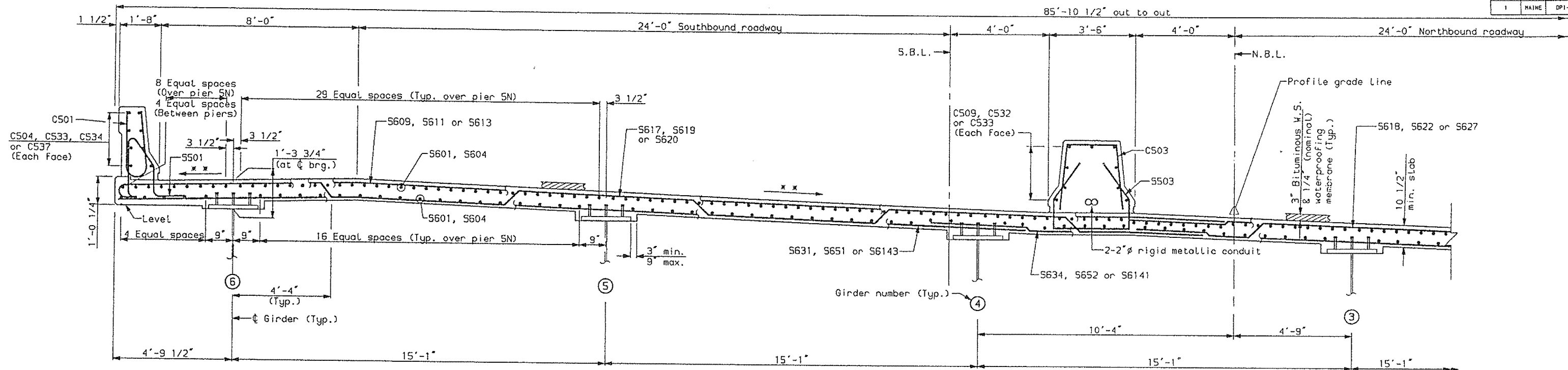
PORTLAND - S. PORT

OVER FORE

CUMBERLAND

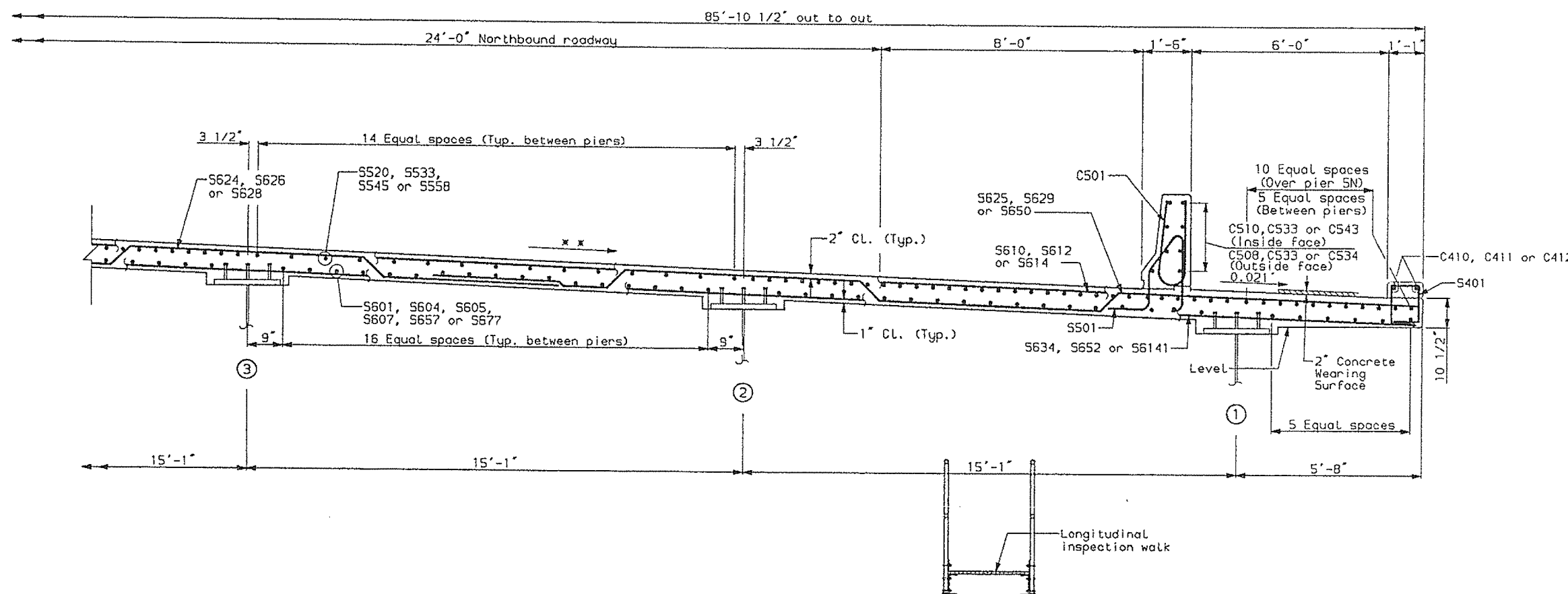
**NORTH APPALACHIAN
SLAB CROSS SECTION**

SHEET 120 OF 156 AUGUSTA,



TYPICAL CROSS SECTION

N.B.L. sta. 248+50.00 to sta. 253+29.50



* * For roadway and shoulder cross slope, see Method of Superelevation sheets.

NORTH APPROACH

STATE OF MAI
DEPARTMENT OF TRANS

PORTLAND - S. PORTI
OVER FORE R
CUMBERLAND C

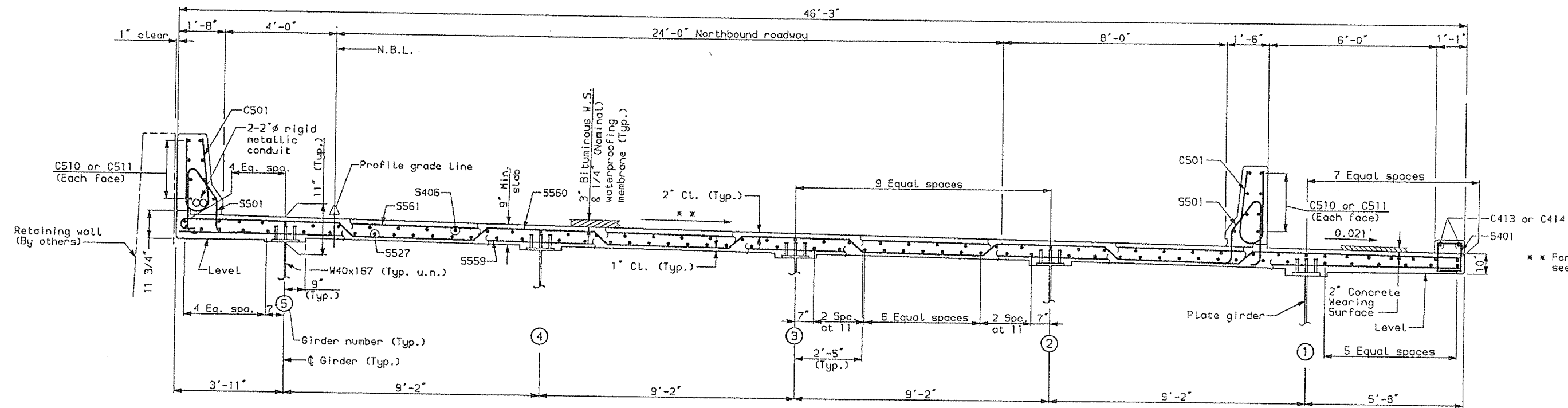
NORTH APPR
SLAB CROSS SE

SHEET 121 OF 156 AUGUSTA, I

DESIGN-DETAILED
CHECKED
REVISION
FIELD CHANGES

PLANS

cs.na5



For roadway and shoulder cross see Method of Superelevation sl

TYPICAL CROSS SECTION

N.B.L. sta. 253+31.63 to sta. 253+89.00

NORTH APPROACH

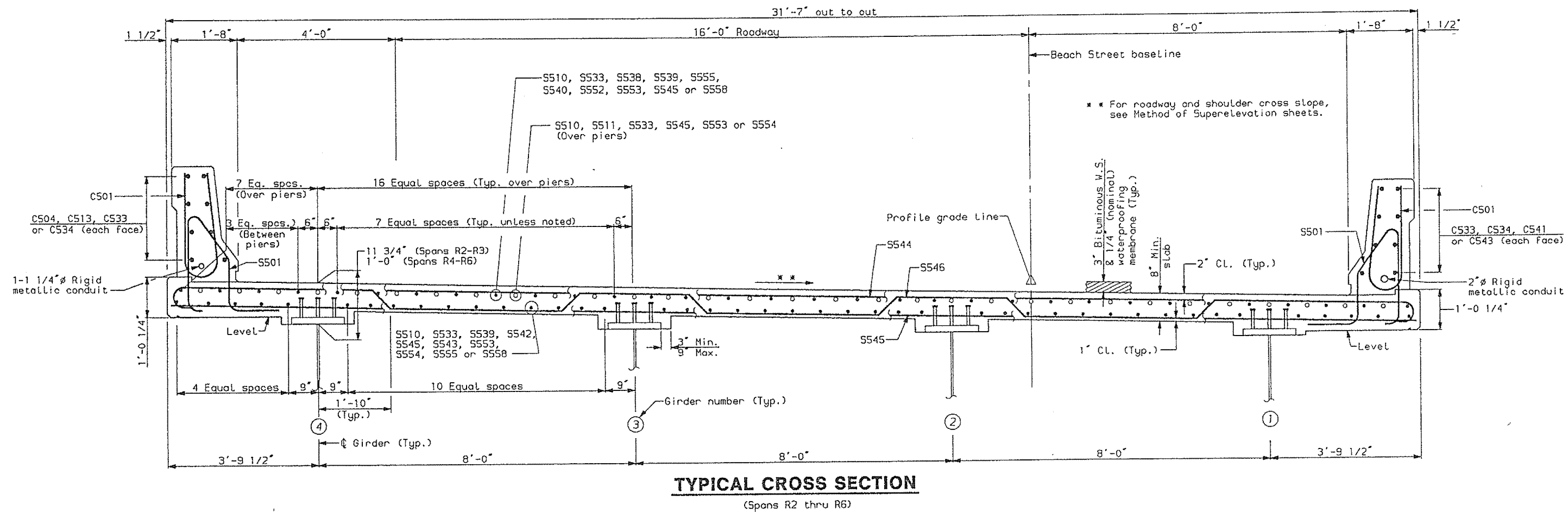
STATE OF MA
DEPARTMENT OF TRANS

PORTLAND - S. PORT
OVER FORE
CUMBERLAND (

NORTH APPP
SLAB CROSS SE

SHEET 122 OF 156 AUGUSTA,

PLANS	DESIGN-DRAWN	CHECKED	REVISION	FIELD CHANGES
BY	DATE	BY	DATE	
NCI	6-94	NCI	6-94	
RCB	6-94	RCB	6-94	



PROJECT	DESIGN ENGINEER	JY	DATE
DESIGN-DETAILED	MCI	EAR, DTP	6-94
CHECKED	HCB		6-94
REVISION			
FIELD CHANGES			

bed, cat

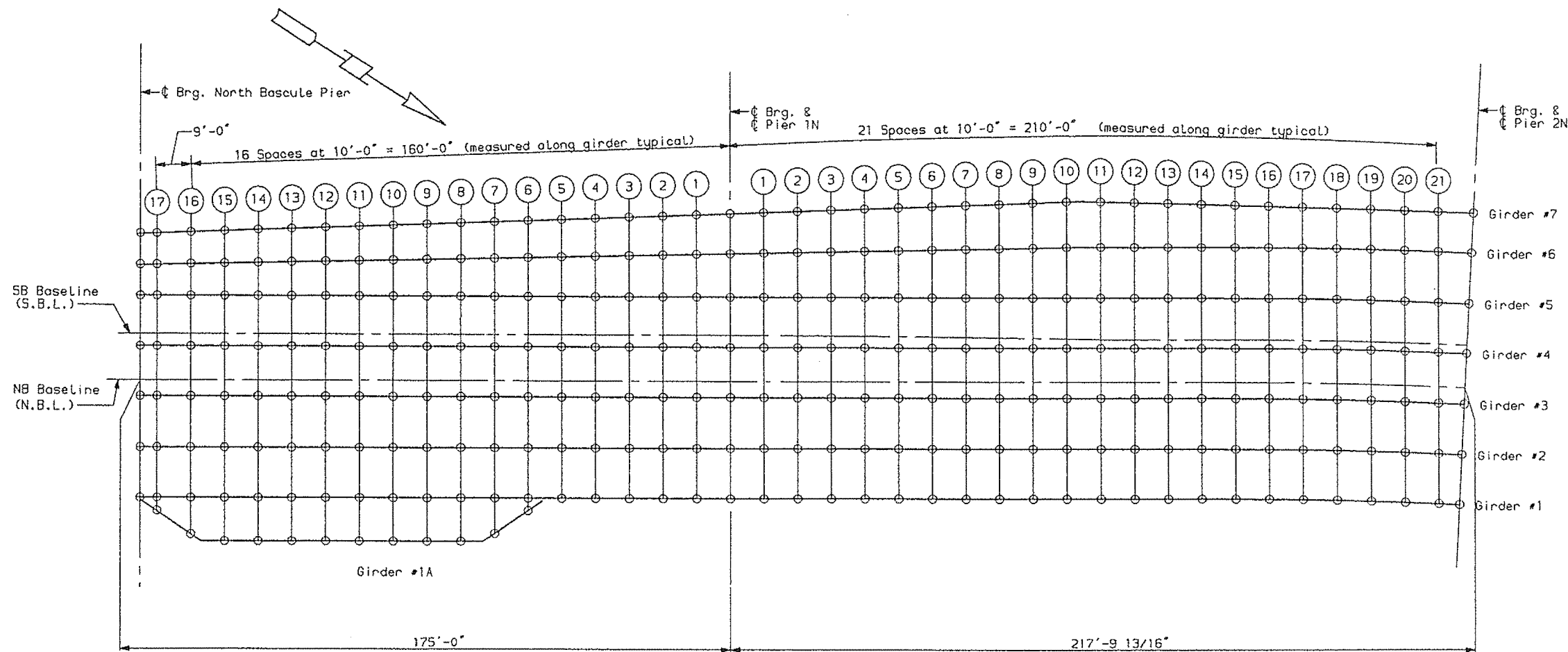
NORTH APPROACH

STATE OF M
DEPARTMENT OF TRA

PORTLAND - S. POR
OVER FORE
CUMBERLAND

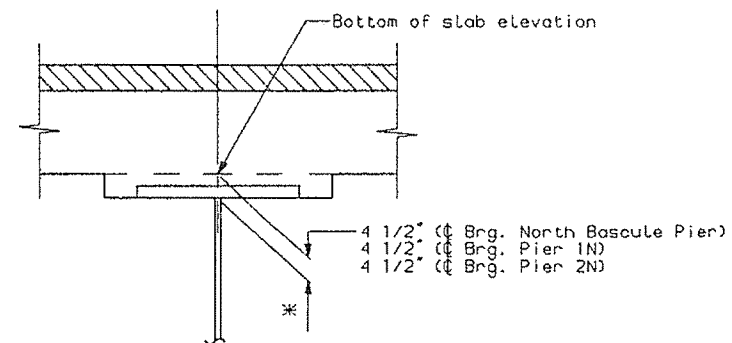
BEACH STREET
SLAB CROSS

SHEET 123 OF 156 AUGUSTA



SPAN N1

SPAN N2



BLOCKING DETAIL

* Not to be used for setting forms.

BOTTOM OF SLAB ELEVATIONS SPAN N1

Slab Points	Approach Brg. No. bascule pier	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Brg. Pier 1N
7	79.70	79.69	79.68	79.67	79.66	79.63	79.59	79.53	79.46	79.38	79.28	79.19	79.08	78.97	78.86	78.76	78.66	78.57	78.48
6	79.79	79.79	79.78	79.78	79.77	79.75	79.71	79.65	79.59	79.50	79.40	79.30	79.18	79.06	78.94	78.82	78.71	78.60	78.51
5	79.88	79.88	79.88	79.87	79.85	79.82	79.77	79.71	79.62	79.53	79.41	79.29	79.15	79.01	78.87	78.73	78.60	78.47	78.36
4	80.03	80.03	80.03	80.01	79.98	79.93	79.86	79.78	79.68	79.56	79.43	79.28	79.12	78.96	78.79	78.63	78.47	78.32	78.18
3	79.95	79.95	79.95	79.94	79.92	79.87	79.81	79.73	79.63	79.51	79.37	79.23	79.06	78.89	78.72	78.55	78.39	78.23	78.09
2	79.80	79.81	79.81	79.81	79.79	79.75	79.69	79.61	79.52	79.40	79.26	79.11	78.94	78.77	78.59	78.41	78.25	78.09	77.94
1	79.65	79.66	79.68	79.69	79.68	79.64	79.59	79.51	79.41	79.29	79.15	79.00	78.83	78.63	78.44	78.26	78.09	77.93	77.77
1A	-	79.60	79.59	79.53	79.52	79.48	79.43	79.35	79.25	79.13	78.99	78.91	78.78						-

BOTTOM OF SLAB ELEVATIONS SPAN N2

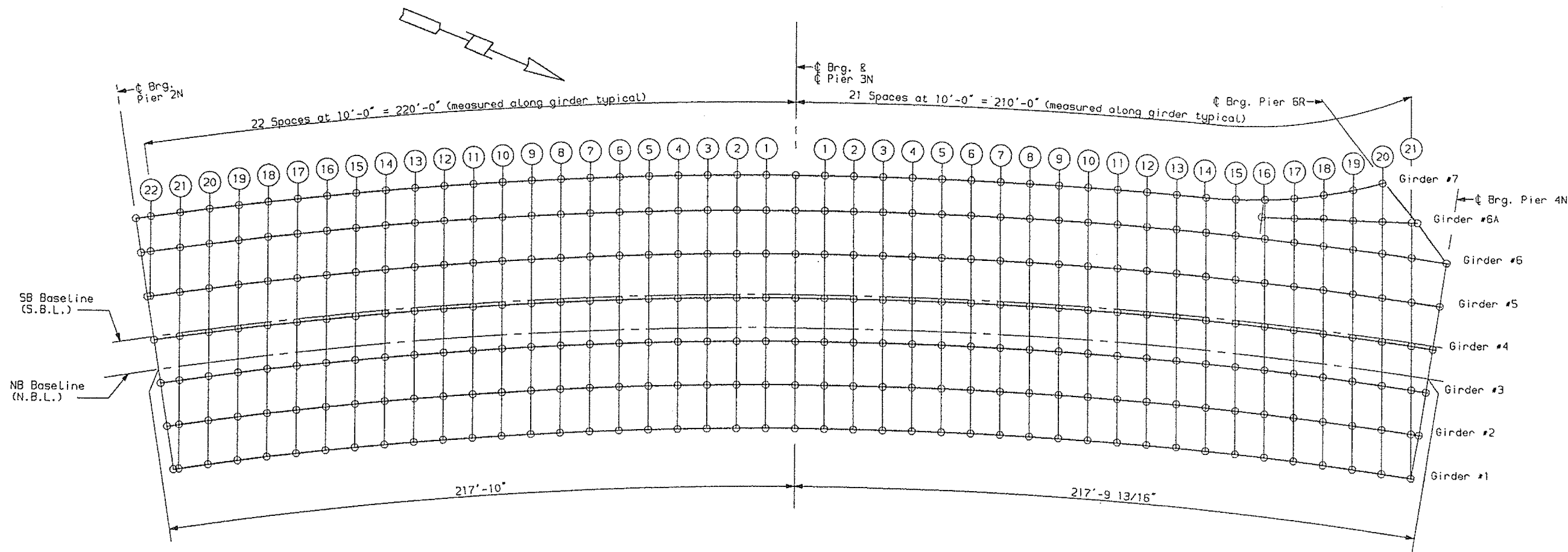
Slab Points	Brg. Pier 1N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Brg. Pier 2N
7	78.48	78.42	78.36	78.31	78.26	78.22	78.17	78.13	78.07	78.00	77.91	77.80	77.67	77.51	77.35	77.16	76.97	76.77	76.57	76.37	76.15	75.91	75.67
6	78.51	78.43	78.36	78.29	78.24	78.18	78.12	78.06	77.99	77.90	77.80	77.68	77.54	77.39	77.21	77.03	76.83	76.63	76.42	76.21	75.98	75.74	75.51
5	78.36	78.26	78.16	78.08	78.00	77.92	77.84	77.76	77.67	77.56	77.43	77.29	77.13	76.96	76.77	76.56	76.34	76.12	75.89	75.65	75.41	75.17	74.95
4	78.18	78.06	77.94	77.84	77.74	77.64	77.54	77.44	77.33	77.21	77.06	76.90	76.72	76.53	76.31	76.08	75.85	75.60	75.35	75.09	74.84	74.59	74.39
3	78.09	77.96	77.85	77.74	77.64	77.54	77.44	77.32	77.19	77.05	76.88	76.70	76.49	76.27	76.03	75.77	75.50	75.23	74.95	74.67	74.40	74.15	73.97
2	77.94	77.81	77.69	77.58	77.47	77.37	77.27	77.14	76.98	76.80	76.61	76.39	76.16	75.91	75.64	75.35	75.05	74.73	74.42	74.11	73.83	73.57	73.41
1	77.77	77.64	77.51	77.40	77.29	77.19	77.09	76.94	76.75	76.55	76.33	76.09	75.83	75.55	75.25	74.93	74.60	74.25	73.91	73.57	73.28	73.02	72.87

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

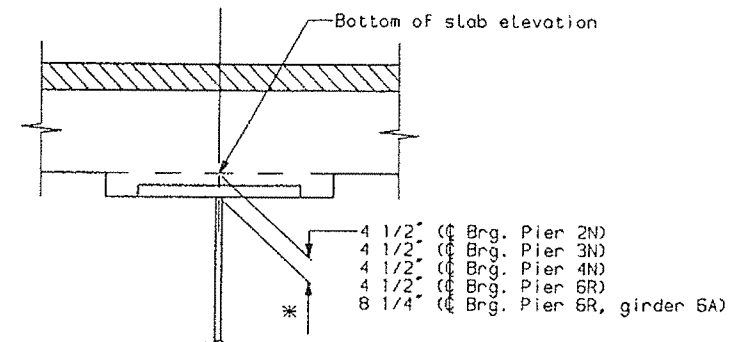
PORTLAND - S. PORT
OVER FORE
CUMBERLAND

BOTTOM OF SLAB
SPANS N



SPAN N3

SPAN N4



BLOCKING DETAIL

* Not to be used for setting forms.

BOTTOM OF SLAB ELEVATIONS SPAN N3

Slab Points	¢ Brg. Pier 2N	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	¢ Brg. Pier 3N
7	75.67	75.54	75.34	75.15	74.97	74.80	74.63	74.46	74.29	74.09	73.88	73.66	73.43	73.19	72.94	72.69	72.43	72.16	71.90	71.65	71.41	71.18	70.96	70.75
6	75.51	75.43	75.22	75.03	74.84	74.67	74.50	74.33	74.15	73.96	73.76	73.55	73.33	73.10	72.86	72.61	72.35	72.10	71.84	71.60	71.36	71.14	70.93	70.73
5	74.95	74.92	74.71	74.51	74.32	74.14	73.97	73.79	73.62	73.44	73.24	73.03	72.82	72.59	72.35	72.10	71.86	71.60	71.36	71.11	70.88	70.67	70.46	70.27
4	74.39		74.19	73.99	73.79	73.61	73.44	73.26	73.08	72.90	72.70	72.50	72.28	72.05	71.81	71.56	71.31	71.05	70.80	70.56	70.33	70.11	69.90	69.71
3	73.97		73.81	73.60	73.40	73.21	73.04	72.86	72.68	72.49	72.29	72.08	71.86	71.63	71.39	71.14	70.89	70.63	70.38	70.14	69.90	69.68	69.48	69.28
2	73.41		73.30	73.08	72.88	72.68	72.50	72.31	72.13	71.94	71.74	71.53	71.31	71.08	70.84	70.58	70.33	70.07	69.82	69.58	69.35	69.12	68.92	68.72
1	72.87		72.82	72.59	72.38	72.18	71.99	71.80	71.61	71.41	71.21	71.00	70.78	70.54	70.30	70.05	69.80	69.54	69.29	69.05	68.81	68.59	68.38	68.19

BOTTOM OF SLAB ELEVATIONS SPAN N4

Slab Points	¢ Brg. Pier 3N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	¢ Brg. Pier 4N
7	70.75	70.57	70.39	70.23	70.08	69.93	69.79	69.64	69.48	69.30	69.11	68.90	68.67	68.43	68.24	68.05	67.70	67.31	66.89	66.43	65.96		* 65.88
6A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67.87	67.53	67.17	66.81	66.46	66.12	* 66.02
6	70.73	70.56	70.39	70.24	70.10	69.96	69.83	69.69	69.55	69.39	69.21	69.01	68.80	68.58	68.48	68.28	67.99	67.69	67.37	66.95	66.64	66.33	65.94
5	70.27	70.10	69.94	69.80	69.67	69.54	69.42	69.30	69.17	69.02	68.85	68.66	68.46	68.24	68.01	67.76	67.49	67.21	66.92	66.61	66.29	65.96	65.62
4	69.71	69.54	69.39	69.24	69.11	68.99	68.87	68.75	68.61	68.47	68.30	68.12	67.92	67.70	67.46	67.20	66.93	66.64	66.33	66.01	65.68	65.33	65.06
3	69.28	69.12	68.96	68.82	68.69	68.57	68.44	68.32	68.19	68.04	67.88	67.69	67.49	67.26	67.02	66.76	66.47	66.17	65.86	65.53	65.18	64.83	64.63
2	68.72	68.56	68.40	68.26	68.13	68.00	67.88	67.76	67.63	67.47	67.30	67.11	66.90	66.68	66.43	66.16	65.87	65.56	65.24	64.90	64.55	64.19	64.08
1	68.19	68.02	67.86	67.72	67.59	67.46	67.34	67.22	67.08	66.92	66.75	66.55	66.33	66.10	65.84	65.57	65.28	64.96	64.64	64.29	63.94	63.57	63.54

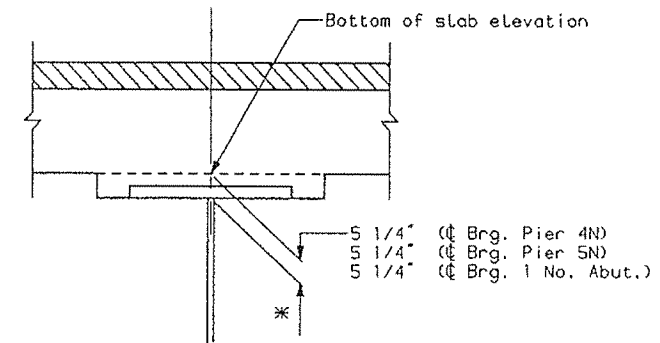
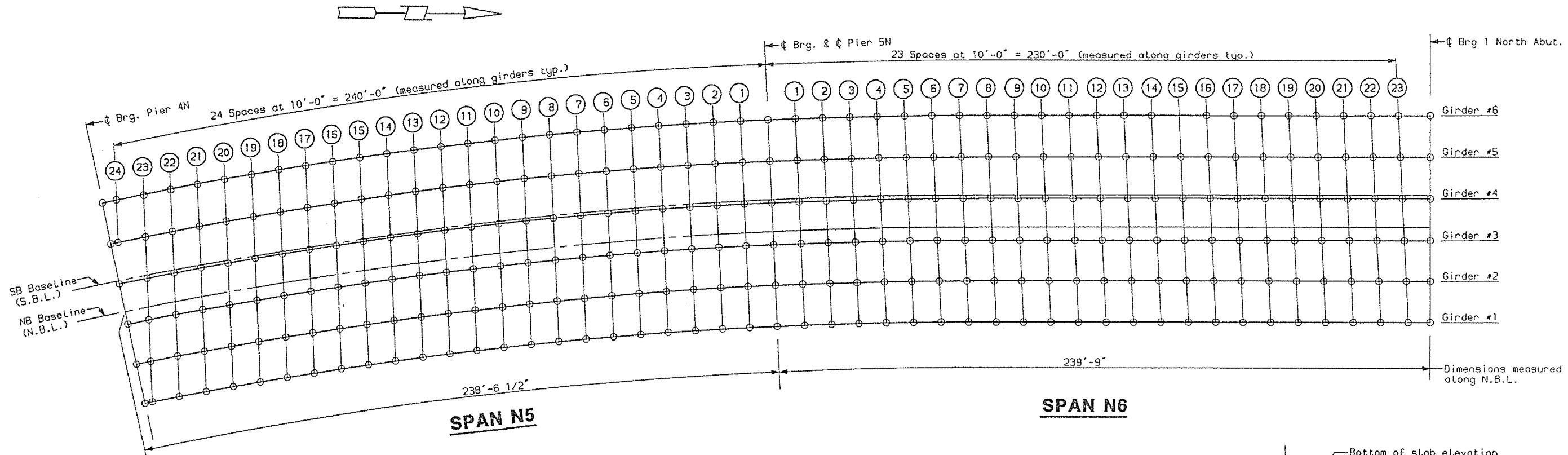
* At ¢ Brg. Pier 6R

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORD
CUMBERLAND

BOTTOM OF SLAB
SPANS N3



BLOCKING DETAIL

* Not to be used for setting forms.

BOTTOM OF SLAB ELEVATIONS SPAN N5

BOTTOM OF SLAB ELEVATIONS SPAN N5																											
Slab Points		‡ Brg. Pier 4N	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	‡ Brg. Pier 5N
Girders	6	65.87	65.84	65.78	65.70	65.61	65.51	65.39	65.25	65.09	64.92	64.74	64.53	64.30	64.06	63.80	63.52	63.22	62.90	62.58	62.26	61.94	61.64	61.35	61.07	60.80	60.55
	5	65.55	65.54	65.48	65.40	65.32	65.22	65.10	64.97	64.82	64.65	64.46	64.25	64.03	63.78	63.52	63.25	62.95	62.64	62.32	62.01	61.70	61.40	61.11	60.84	60.58	60.33
	4	64.99		64.93	64.85	64.76	64.66	64.54	64.41	64.26	64.09	63.90	63.69	63.47	63.22	62.96	62.69	62.40	62.09	61.78	61.47	61.17	60.88	60.60	60.34	60.08	59.84
	3	64.56		64.51	64.43	64.34	64.23	64.11	63.98	63.83	63.66	63.47	63.26	63.03	62.79	62.53	62.25	61.96	61.66	61.35	61.05	60.76	60.48	60.21	59.95	59.70	59.47
	2	64.01		63.97	63.88	63.78	63.68	63.55	63.42	63.26	63.09	62.90	62.69	62.46	62.22	61.95	61.68	61.39	61.09	60.80	60.51	60.23	59.95	59.69	59.44	59.21	58.98
	1	63.47		63.45	63.36	63.25	63.14	63.02	62.88	62.72	62.55	62.35	62.14	61.91	61.67	61.40	61.13	60.84	60.55	60.27	59.99	59.71	59.45	59.20	58.96	58.73	58.51

BOTTOM OF SLAB ELEVATIONS SPAN N6

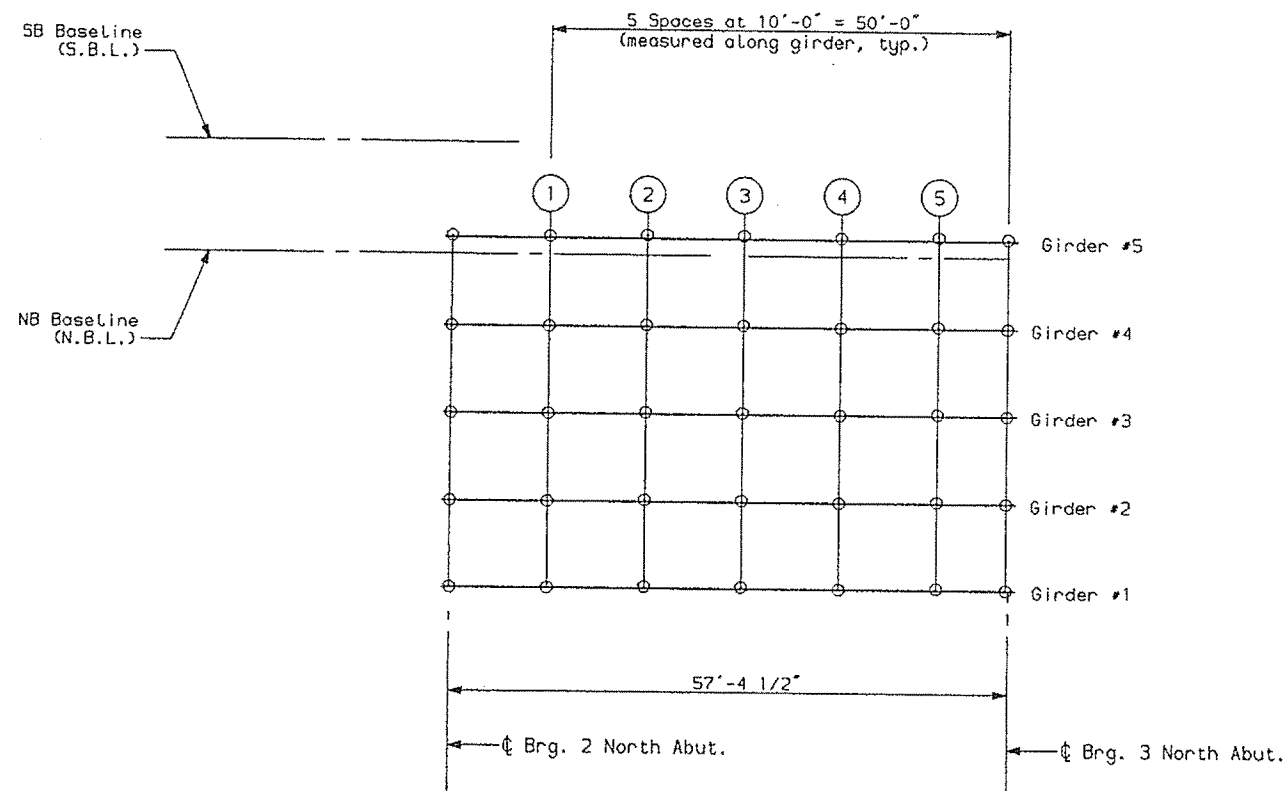
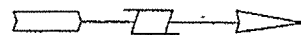
BOTTOM OF SLAB ELEVATIONS SPAN N6																										
Slab Points		⊥ Brg. Pier 5N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	⊥ Brg. No. Abut.
Girders	6	60.55	60.33	60.13	59.95	59.79	59.65	59.53	59.43	59.35	59.27	59.19	59.12	59.05	58.98	58.90	58.82	58.74	58.65	58.55	58.43	58.30	58.15	58.01	57.86	57.67
	5	60.33	60.12	59.92	59.75	59.60	59.47	59.36	59.27	59.19	59.12	59.05	58.98	58.92	58.85	58.78	58.71	58.63	58.54	58.44	58.32	58.19	58.05	57.90	57.74	57.56
	4	59.84	59.64	59.45	59.29	59.15	59.04	58.94	58.85	58.79	58.72	58.67	58.61	58.55	58.49	58.43	58.36	58.29	58.21	58.11	58.00	57.87	57.73	57.58	57.42	57.25
	3	59.47	59.27	59.10	58.94	58.81	58.70	58.61	58.54	58.48	58.42	58.37	58.32	58.27	58.22	58.16	58.10	58.03	57.95	57.85	57.74	57.62	57.48	57.33	57.16	57.00
	2	58.98	58.80	58.63	58.48	58.36	58.26	58.18	58.12	58.07	58.02	57.98	57.94	57.90	57.85	57.80	57.74	57.67	57.60	57.51	57.41	57.29	57.16	57.00	56.84	56.69
	1	58.51	58.34	58.18	58.04	57.93	57.84	57.77	57.72	57.67	57.64	57.60	57.57	57.53	57.49	57.44	57.39	57.33	57.26	57.18	57.08	56.96	56.83	56.68	56.51	56.37

NORTH APPROACH

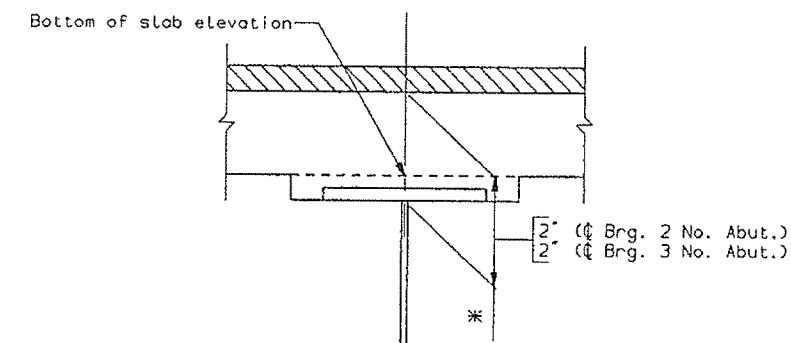
STATE OF MA
DEPARTMENT OF TRAN

**PORTLAND - S. PORT
OVER FORE
CUMBERLAND**

**BOTTOM OF SLAB
SPANS N5**



SPAN N7



BLOCKING DETAIL

* Not to be used for setting forms.

BOTTOM OF SLAB ELEVATIONS SPAN N7								
Slab Points	¢ Brg. 2 No. Abut.	1	2	3	4	5	¢ Brg. 3 No. Abut.	
Girders								
5	57.24	57.58	57.94	58.06	57.90	57.51	56.96	
4	57.05	57.40	57.76	57.89	57.73	57.33	56.77	
3	56.86	57.21	57.57	57.70	57.54	57.14	56.58	
2	56.67	57.02	57.38	57.51	57.35	56.95	56.39	
1	56.48	56.57	56.66	56.71	56.66	56.49	56.20	

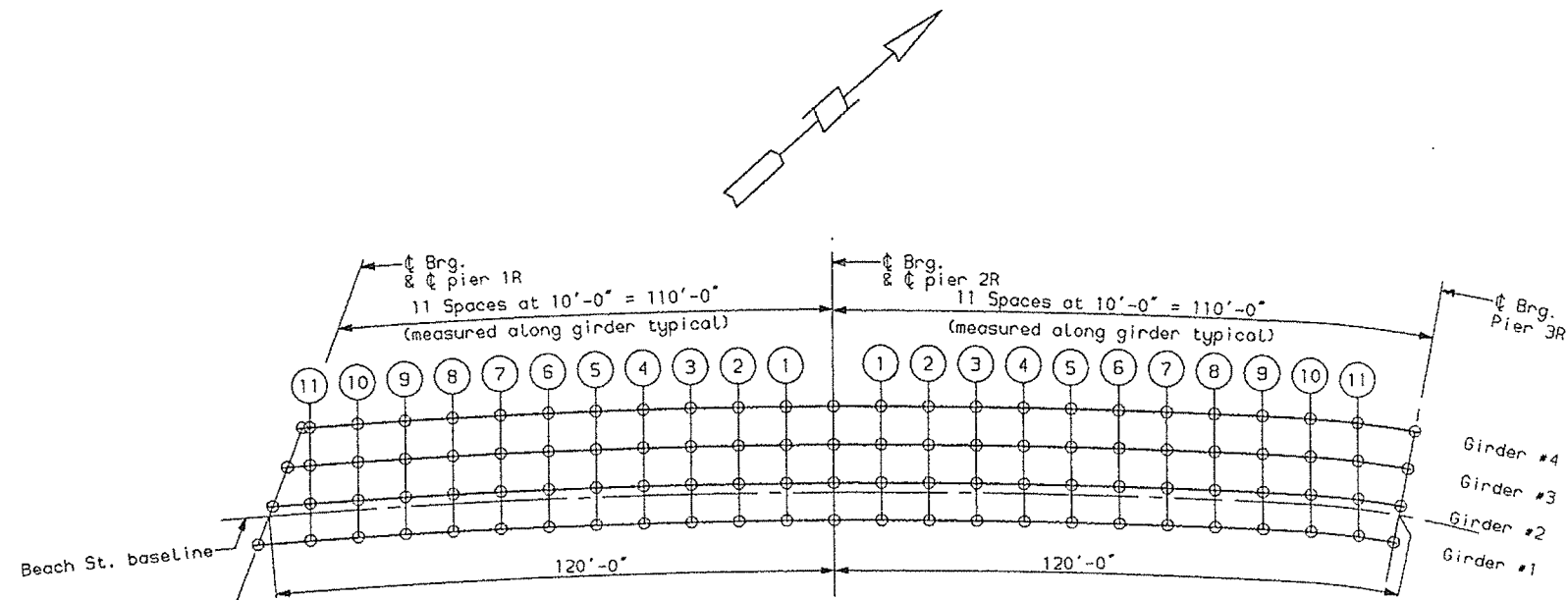
NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY

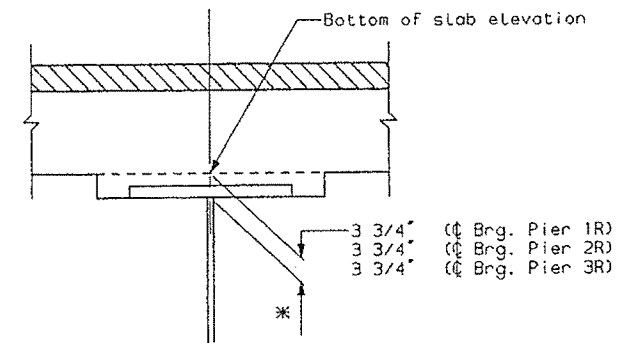
BOTTOM OF SLAB ELEVATIONS
SPAN N7

SHEET 127 OF 156 AUGUSTA, 1991



SPAN R2

SPAN R3



BLOCKING DETAIL

* Not to be used for setting forms.

BOTTOM OF SLAB ELEVATIONS SPAN R2

Slab Points	¢ Brg. Pier 1R	11	10	9	8	7	6	5	4	3	2	1	¢ Brg. Pier 2R
Girders													
4	44.71	44.85	45.47	46.08	46.66	47.23	47.76	48.28	48.77	49.26	49.73	50.21	50.70
3	44.31	44.65	45.28	45.89	46.48	47.05	47.59	48.10	48.60	49.08	49.55	50.03	50.51
2	43.90	44.45	45.09	45.71	46.30	46.87	47.41	47.93	48.42	48.90	49.37	49.85	50.33
1	43.49	44.26	44.90	45.53	46.12	46.70	47.24	47.75	48.25	48.73	49.20	49.67	50.14

BOTTOM OF SLAB ELEVATIONS SPAN R3

Slab Points	¢ Brg. Pier 2R	1	2	3	4	5	6	7	8	9	10	11	¢ Brg. Pier 3R
Girders													
4	50.70	51.20	51.70	52.22	52.74	53.25	53.74	54.20	54.63	55.02	55.38	55.70	56.08
3	50.51	51.01	51.51	52.02	52.53	53.02	53.49	53.94	54.35	54.74	55.09	55.42	55.76
2	50.33	50.82	51.32	51.82	52.31	52.79	53.25	53.68	54.08	54.46	54.81	55.14	55.45
1	50.14	50.63	51.13	51.62	52.09	52.56	53.00	53.42	53.81	54.18	54.53	54.87	55.13

NORTH APPROX

STATE OF MA
DEPARTMENT OF TRAN

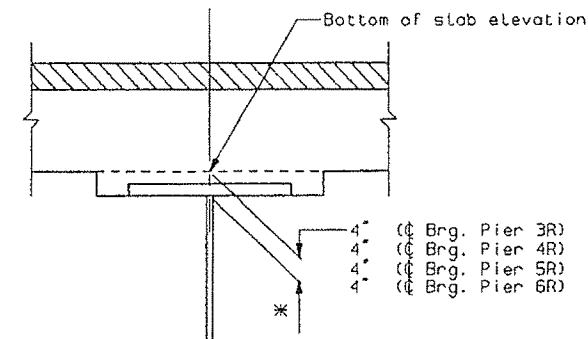
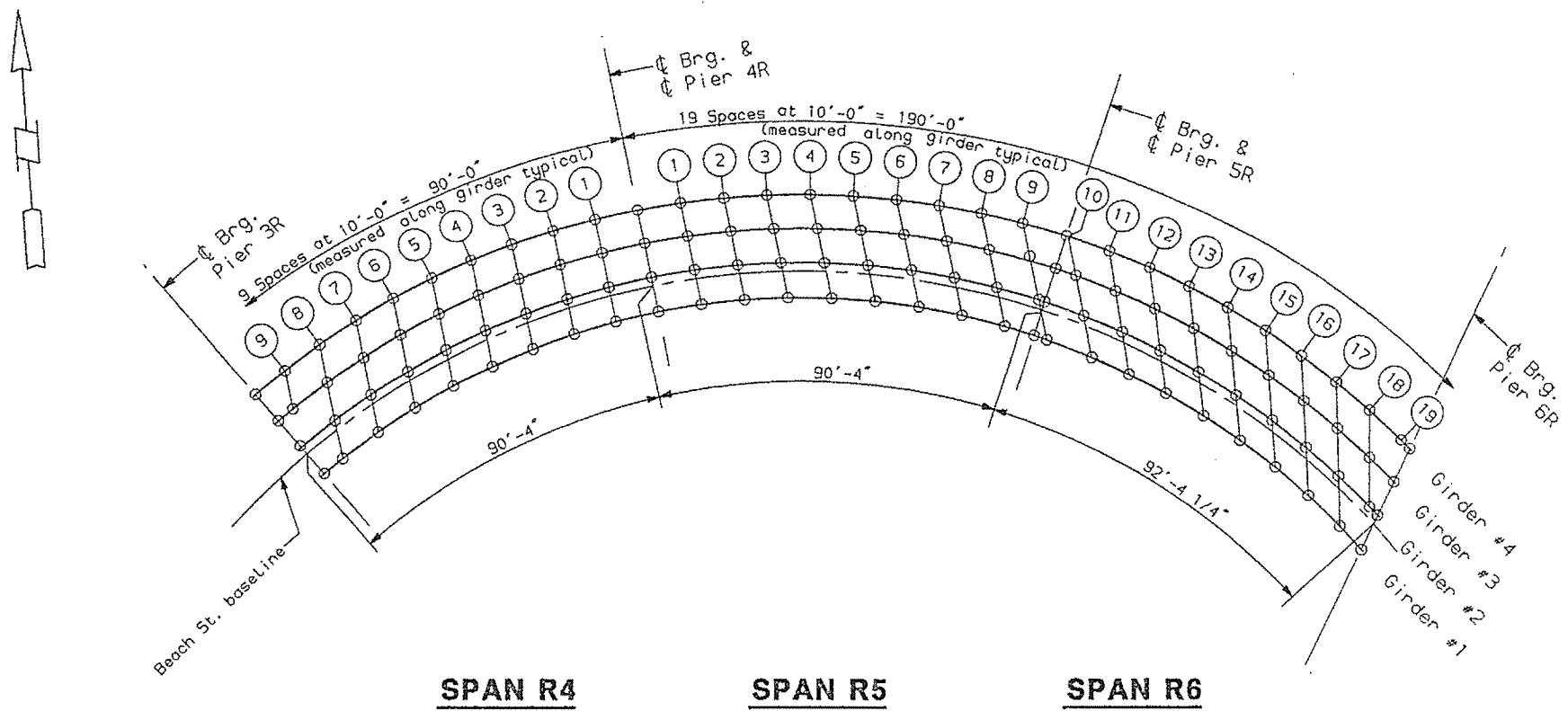
**PORTLAND - S. POR
OVER FORE
CUMBERLAND**

**BOTTOM OF SLAB
SPANS R**

SHEET 128 OF 156 AUGUSTA

PLANS

01.22.23



BLOCKING DETAIL
* Not to be used for setting forms.

PR	DESIGN	ER	BY	DATE
	DESIGN-DETAILED		JAB	6-94
	CHECKED		PDB	6-94
	REVISION			
	FIELD CHANGES			

PLANS

13

04.14.95

BOTTOM OF SLAB ELEVATIONS SPAN R4											
Slab Points	¢ Brg. Pier 3R	9	8	7	6	5	4	3	2	1	¢ Brg. Pier 4R
Girders											
4	56.15	56.51	56.92	57.31	57.69	58.04	58.37	58.68	58.99	59.29	59.60
3	55.83	56.02	56.44	56.84	57.23	57.60	57.95	58.29	58.62	58.95	59.28
2	55.52		55.96	56.37	56.77	57.16	57.54	57.90	58.25	58.61	58.96
1	55.21		55.47	55.89	56.31	56.71	57.11	57.50	57.88	58.26	58.64

BOTTOM OF SLAB ELEVATIONS SPAN R5 AND R6																					
Slab Points	¢ Brg. Pier 4R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	¢ Brg. Pier 6R
Girders																					
4	59.60	59.94	60.28	60.63	60.98	61.33	61.68	62.03	62.38	62.74	63.10	63.48	63.87	64.24	64.56	64.87	65.18	65.43	65.69	65.93	65.98
3	59.28	59.64	60.00	60.37	60.74	61.10	61.46	61.83	62.19	62.56	62.94	63.34	63.73	64.10	64.45	64.79	65.11	65.42	65.71		65.92
2	58.96	59.34	59.72	60.11	60.50	60.88	61.25	61.63	62.01	62.39	62.79	63.20	63.60	64.00	64.38	64.75	65.11	65.45	65.79		65.85
1	58.64	59.05	59.45	59.86	60.26	60.66	61.05	61.44	61.84	62.24	62.66	63.08	63.50	63.92	64.33	64.73	65.12	65.50			65.75

NORTH APPROACH
STATE OF M.
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. POR
OVER FORE
CUMBERLAND**

**BOTTOM OF SLAB
SPANS R**

SHEET 129 OF 156 AUGUSTA

F.H.W.A. REG. NO.	STATE	PRY
1	MAINE	DP

STRAIGHT BARS

MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	REMARKS
C402	16	16'-0"	Parapet	S524	9	5'-10"	Slab transverse	S802	66	10'-7"	Abut. longitudinal	
C403	6	5'-0"	Parapet	S522	6	7'-1"	Slab transverse	S6114	170	47'-5"	Slab transverse	
C410	2	16'-3"	Curb	S524	9	5'-10"	Slab transverse	S802	66	10'-7"	Abut. longitudinal	
C411	24	38'-2"	Curb	S525	27	6'-1"	Slab transverse	S803	22	36'-8"	Abut. transverse	
C412	2	18'-6"	Curb	S527	55	58'-0"	Slab longitudinal	S901	63	34'-6"	Slab longitudinal	
C413	2	31'-8"	Curb	S528	40	34'-6"	Parapet	S902	63	23'-0"	Slab longitudinal	
C414	2	29'-2"	Curb	S530	63	17'-6"	Slab longitudinal					
C417	4	44'-0"	Curb	S533	166	36'-8"	Slab longitudinal					
C418	24	60'-0"	Curb	S536	12	2'-10"	Slab transverse					length varies 28'-0" to 3'-1" by 1'-1" incr.
C419	2	3'-11"	Curb	S537	9	6'-5"	Slab transverse	S548	24	28'-0" to 3'-1"	Slab transverse	12 sets of 2, length varies between each set 13'-0" to 27'-8" by 1'-4" incr.
C504	12	30'-8"	Parapet	S538	48	41'-6"	Slab longitudinal	S562	24	13'-0" to 27'-8"	Slab longitudinal	length varies 5'-0" to 28'-4" by 10" incr.
C505	8	25'-6"	Parapet	S539	85	30'-0"	Slab longitudinal	S563	29	5'-0" to 28'-4"	Slab longitudinal	9 sets of 2, length varies between each set 13'-0" to 27'-8" by 1'-10" incr.
C508	4	38'-0"	Parapet	S540	64	44'-0"	Slab longitudinal	S615	18	13'-0" to 27'-8"	Slab longitudinal	length varies 5'-0" to 28'-9" by 9 1/2" incr.
C509	9	34'-3"	Median	S542	65	43'-6"	Slab longitudinal	S616	31	5'-0" to 28'-9"	Slab longitudinal	length varies 54'-3" to 38'-9" by 3" incr.
C510	20	32'-2"	Parapet	S543	86	42'-0"	Slab longitudinal	S630	63	54'-3" to 38'-3"	Slab longitudinal	length varies 57'-3" to 41'-9" by 3" incr.
C511	16	29'-2"	Parapet	S545	612	31'-3"	Slab transverse	S632	63	57'-3" to 41'-3"	Slab longitudinal	2 sets of 27, length varies between each set 29'-0" to 3'-0" by 1'-0" incr.
C513	16	35'-0"	Parapet	S551	2	33'-7"	Slab longitudinal	S633	54	29'-1" to 2'-0"	Slab transverse	3 sets of 4 and 1 set of 5, length varies between each set 38'-5" to 38'-8 3/4" by 1 1/4" incr.
C521	14	4'-6"	Median	S552	43	40'-4"	Slab longitudinal	S658	17	38'-5" to 38'-8 3/4"	Slab transverse	2 sets of 25, length varies 15'-6" to 4'-6" by 5 1/2" incr.
C529	3	3'-4"	Median	S553	211	38'-0"	Slab longitudinal	S675	50	15'-6" to 4'-6"	Slab transverse	length varies 44'-5" to 54'-5" by 4" incr.
C530	9	46'-0"	Median	S554	69	42'-4"	Slab longitudinal	S6105	30	44'-5" to 54'-5"	Slab transverse	length varies 54'-5" to 44'-5" by 4" incr.
C531	8	18'-0"	Parapet	S555	113	36'-0"	Slab longitudinal	S6107	30	54'-5" to 44'-5"	Slab transverse	length varies 37'-5" to 47'-5" by 4" incr.
C532	23	50'-0"	Parapet	S557	23	16'-1"	Slab transverse	S6113	30	37'-5" to 47'-5"	Slab transverse	length varies 47'-5" to 37'-5" by 4" incr.
C533	7641	60'-0"	Parapet, Median	S558	50	26'-0"	Slab longitudinal	S6115	30	47'-5" to 37'-5"	Slab transverse	
C534	40	36'-0"	Parapet, Median	S559	59	45'-11"	Slab transverse					
C535	8	6'-0"	Parapet	S564	12	3'-10"	Slab transverse					
C537	4	55'-2"	Parapet	S565	6	7'-5"	Slab transverse					
C539	16	40'-3"	Parapet	S566	3	8'-11"	Slab transverse					
C541	8	51'-0"	Parapet	S567	6	9'-4"	Slab transverse					
C543	20	42'-0"	Parapet	S568	3	10'-3"	Slab transverse					
C544	8	10'-6"	Parapet	S570	3	11'-10"	Slab transverse					
S402	20	13'-0"	Slab transverse	S571	21	12'-0"	Slab transverse					
S406	96	30'-6"	Slab longitudinal	S572	18	12'-5"	Slab transverse					
S409	4	28'-0"	Slab longitudinal	S573	17	13'-4"	Slab transverse					
S410	4	10'-3"	Slab transverse	S574	2	14'-11"	Slab transverse					
S411	2	10'-11"	Slab transverse	S575	2	15'-5"	Slab transverse					
S412	2	12'-0"	Slab transverse	S601	3647	60'-0"	Slab longitudinal					
S413	28	13'-4"	Slab transverse	S602	134	38'-1"	Slab longitudinal					
S505	66	4'-7"	Slab transverse	S603	96	32'-0"	Slab longitudinal					
S506	15	3'-6"	Slab transverse	S604	1160	40'-4"	Slab longitudinal					
S507	30	13'-0"	Slab transverse	S605	30	33'-2"	Slab longitudinal					
S509	91	32'-0"	Slab longitudinal	S606	304	51'-0"	Slab longitudinal					
S510	646	60'-0"	Slab longitudinal	S607	192	57'-10"	Slab longitudinal					
S511	31	47'-0"	Slab longitudinal	S608	172	31'-3"	Slab transverse					
S513	27	2'-6"	Slab transverse	S657	192	50'-0"	Slab longitudinal					
S514	15	11'-0"	Slab transverse	S677	33	43'-0"	Slab longitudinal					
S515	23	3'-1"	Slab transverse	S681	124	4'-6"	Slab transverse					
S516	6	4'-10"	Slab transverse	S6104	5	44'-5"	Slab transverse					
S517	24	7'-10"	Slab transverse	S6106	170	54'-5"	Slab transverse					
S520	344	55'-7"	Slab longitudinal	S6108	244	44'-5"	Slab transverse					

NOTES:

ALL dimensions are out to o
Bending details and hooks s
the recommendations of the
of ACI Standard 318.

First digit following the L mark indicates size of rein

Mark (C502) bar size
Mark (5603) bar size

Each truss bar, types 12, 1 and 27, may be replaced by bars (one top and one bottom) of the same bar size as the truss bar. Case shall be based on truss scheduled on plans.

ALL dimensions in parentheses
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SHEET 130 OF 156 AUGUST.

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN-DETAILED	DTP	6-94
	CHECKED	HCB	6-94
	REVISION		
	FIELD CHANGES		

15,40,54

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REINFORCING STEEL SCHEDULE

F.M.W.A. REG. NO.	STATE	PROJEC
1	MAINE	DPI-0

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	REMARKS
C401	2	6'-7"	11	0'-0"	5'-0"	1'-7"			—	—			0'-10 1/2"	Parapet	
C404	18	5'-9"	5	2'-7"	0'-7"	2'-7"					0'-0"			Parapet	
C415	614	3'-2"	5	1'-7"	1'-7"	0'-0"					0'-0"			Median	
C416	8	12'-0"	11	0'-0"	10'-0"	2'-0"			—	—			1'-1 1/4"	Curb	
C501	3967	5'-10"	1											Parapet	
C502	5	6'-5"	5	2'-6"	1'-5"	2'-6"					0'-0"			Parapet	
C503	987	7'-0 1/2"	5	2'-7"	1'-10 1/2"	2'-7"					0'-3 3/8"			Median	
C505	46	7'-6 1/2" to 7'-0 1/2"	5	2'-7"	varies	2'-7"					0'-3 3/8"			Median	4 sets of 7 and 3 sets of 6, B varies between each set 2'-4 1/2" to 1'-10 1/2" by 1" incr.
C506	3	4'-9"	5	2'-0"	2'-9"	0'-0"					1'-5 3/4"			Parapet	
C507	3	2'-2"	5	1'-7"	0'-7"	0'-0"					0'-5"			Parapet	
C512	4	4'-2"	17	2'-9"	1'-5"						0'-6 1/2"			Parapet	
C514	1	5'-10"	5	2'-0"	3'-10"	0'-0"					1'-5 3/4"			Parapet	
C515	1	3'-2"	5	2'-7"	0'-7"	0'-0"					0'-5"			Parapet	
C520	614	5'-5 1/8"	20											Median	
C522	4	2'-11"	5	1'-0"	0'-11"	1'-0"					0'-0"			Median	
C523	6	9'-8"	5	3'-0"	3'-8"	3'-0"					0'-0"			Median	
C525	6	6'-6"	5	1'-6"	3'-6"	1'-6"					0'-0"			Median	
C526	51	9'-0"	4	2'-8"	1'-8"	1'-6"								Parapet	
C527	8	12'-5"	5	2'-6"	7'-5"	2'-6"					0'-0"			Median	
C528	4	3'-10"	7	1'-4"	0'-3"	1'-0"					0'-8 1/2"			Median	
C536	24	13'-6"	11	0'-0"	10'-6"	3'-0"			—	—			1'-8"	Parapet	
S401	1413	4'-3"	6	1'-1"	0'-9"	1'-1"	0'-8"							Curb	
S403	18	3'-4"	28											Parapet	
S404	18	3'-2"	5	2'-2"	1'-0"	0'-0"					0'-0"			Parapet	
S405	364	4'-1"	9	1'-1"	1'-6"	1'-1"								Curb	
S407	40	9'-5"	29											Parapet	
S408	55	4'-4"	18	1'-0"	1'-2"	0'-6"								Slab transverse	
S501	4521	7'-0"	2											Parapet	
S502	81	8'-2"	8	2'-6"	1'-0"	2'-8"	1'-3"	0'-9"		0'-10"				Slab longitudinal	
S503	987	9'-4"	7	3'-2"	1'-3"	1'-10"					1'-1"			Median	
S504	187	7'-2"	8	2'-6"	1'-4"	1'-5"	1'-2"	0'-9"			0'-10"			Slab longitudinal	
S508	321	4'-8"	9	1'-10"	1'-5"	1'-0"								Slab longitudinal	
S512	46	9'-10" to 9'-4"	7	varies	1'-3"	1'-10"					1'-1"			Slab transverse	4 sets of 7 and 3 sets of 6, A varies between each set 3'-8" to 3'-2" by 1" incr.
S519	5	7'-11"	5	3'-3"	1'-5"	3'-3"					0'-0"			Slab transverse	
S523	71	7'-5"	8	2'-6"	1'-4"	1'-8"	1'-2"	0'-9"			0'-10"			Slab longitudinal	
S526	96	6'-2"	8	2'-6"	0'-10"	1'-2"	0'-11"	0'-9"			0'-8"			Slab longitudinal	
S529	40	35'-8"	26	0'-7"	34'-6"						0'-5"			Slab transverse	
S531	32	5'-3"	5	2'-0"	1'-3"	2'-0"					0'-0"			Slab longitudinal	
S532	32	3'-3"	5	1'-0"	1'-3"	1'-0"					0'-0"			Slab longitudinal	
S535	66	6'-6"	6	1'-10"	1'-2"	1'-10"	0'-10"							Abut. longitudinal	
S541	81	6'-6"	8	2'-6"	1'-0"	1'-2"	1'-0 3/4"	0'-9"			0'-9"			Slab longitudinal	
S544	533	32'-5"	26	0'-7"	31'-3"						0'-5"			Slab transverse	
S546	533	33'-6"	27	0'-7"	5'-0"	5'-3"	2'-9"			0'-5 1/2"	0'-5"	0'-7 3/4"		Slab transverse	
S547	24	28'-7" to 3'-8"	16	0'-7"	varies						0'-5"			Slab transverse	B varies between 28'-0" and 3'-1" by 1'-1" incr.
S549	99	4'-7"	5	2'-0"	0'-7"	2'-0"								Slab longitudinal	
S556	23	29'-11" to 3'-4"	16	0'-7"	varies						0'-5"			Slab transverse	B varies between 29'-4" and 2'-9" by 1'-2 1/2" incr.
S560	60	48'-4"	21	0'-7"	5'-8"	5'-4"	3'-10"	7'-5"		0'-6"	0'-6"	0'-8 1/2"		Slab transverse	
S561	60	46'-6"	16	0'-7"	45'-11"						0'-5"			Slab transverse	
S576	81	4'-0"	9	1'-2"	1'-5"	1'-0"								Slab longitudinal	

NOTES:

All dimensions are out to out
Bending details and hooks sha
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Mark (C502) bar size -
Mark (S603) bar size -

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NORTH APPROACH

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DEPARTMENT OF TRAN

PORTLAND - S. PORT
OVER FORE
CUMBERLAND

SUPERSTRUCTURE
BAR SCHEDULE

REINFORCING STEEL SCHEDULE

F.H.V.A. REG. NO.	STATE	PROJECT
1	MAINE	DPI-00

BENT BARS

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	REMARKS
S577	27	6'-4"	8	2'-6"	1'-0"	1'-0"	1'-0 3/4"	0'-9"			0'-9"			Slab longitudinal	
S578	60	8'-0"	22											Slab transverse	
S580	36	8'-0"	5	2'-6"	3'-0"	2'-6"					0'-0"			Median	
S581	16	6'-0"	5	3'-0"	3'-0"	0'-0"					0'-0"			Median	
S582	4	9'-2"	6	3'-0"	1'-2"	3'-0"	1'-0"							Median	
S583	4	10'-6"	6	3'-0"	1'-10"	3'-0"	1'-4"							Median	
S584	48	7'-10"	6	2'-1"	3'-4"	2'-1"	0'-2"							Parapet	
S585	24	5'-10"	6	1'-1"	3'-4"	1'-1"	0'-2"							Parapet	
S586	12	5'-6"	6	2'-1"	1'-0"	2'-1"	0'-2"							Curb	
S587	30	9'-0"	4	2'-8"	1'-8"	1'-6"								Parapet	
S588	9	3'-6"	6	1'-1"	1'-0"	1'-1"	0'-2"							Curb	
S609	210	41'-7"	10	3'-4"	28'-0"	9'-7"	0'-8"		0'-1 1/2"	——	0'-6"		1'-0 5/8"	Slab transverse	
S610	221	47'-9"	11	9'-3"	35'-2"	3'-4"			0'-1 3/4"	——			0'-1 1/2"	Slab transverse	
S611	147	41'-7"	10	3'-4"	28'-0"	9'-7"	0'-8"		0'-1 1/4"	——	0'-6"		0'-11 7/8"	Slab transverse	
S612	136	47'-9"	11	9'-3"	35'-2"	3'-4"			0'-1"	——			0'-1 1/4"	Slab transverse	
S613	133	41'-7"	10	3'-4"	28'-0"	9'-7"	0'-8"		0'-1"	——	0'-6"		0'-11"	Slab transverse	
S614	133	47'-9"	11	9'-3"	35'-2"	3'-4"			0'-0 1/4"	——			0'-1"	Slab transverse	
S617	105	45'-9"	12	0'-8"	8'-4"	7'-7"	7'-6"	5'-4"	0'-2 1/2"	0'-7"	0'-6"	0'-10"	0'-6 5/8"	Slab transverse	
S618	110	46'-0"	13	9'-3"	9'-3"	7'-7"	7'-6"	5'-4"		0'-7"		0'-10"	0'-1 3/4"	Slab transverse	
S619	73	45'-9"	12	0'-8"	8'-4"	7'-7"	7'-6"	5'-4"	0'-2 1/2"	0'-7"	0'-6"	0'-10"	0'-5 7/8"	Slab transverse	
S620	67	45'-9"	12	0'-8"	8'-4"	7'-7"	7'-6"	5'-4"	0'-1 1/2"	0'-7"	0'-6"	0'-10"	0'-5"	Slab transverse	
S622	68	46'-0"	13	9'-3"	9'-3"	7'-7"	7'-6"	5'-4"		0'-7"		0'-10"	0'-1"	Slab transverse	
S624	105	60'-0"	14	0'-8"	8'-4"	7'-7"	7'-6"	4'-0"	0'-1 1/2"	0'-7"	0'-6"	0'-10"	0'-6 5/8"	Slab transverse	
S625	110	31'-9"	15	9'-3"	9'-3"	2'-7"	7'-6"	6'-8"		0'-7"		0'-10"	0'-1 3/4"	Slab transverse	
S626	72	60'-0"	14	0'-8"	8'-4"	7'-7"	7'-6"	4'-0"	0'-1 1/4"	0'-7"	0'-6"	0'-10"	0'-5 7/8"	Slab transverse	
S627	67	46'-0"	13	9'-3"	9'-3"	7'-7"	7'-6"	5'-4"		0'-7"		0'-10"	0'-0 1/4"	Slab transverse	
S628	67	60'-0"	14	0'-8"	8'-4"	7'-7"	7'-6"	4'-0"	0'-1"	0'-7"	0'-6"	0'-10"	0'-5"	Slab transverse	
S629	67	31'-9"	15	9'-3"	9'-3"	7'-7"	7'-6"	6'-8"	0'-0"	0'-7"		0'-10"	0'-1"	Slab transverse	
S631	210	37'-7"	11	0'-0"	28'-0"	9'-7"			——	——			0'-6 5/8"	Slab transverse	
S634	221	51'-0"	32	9'-3"	35'-2"	3'-6"	3'-1"		0'-1 1/2"	——			0'-1 3/4"	Slab transverse	
S635	17	30'-1" to 30'-4 3/4"	16	0'-8"	varies				——	——	0'-6"			Slab transverse	3 sets of 4 and 1 set of 5, B varies between each set 29'-5" to 29'-8 3/4" by 1 1/4" incr.
S636	170	30'-4 3/4" to 33'-6 3/4"	10	0'-0"	varies	9'-7 1/2"	0'-8"		——	——	0'-6"		0'-7 1/4"	Slab transverse	10 sets of 8 and 10 sets of 9, B varies between each set 20'-1 1/4" to 23'-3 1/4" by 2" incr.
S637	191	33'-6 3/4" to 37'-1 1/2"	10	0'-0"	varies	9'-7 1/2"	0'-8"		——	——	0'-6"		0'-9 1/4"	Slab transverse	35 sets of 5 and 4 sets of 4, B varies between each set 23'-3 1/4" to 26'-10" by 1 1/8" incr.
S638	101	37'-1 1/2" to 39'-2 1/2"	10	0'-0"	varies	9'-7 1/2"	0'-8"		——	——	0'-6"		0'-10 3/8"	Slab transverse	23 sets of 4 and 3 sets of 3, B varies between each set 26'-10" to 28'-11" by 1" incr.
S639	81	39'-2 1/2" to 41'-3 1/2"	10	0'-0"	varies	9'-7 1/2"	0'-8"		——	——	0'-5"		0'-11"	Slab transverse	23 sets of 3 and 3 sets of 4, B varies between each set 28'-11" to 31'-0" by 1" incr.
S640	182	41'-3 1/2"	10	0'-0"	40'-0"	9'-7 1/2"	0'-8"		——	——	0'-6"		1'-0"	Slab transverse	
S641	201	41'-3 1/2"	10	0'-0"	40'-0"	9'-7 1/2"	0'-8"		——	——	0'-6"		1'-0 5/8"	Slab transverse	
S642	584	41'-3 1/2"	10	19'-0"	12'-0"	9'-7 1/2"	0'-8"		——	varies	0'-6"		varies	Slab transverse	4 sets of 116 and 1 set of 120, R varies between each set 1'-0 1/2" to 8 1/2" by 1" incr. and G varies between each set 0'-0" to 0'-8 1/2" by 2 1/8" incr.
S643	28	23'-0"	11	0'-0"	19'-0"	4'-0"			——	——			0'-1 3/4"	Slab transverse	
S644	42	25'-6"	11	0'-0"	19'-0"	6'-6"			——	——			0'-2 7/8"	Slab transverse	
S645	42	29'-0"	11	0'-0"	19'-0"	10'-0"			——	——			0'-4 1/2"	Slab transverse	
S646	41	32'-6"	11	0'-0"	19'-0"	13'-6"			——	——			0'-7 1/2"	Slab transverse	
S647	19	29'-3 1/2"	10	0'-0"	19'-0"	9'-7 1/2"	0'-8"		——	——	0'-6"		0'-11 1/2"	Slab transverse	
S650	67	31'-9"	15	9'-3"	9'-3"	7'-7"	7'-6"	6'-8"	0'-0"	0'-7"		0'-10"	0'-0 1/4"	Slab transverse	
S651	133	37'-7"	11	0'-0"	28'-0"	9'-7"			——	——			0'-5"	Slab transverse	
S652	133	51'-0"	32	9'-3"	35'-2"	3'-6"	3'-1"		0'-1"				0'-0 1/4"	Slab transverse	
S659	170	38'-8 3/4" to 41'-10 3/4"	11	0'-0"	varies	9'-7 1/2"			——	——			0'-1 1/4"	Slab transverse	10 sets of 8 and 10 sets of 9, B varies between each set 29'-1 1/4" to 32'-3 1/4" by 2" incr.
S660	191	41'-10 3/4" to 45'-5 1/2"	11	0'-0"	varies	9'-7 1/2"			——	——			0'-3 1/4"	Slab transverse	35 sets of 5 and 4 sets of 4, B varies between each set 32'-3 1/4" to 35'-10" by 1 1/8" incr.

NOTES:

ALL dimensions are out to out.
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First digit following the letter mark indicates size of reinf.

Mark (C502) bar size -
Mark (S603) bar size -

Each truss bar, types 12, 13, and 27, may be replaced by two bars (one top and one bottom) bar size as the truss bar. Provisions shall be based on truss bars scheduled on plans.

ALL dimensions in parentheses are dimensions in a negative direction.

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE
CUMBERLAND

SUPERSTRUT
BAR SCHEDULE

F.H.W.A. REG. NO.	STATE	PROJEC
1	MAINE	DP1-C

MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	REMARKS
S661	101	45'-1 1/2" to 47'-6 1/2"	11	0'-0"	varies	9'-7 1/2"			—	—			0'-4 3/8"	Slab transverse	23 sets of 4 and 3 sets of 3, B varies between each set 35'-10" to 37'-11" by 1" incr.
S662	81	47'-6 1/2" to 49'-7 1/2"	11	0'-0"	varies	9'-7 1/2"			—	—			0'-5"	Slab transverse	23 sets of 3 and 3 sets of 4, B varies between each set 37'-11" to 40'-0" by 1" incr.
S663	182	49'-7 1/2"	11	0'-0"	40'-0"	9'-7 1/2"			—	—			0'-6"	Slab transverse	
S664	201	49'-7 1/2"	11	0'-0"	40'-0"	9'-7 1/2"			—	—			0'-6 5/8"	Slab transverse	
S665	584	49'-7 1/2"	11	28'-0"	12'-0"	9'-7 1/2"			—	varies			varies	Slab transverse	4 sets of 116 and 1 set of 120, R varies between each set 1'-0 1/2" to 8 1/2" by 1" incr. and 6 varies between each set 0'-0" to 1'-0" by 3" incr.
S666	28	32'-0"	11	0'-0"	28'-0"	4'-0"			—	—			0'-1 3/4"	Slab transverse	
S667	42	34'-6"	11	0'-0"	28'-0"	6'-6"			—	—			0'-2 7/8"	Slab transverse	
S668	42	38'-0"	11	0'-0"	28'-0"	10'-0"			—	—			0'-4 1/2"	Slab transverse	
S669	41	41'-6"	11	0'-0"	28'-0"	13'-6"			—	—			0'-7 1/2"	Slab transverse	
S670	19	37'-7 1/2"	11	0'-0"	28'-0"	9'-7 1/2"			—	—			0'-5 1/2"	Slab transverse	
S671	28	22'-6 1/2"	10	0'-0"	12'-3"	9'-7 1/2"	0'-8"		—	—	0'-6"		0'-8 3/8"	Slab transverse	
S672	42	23'-3 1/2" to 23'-8"	10	0'-0"	13'-0"	varies	0'-8"		—	—	0'-6"		0'-8 1/4"	Slab transverse	4 sets of 8 and 1 set of 10, C varies between each set 9'-7 1/2" to 10'-0" by 1 1/8" incr.
S673	42	26'-2"	10	0'-0"	15'-6"	10'-0"	0'-8"		—	—	0'-6"		0'-8 1/4"	Slab transverse	
S674	32	25'-6" to 15'-6"	11	0'-0"	15'-6"	varies			—	—			0'-2"	Slab transverse	2 sets of 16, C varies 10'-0" to 0'-0" by 8" incr.
S678	4	34'-10 3/8"	10	0'-0"	23'-7 1/8"	10'-7 1/4"	0'-8"		—	—	0'-6"		0'-7"	Slab transverse	
S680	108	5'-1"	16	0'-7"	4'-6"									Slab transverse	
S682	28	22'-6 1/2"	11	0'-0"	12'-3"	9'-7 1/2"			—	—			0'-2 3/8"	Slab transverse	
S683	42	23'-3 1/2" to 23'-8"	11	0'-0"	13'-0"	varies			—	—			0'-2 1/4"	Slab transverse	4 sets of 8 and 1 set of 10, C varies between each set 9'-7 1/2" to 10'-0" by 1 1/8" incr.
S684	42	26'-2"	11	0'-0"	15'-6"	10'-0"			—	—			0'-2 1/4"	Slab transverse	
S688	4	34'-2 3/8"	11	0'-0"	23'-7 1/8"	10'-7 1/4"			—	—			0'-1"	Slab transverse	
S690	17	22'-0"	11	12'-6"	6'-0"	3'-6"			—	0'-1 1/2"			0'-0 1/2"	Slab transverse	
S691	170	22'-0"	11	12'-6"	6'-0"	3'-6"			—	0'-0 3/4"			0'-0 1/2"	Slab transverse	
S692	191	22'-0"	11	12'-6"	6'-0"	3'-6"			varies	—			0'-0 1/2"	Slab transverse	2 sets of 63 and 1 set of 65, F varies between each set 0" to 2" by 1" inch.
S693	101	22'-0" to 21'-9"	11	12'-6"	varies	3'-6"			0'-2 1/2"	—			0'-0 1/2"	Slab transverse	3 sets of 25 and 1 set of 26, B varies between each set 6'-0" to 5'-9" by 1" incr.
S694	142	21'-9" to 20'-6"	11	12'-6"	varies	3'-6"			0'-3 5/8"	—			0'-0 3/4"	Slab transverse	15 sets of 9 and 1 set of 7, B varies between each set 5'-9" to 4'-6" by 1" incr.
S695	121	20'-6" to 19'-6"	11	12'-6"	varies	3'-6"			0'-5"	—			0'-1 1/4"	Slab transverse	11 sets of 11, B varies between each set 4'-6" to 3'-6" by 1" incr.
S696	957	19'-6"	11	12'-6"	3'-6"	3'-6"			0'-5 1/2"	—			0'-1 1/2"	Slab transverse	
S697	17	20'-0"	11	3'-6"	6'-0"	10'-6"			—	0'-0 1/2"			0'-1 1/4"	Slab transverse	
S698	170	20'-0"	11	3'-6"	6'-0"	10'-6"			—	0'-0 1/2"			0'-1 1/4"	Slab transverse	
S699	191	20'-0"	11	3'-6"	6'-										

ALL dimensions in parentheses
dimensions in a negative direc

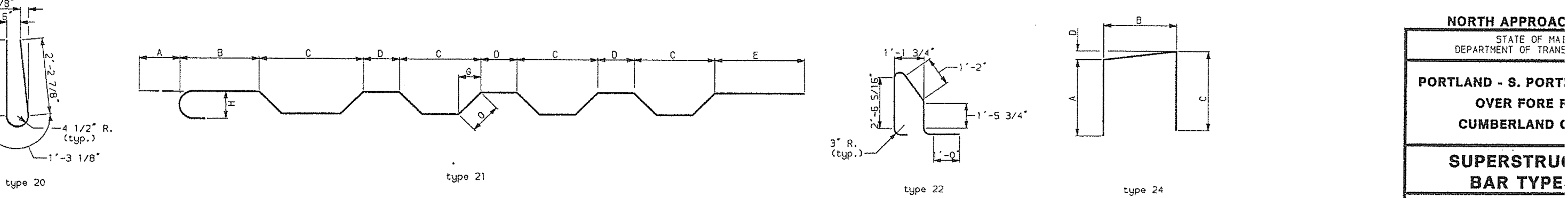
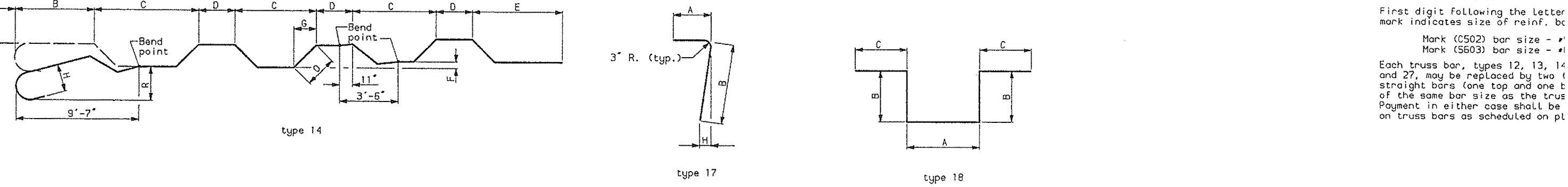
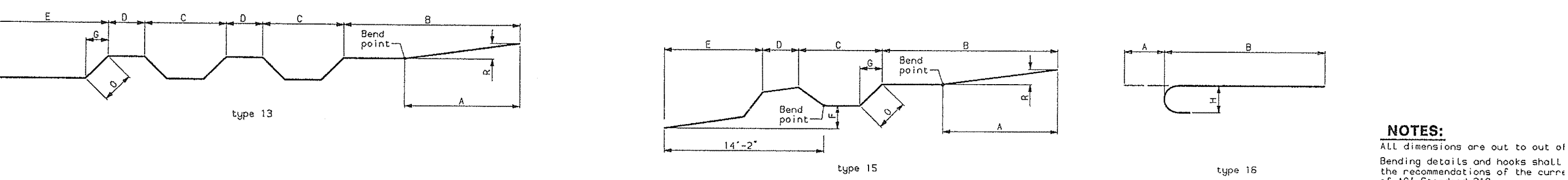
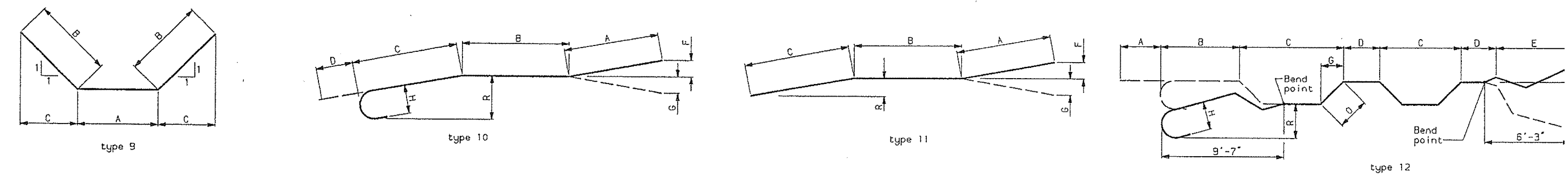
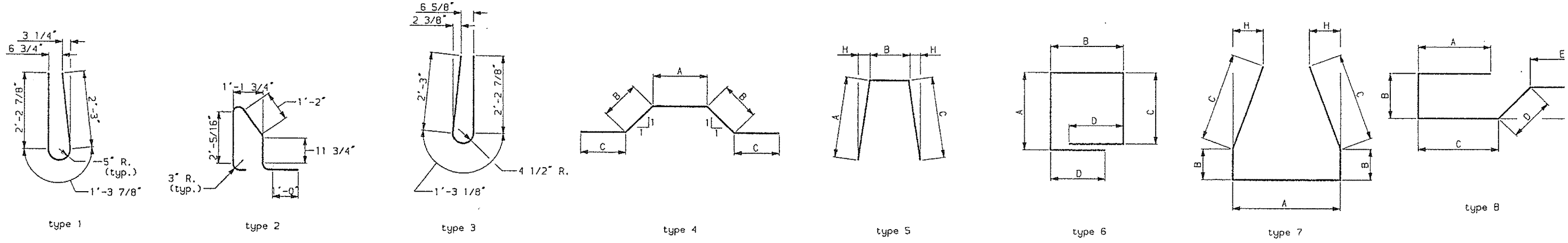
STATE OF MAI
DEPARTMENT OF TRANS

PORTLAND - S. PORTI
OVER FORE R
CUMBERLAND C

**SUPERSTRUK
BAR SCHEDU**

PLANS	DESIGN-DETAILED	DTP	DTP	6-94
	CHECKED		HCB	6-94
	REVISION			
	FIELD CHANGES			

BAR TYPE BENDING DIAGRAMS

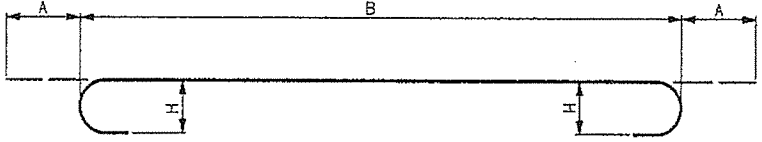


NOTES:
 ALL dimensions are out to out of
 Bending details and hooks shall
 the recommendations of the currs
 of ACI Standard 318.
 First digit following the letter
 mark indicates size of reinf. bc
 Mark (C502) bar size - #
 Mark (S603) bar size - #
 Each truss bar, types 12, 13, 14
 and 27, may be replaced by two
 straight bars (one top and one b
 of the same bar size as the trus
 Payment in either case shall be
 on truss bars as scheduled on pl

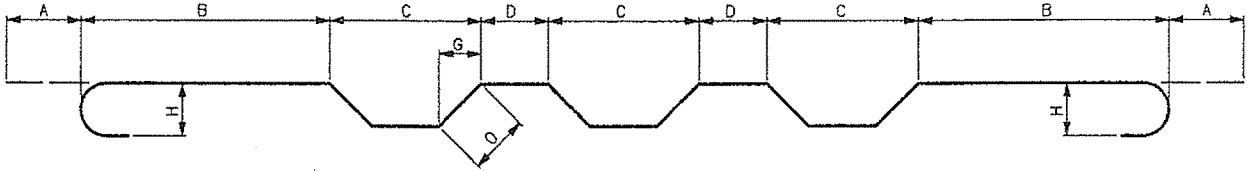
NORTH APPROAC
 STATE OF MAI
 DEPARTMENT OF TRAN
PORTLAND - S. PORT
OVER FORE F
CUMBERLAND C
SUPERSTRUC
BAR TYPE

no. bar. types. 1
 PLANS
 DESIGN-DETAILED
 CHECKED
 REVISION
 FIELD CHANGES
 DATE
 6-94
 6-94
 BY
 DTP
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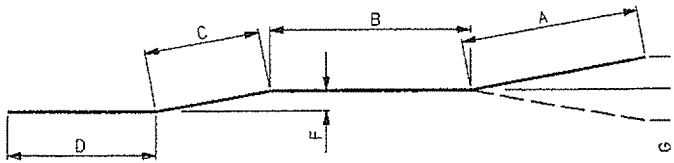
BAR TYPE BENDING DIAGRAMS



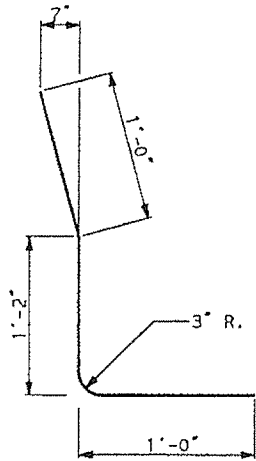
type 26



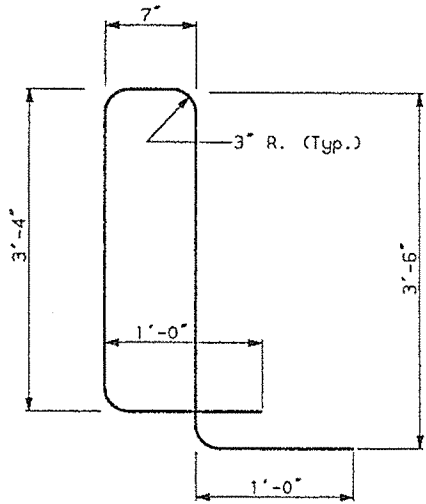
type 27



type 32



type 28



type 29

NOTES:

ALL dimensions are out to out o
Bending details and hooks shall
the recommendations of the curr
of ACI Standard 318.

First digit following the letter
mark indicates size of reinf. b

Mark (C502) bar size - #

Mark (S603) bar size - #

Each truss bar, types 12, 13, 1
and 27, may be replaced by two
straight bars (one top and one l
of the same bar size as the tru
Payment in either case shall be
on truss bars as scheduled on p

NORTH APPROAC

STATE OF MA
DEPARTMENT OF TRAN

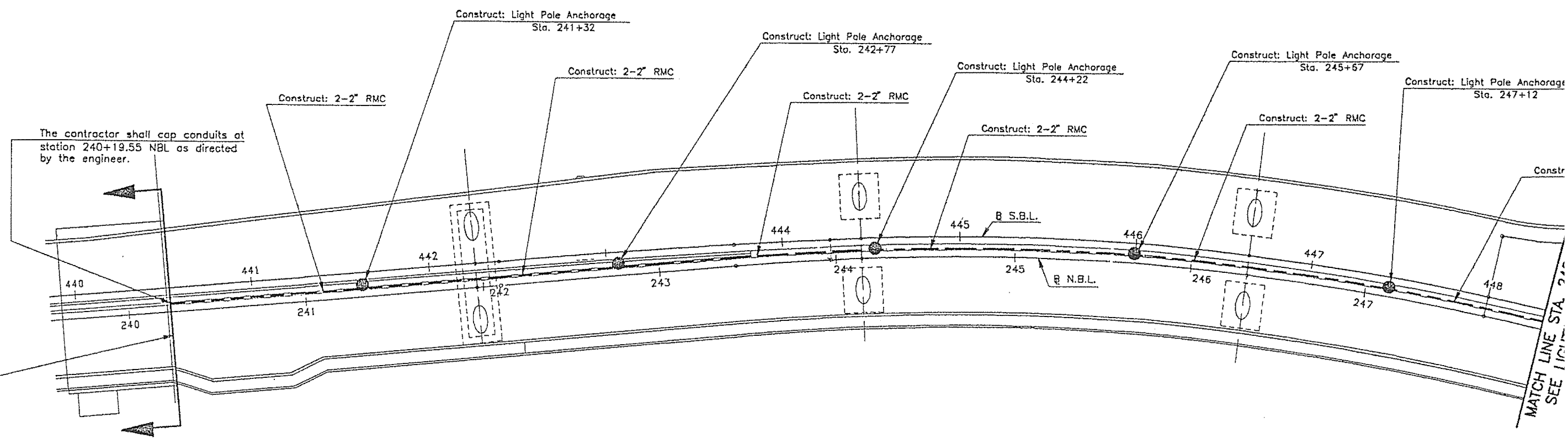
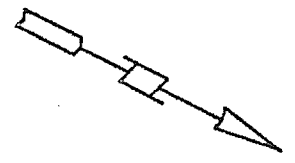
PORTLAND - S. PORT
OVER FORE
CUMBERLAND

SUPERSTRU
BAR TYPE

SHEET 135 OF 156 AUGUSTA,

DESIGN	CHECKED	REVISION	FIELD CHANGES
DESIGN-DETAILED	CHECKED	REVISION	FIELD CHANGES
DIP	HEB		
DIP	HEB		
DATE	DATE	DATE	DATE
6-94	6-94	6-94	6-94

PLANS



See Bascule Superstructure Plans
 Contract DPI-0068(005)
 (Approach Superstructure and Bascule Superstructure
 Contractors must coordinate details)

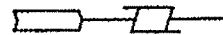
- General Notes:
1. For light pole anchorage details, see SLAB DETAILS
 2. For conduit placement details, see SLAB DETAILS
 2. For junction box details, see NOSE GEOMETRY.

PROJECT DESIGN ENGINEER CHECKED REVISIONS FIELD CHANGES	DATE
	BY
	RAP
	PLANS

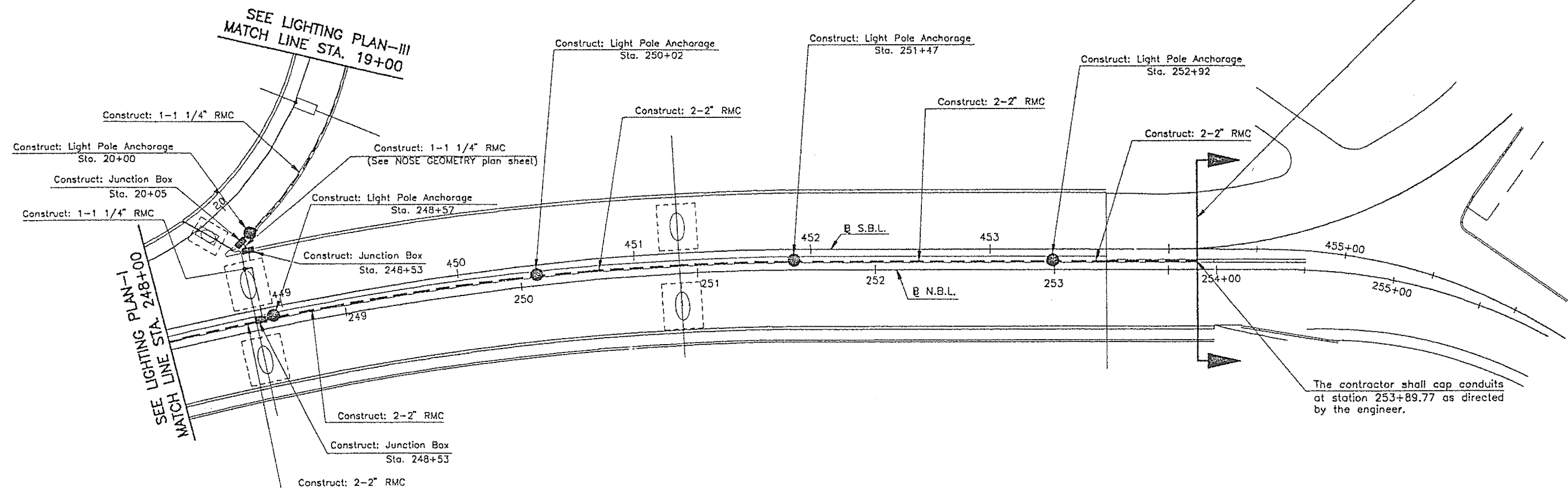
DATE: 8-20-94
 A&A 1089/FST32.DWG

NORTH APPROACH

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND -- S. PORTLAND OVER FORE RIVER CUMBERLAND CREEK
LIGHTING PLAN
SHEET 136 OF 156 AUGUSTA, ME



See Substructure Plans
Contract DPI-0068(006)
(Approach Roadway and Approach Superstructure
Contractors must coordinate details)

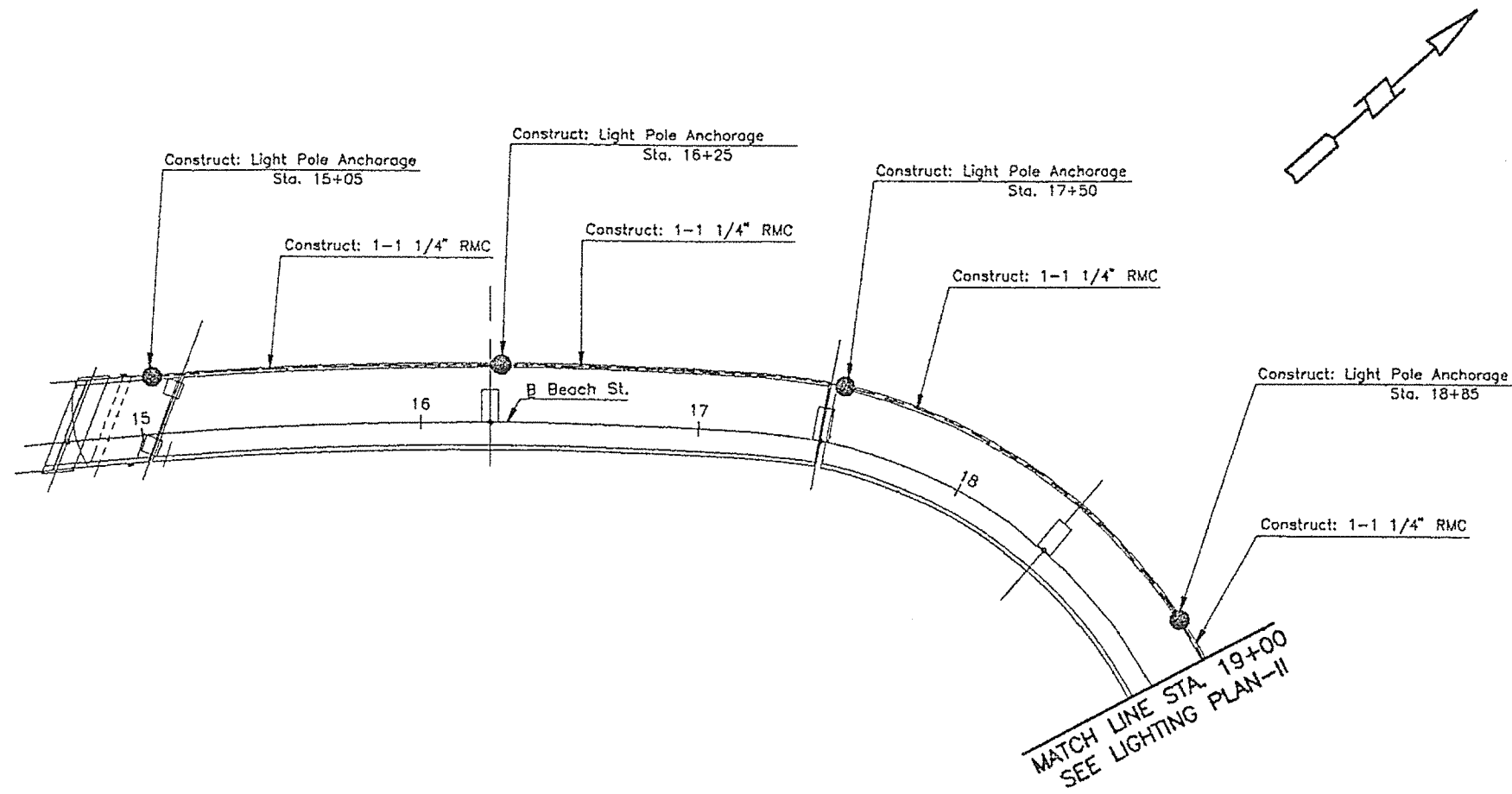


PROJECT	DESIGN ENGINEER	BY	DATE
PLANS	DESIGN-DETAILED	RAP	
	CHECKED		
	REVISIONS		
	FIELD CHANGES		

ATE: 5-25-94
LA 1089/FST33.DWG

NORTH APPROACH

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND OVER FORE RIVER CUMBERLAND COUNTY
LIGHTING PLAN
SHEET 137 OF 156 AUGUSTA, ME

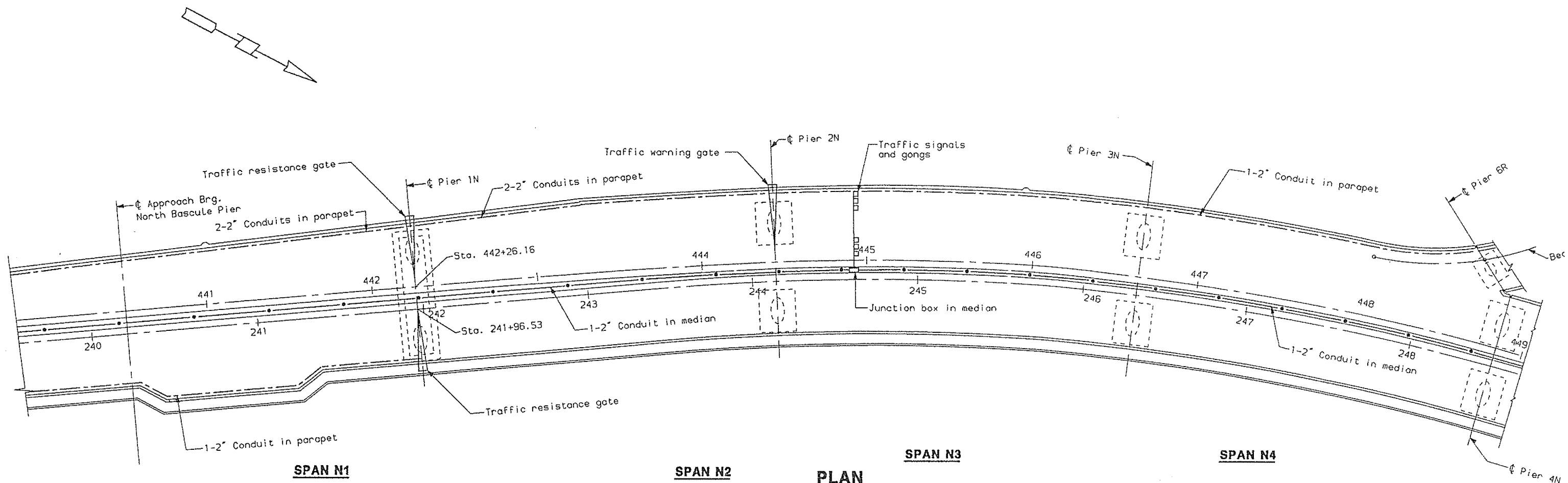


PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	PAP	
CHECKED		
REVISIONS		
FIELD CHANGES		

DATE: 6-20-94
A&A 1009/FT34.DWG

NORTH APPROACH

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
PORTLAND - S. PORTLAND OVER FORE RIVER CUMBERLAND COUNTY
LIGHTING PLAN
SHEET 138 OF 156 AUGUSTA, ME



LEGEND

- 2\" Conduit in parapet
- 2\" Conduit in median

NORTH APPROACH

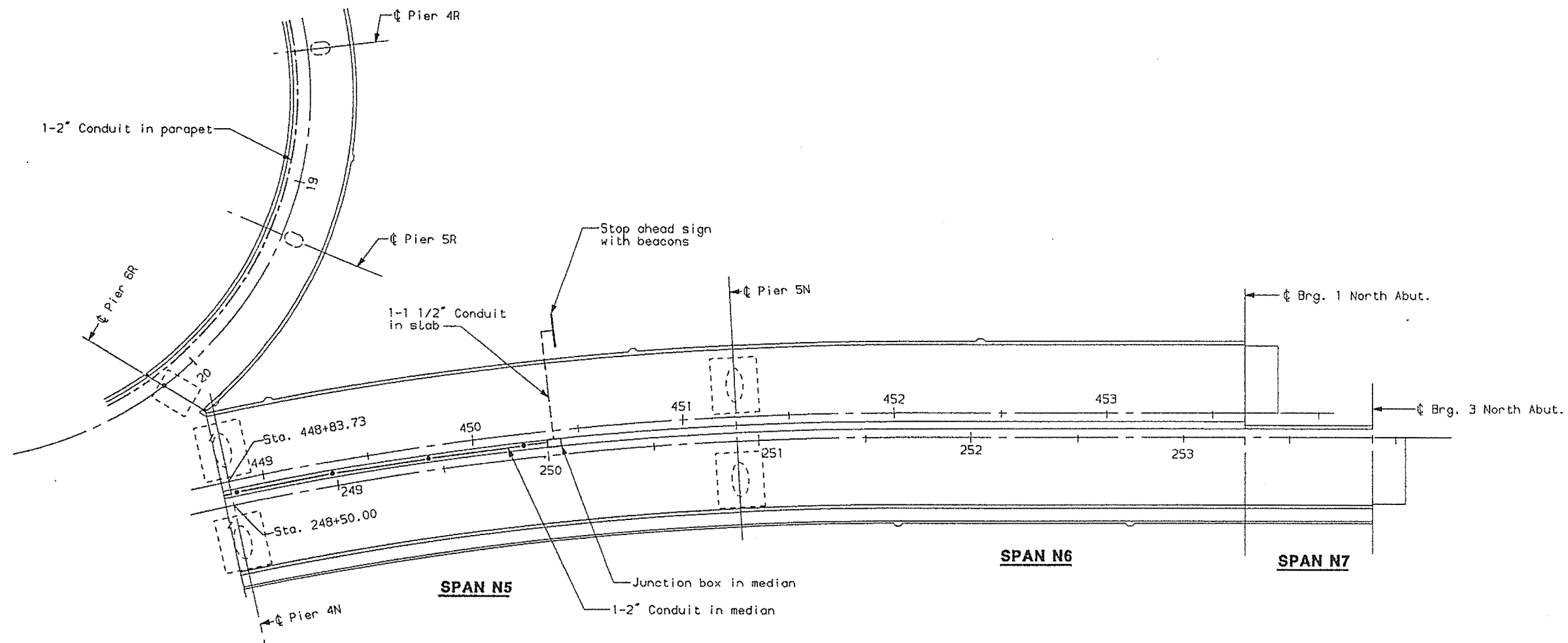
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY**

**CONDUIT LAYOUT
GATES AND SIGNALS**

SHEET 139 OF 156 AUGUSTA, ME

DESIGNED	CHECKED	REVISION	FIELD CHANGES
6-94	6-94		
PDB			



PLAN

NORTH APPROACH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORE RIVER
CUMBERLAND COUNTY**

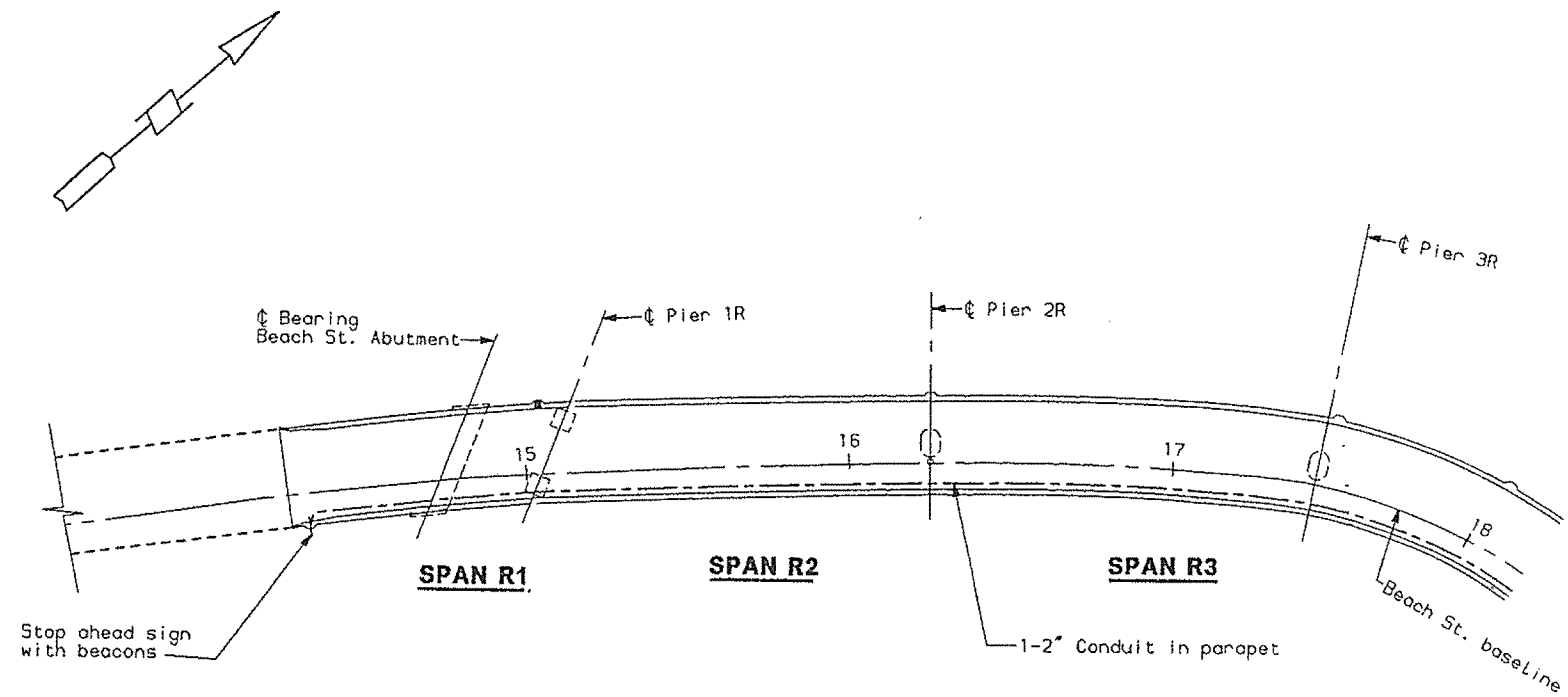
**CONDUIT LAYOUT
GATES AND SIGNS**

SHEET 140 OF 156 AUGUSTA, MAINE

DESIGN-Detailed	CHECKED	REVISION	FIELD CHANGES
6-94	6-94		
PLANS			

4-18-94

gab. 4



PLAN

NORTH APPROAC

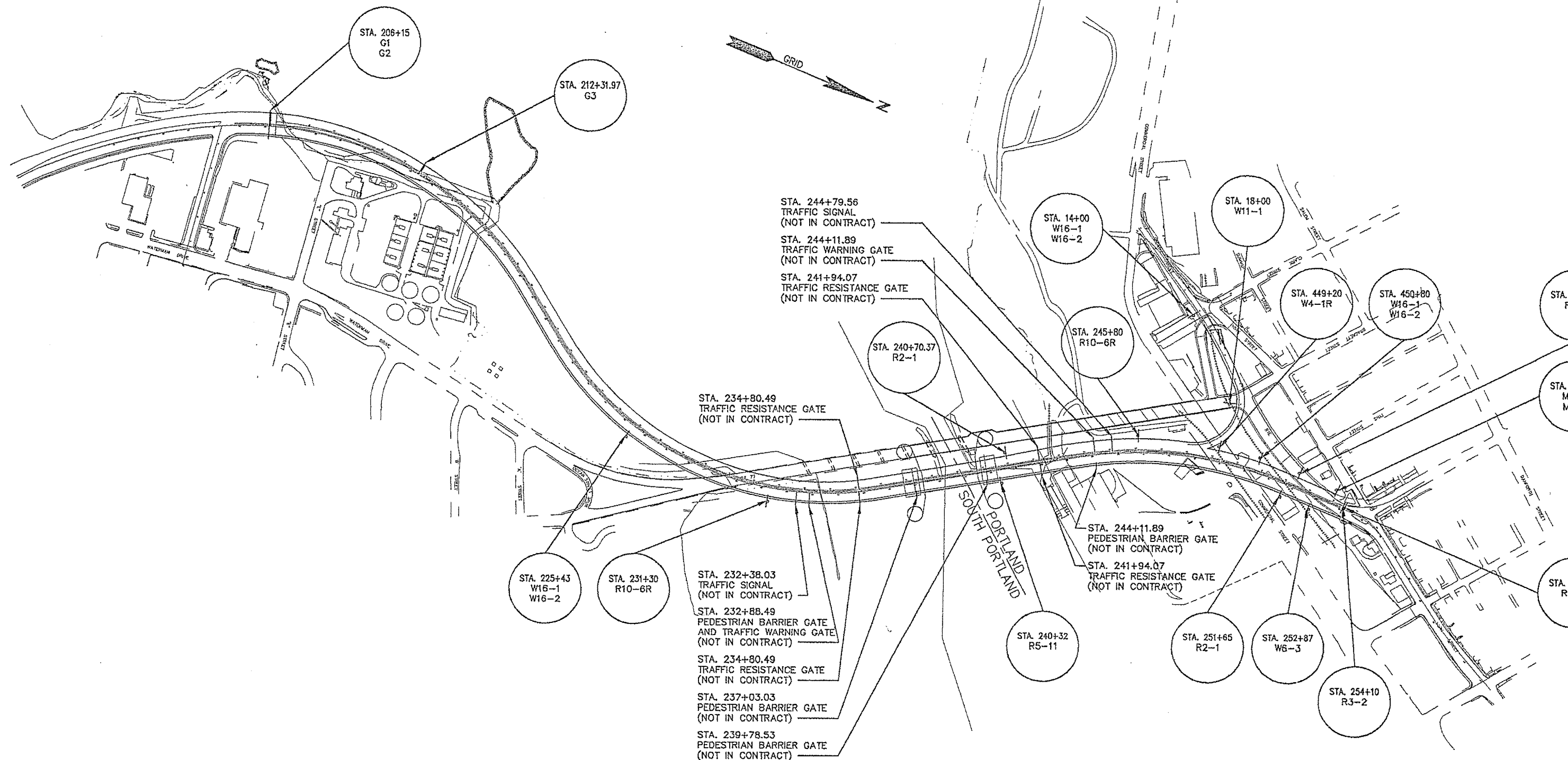
STATE OF MAI
DEPARTMENT OF TRANS

PORTLAND - S. PORTI
OVER FORE R
CUMBERLAND C

CONDUIT LA
GATES AND SIG

SHEET 141 OF 156 AUGUSTA, 1

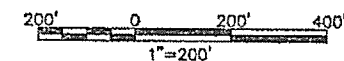
PLANS		DATE	BY	CHKD	APP'D
DE		6-5	6-5	6-5	6-5
CHECKED		6-5	6-5	6-5	6-5
REVISION		6-5	6-5	6-5	6-5
FIELD CHANGES		6-5	6-5	6-5	6-5



PROJECT DESIGN ENGINEER	JHA	DATE	1/94
DESIGN-DETAILED	SUB	BY	RHH
CHECKED	JHA		3/94
REVISIONS			
FIELD CHANGES			

FILE NAME: G:\V0037-10\PORTS\PL
 BY: JHA, DATE: 1994-08-22
 STEEL ALTERNATIVE

NOTE:
 THE STATION LOCATIONS SHOWN FOR ALL BRIDGE
 MOUNTED REGULATORY AND WARNING SIGNS ARE
 APPROXIMATE. ALL SIGN POSTS SHALL BE INSTALLED
 DIRECTLY OPPOSITE A FENCE POST AS SHOWN ON
 THE SLAB DETAILS - IV SHEET.



STEEL ALTERNATIVE
 NORTH SUPERSTRUCTURE

STATE OF MAINE
 DEPARTMENT OF TRANS

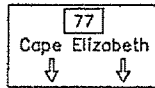
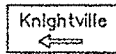














PORTLAND - S. PORT


OVER FORE

CUMBERLAND C

TRAFFIC SIGN LAY

TRAFFIC SIGN SUMMARY

ITEM NO.	I.D. NO.	SIGN SIZE		TEXT	TEXT DIMENSIONS						SIGN AREA IN SQ.FT.	NO. OF SIGNS REQD.	POST	COLOR	
		HEIGHT	WIDTH		LETTER HEIGHT				ROUTE MARKER OR SHIELD	ARROW				BACK-GROUND	LEGEND AND BORDER
					U.C.	L.C.	C.L.	N.							
645.12	G1	8'-6"	15'-6"		16"	12"			24"x24"	(2) 13"x24" @ 270°	131.75	1		GREEN	WHITE
645.12	G2	5'-0"	11'-6"		16"	12"				13"x48" @ 180°	57.50	1		GREEN	WHITE
645.12	G3	5'-0"	11'-6"		16" 12"	12"					57.50	1		GREEN	WHITE
645.271	W16-1	36"	36"		6" 6"						27.00	3		YELLOW	BLACK
645.271	W16-2	30"	24"		4" 4" 4" 4"						15.00	3		YELLOW	BLACK
645.271	R10-6R	36"	24"			FOR DETAILED DRAWINGS SEE STANDARD HIGHWAY SIGNS BOOKLET 1988					6.00	1		WHITE	BLACK
645.271	R10-6L	36"	24"								6.00	1		WHITE	BLACK
645.271	R5-11	24"	30"		4" 4" 4"						5.00	1		WHITE	BLACK
645.271	R2-1	30"	24"								10.00	2		WHITE	BLACK
645.271	W4-1R	30"	30"			FOR DETAILED DRAWINGS SEE STANDARD HIGHWAY SIGNS BOOKLET 1988					6.25	1	W6x9	YELLOW	BLACK
645.271	R2-1	48"	36"								12.00	1		WHITE	BLACK
645.271	W6-3	36"	36"								9.00	1		YELLOW	BLACK
645.271	M3-3	12"	24"								2.00	1		WHITE	BLACK
645.271	M1-5	24"	24"								4.00	1		WHITE	BLACK
645.271	R3-2	24"	24"								4.00	1		WHITE	RED & BLACK
645.271	R4-7	30"	24"							5.00	1		WHITE	BLACK	

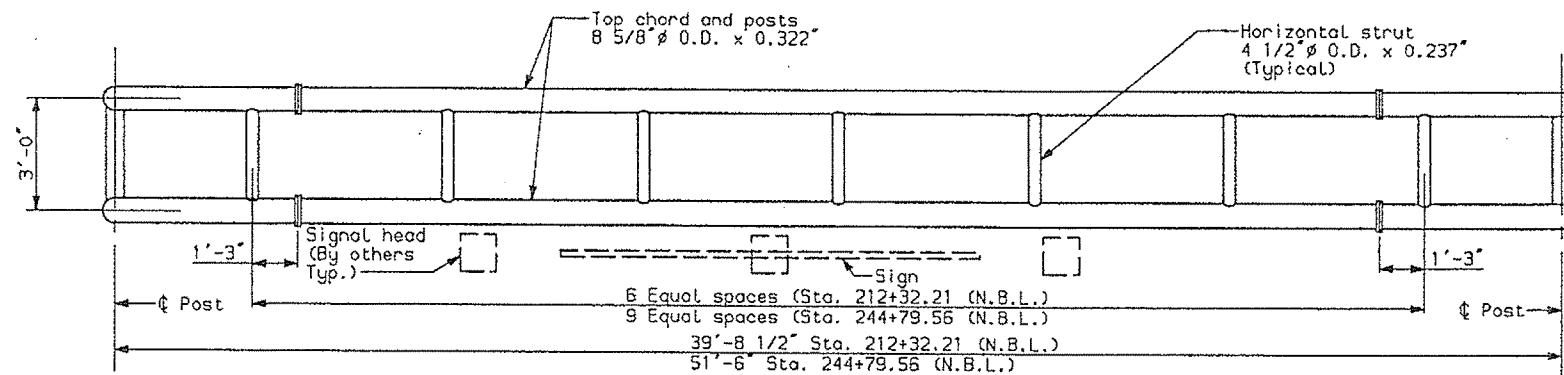
ITEM NO.	I.D. NO.	SIGN SIZE		TEXT	TEXT DIMENSIONS						SIGN AREA IN SQ.FT.	NO. OF SIGNS REQD.	POST	B. GR.
		HEIGHT	WIDTH		LETTER HEIGHT				ROUTE MARKER OR SHIELD	ARROW				
					U.C.	L.C.	C.L.	N.						
645.271	W11-1	30"	30"								6.25	1	W6X9	YE

NOTES:

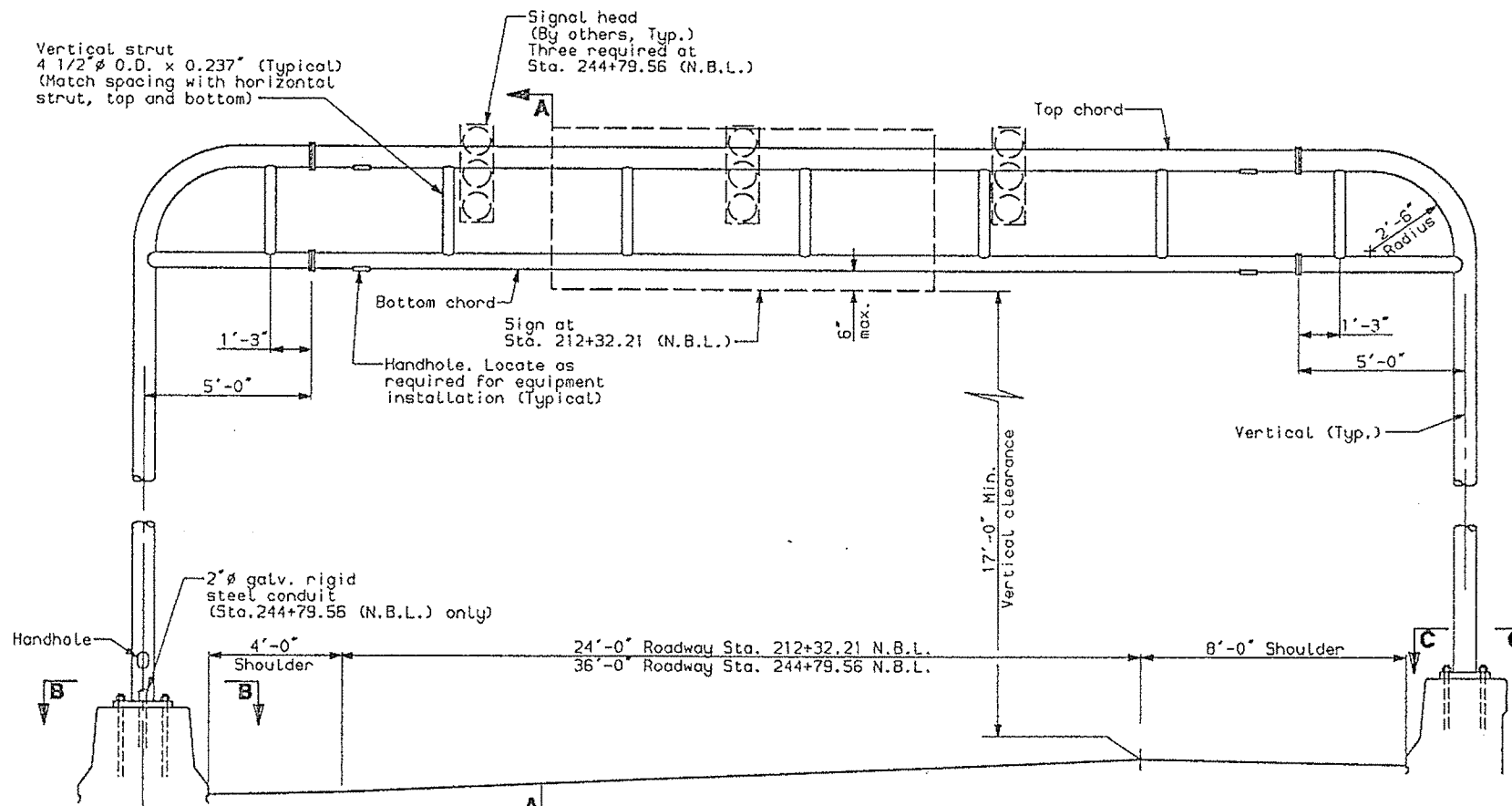
1. SIGNS SHALL CONFORM TO MUTCD
2. THE LEGEND, BORDER AND BACKGROUND SHALL BE HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING
3. SEE SLAB DETAILS - IV SHEET FOR POST AND SIGN INSTALLATION DETAILS
4. SIGNS R5-11, W16-1, AND W16-2 SHALL USE LETTER SERIES C
5. EACH SIGN ASSEMBLY OF W16-1 AND W16-2 SIGNS SHALL BE PROVIDED WITH TWO (2) FLASHING BEACONS.

LEGEND:

- U.C. - UPPER CASE LETTERS
L.C. - LOWER CASE LETTERS
C.L. - CAPITAL LETTERS
N - NUMERALS

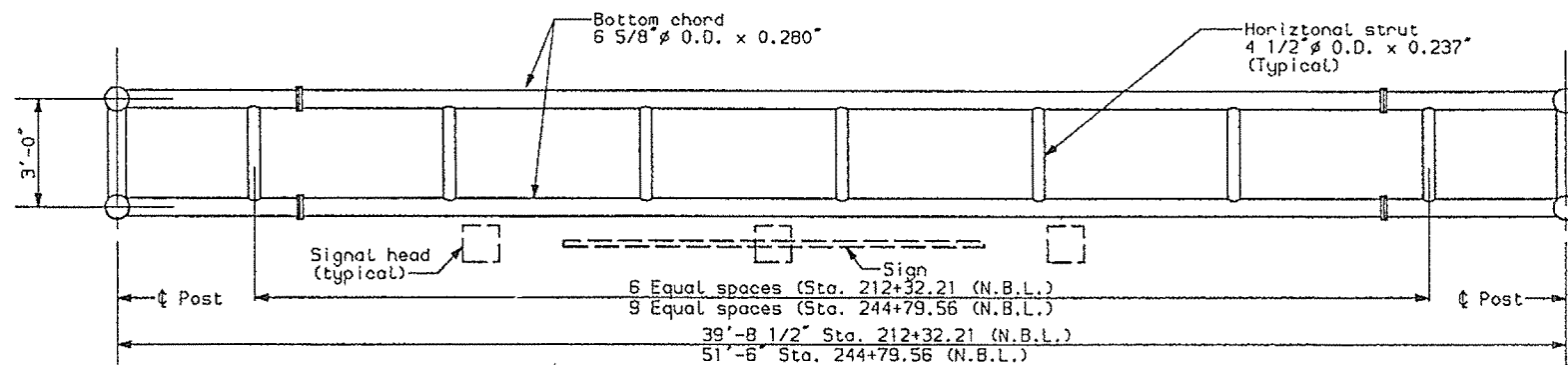


PLAN - TOP CHORD

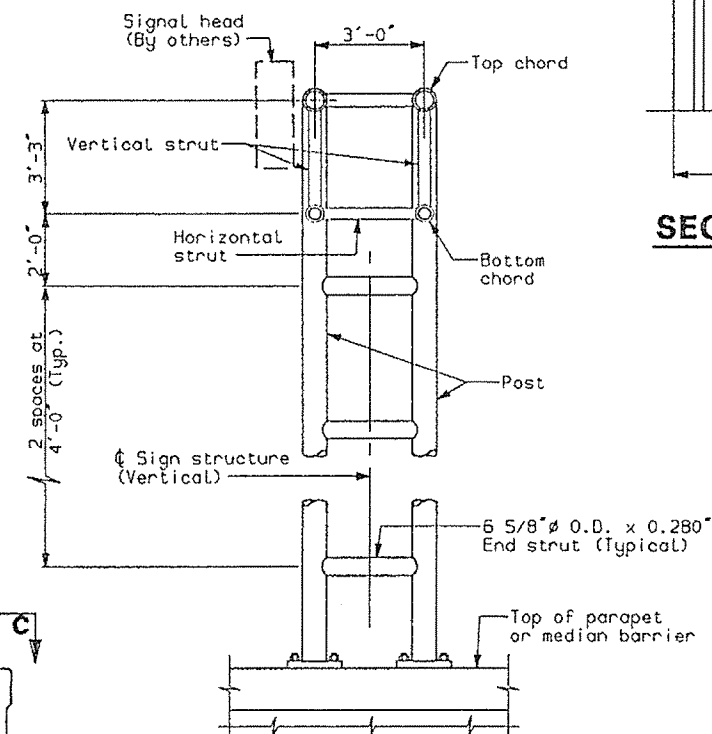


ELEVATION - SIGN/SIGNAL SUPPORT STRUCTURE

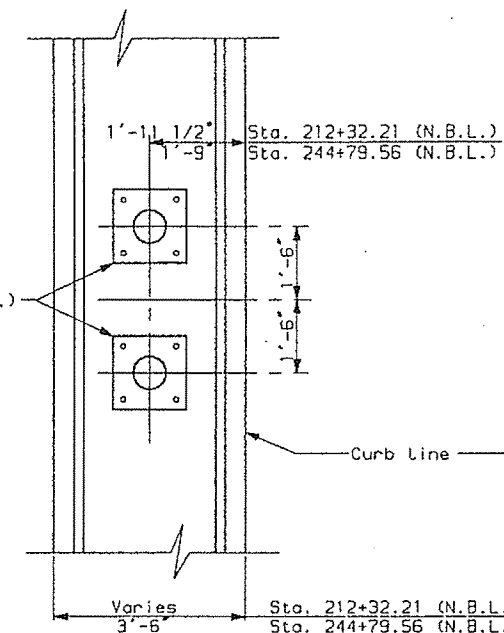
Sta. 212+32.21 (N.B.L.) Southbound roadway shown, Sta. 244+79.56 (N.B.L.) Southbound roadway similar (Looking back station)



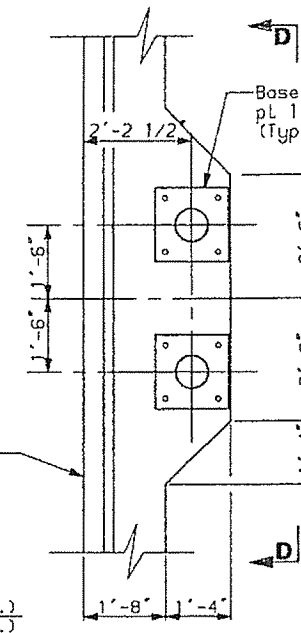
PLAN - BOTTOM CHORD



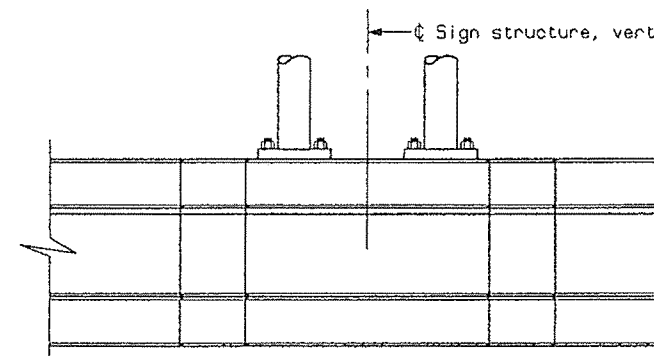
SECTION A-A



SECTION B-B



SECTION C-C



VIEW D-D

NOTES:

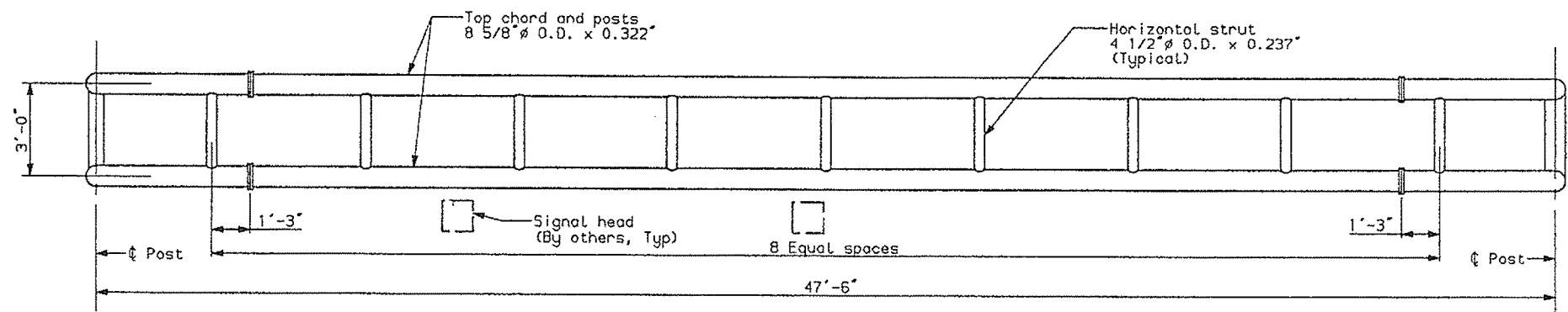
Fabricate and erect sign/signal support structure after placement of bituminous wearing surface. Bush surface of concrete to provide a level surface beneath sign/signal support base plate. Provide 2 - 1/8" thick neoprene pads for each base plate. Pad shall be 1/2" larger, all around than plan size of base plate.

NORTH APPROACH

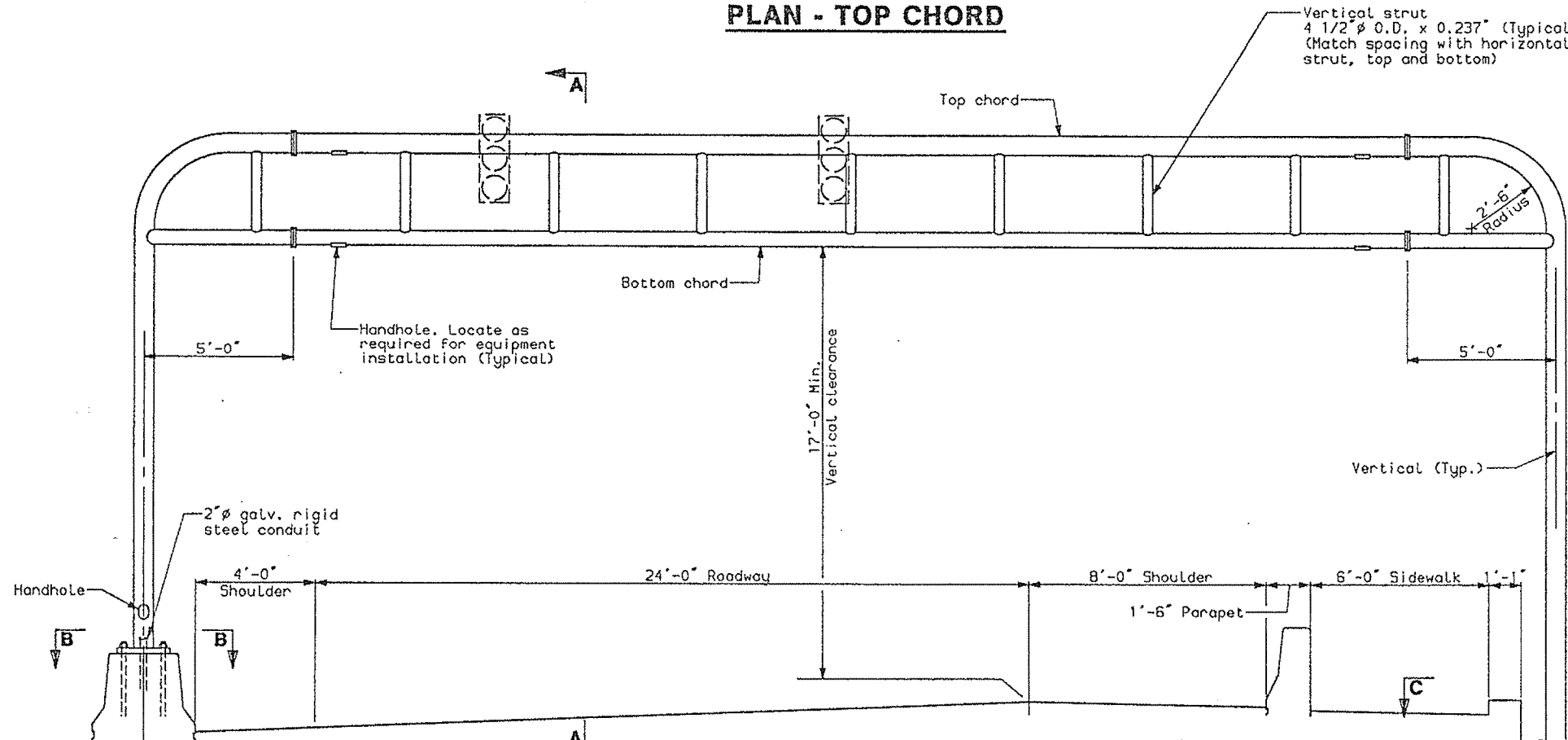
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORT
OVER FORE R
CUMBERLAND C

SIGN SUPP
DETAILS

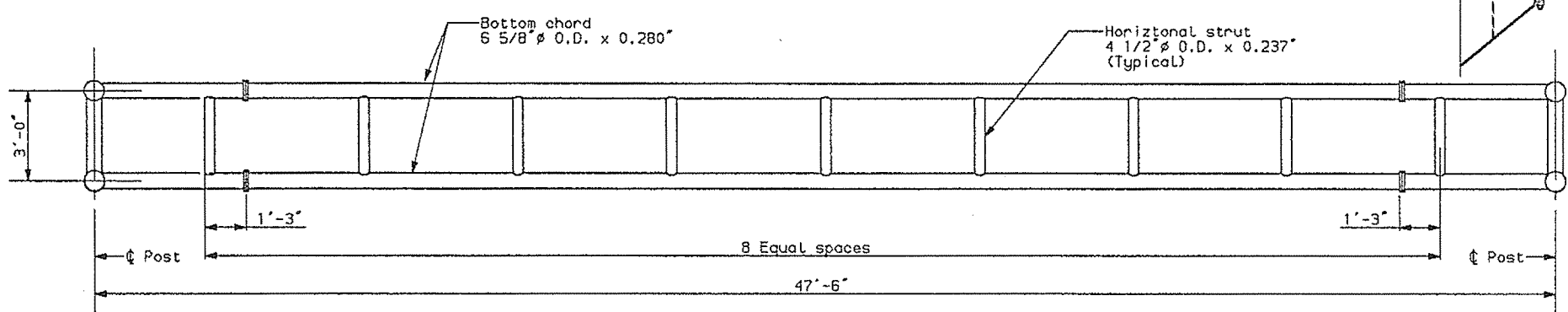


PLAN - TOP CHORD

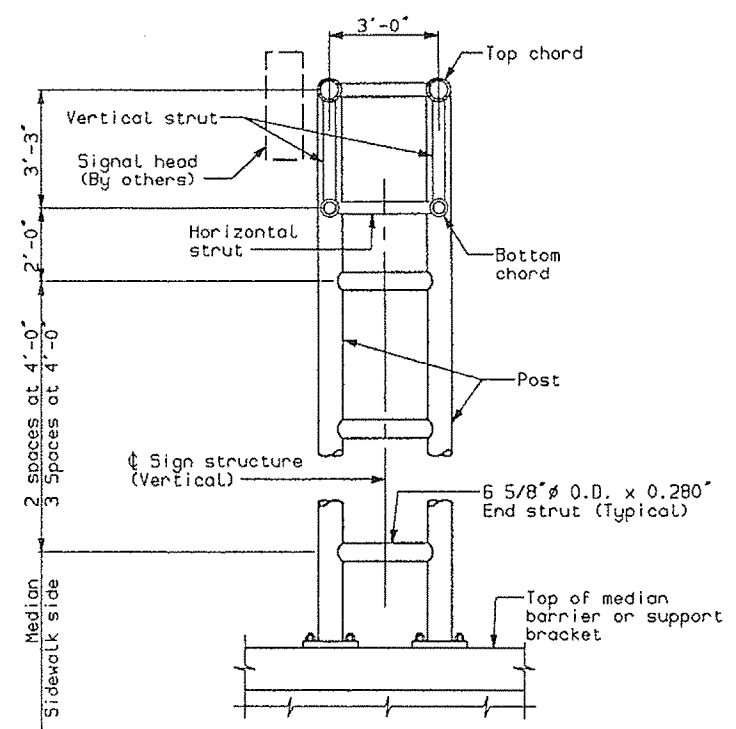


ELEVATION - SIGN/SIGNAL SUPPORT STRUCTURE

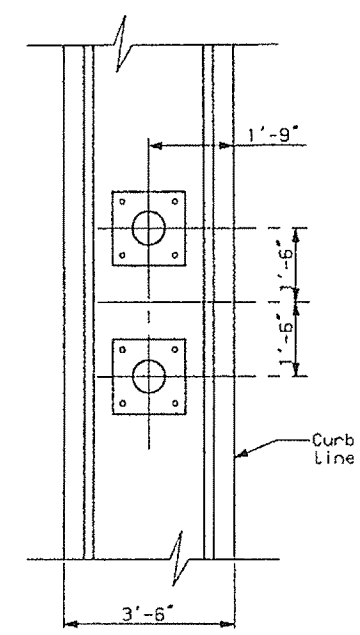
Sta. 232+38.03 (N.B.L.), Northbound roadway
(Looking ahead station)



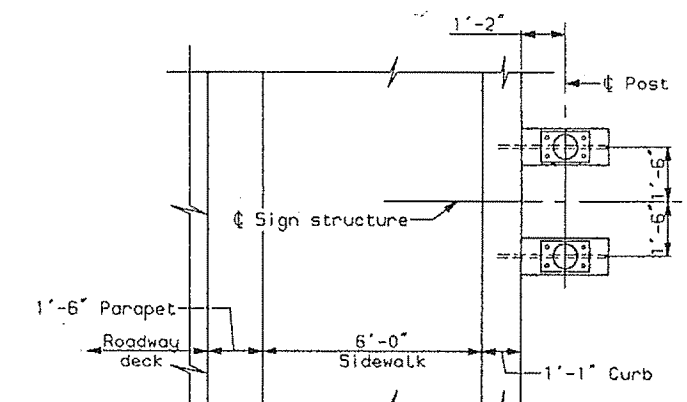
PLAN - BOTTOM CHORD



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

Fabricate and erect sign/signal support structure after placement of bituminous wearing surface.
Bush surface of concrete to provide a level surface beneath sign/signal support base plate.
Provide 2 - 1/8" thick neoprene pads for each base plate. Pad shall be 1/2" larger, all around than plan size of base plate.

NORTH APPROACH

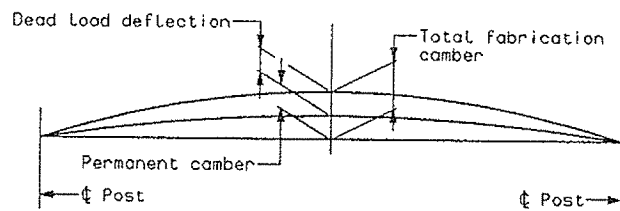
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORT
OVER FORE I
CUMBERLAND I**

**SIGN SUPP
DETAILS**

DESIGNED BY	6-93
CHECKED BY	6-94
REVISION	
FIELD CHANGES	

PLANS



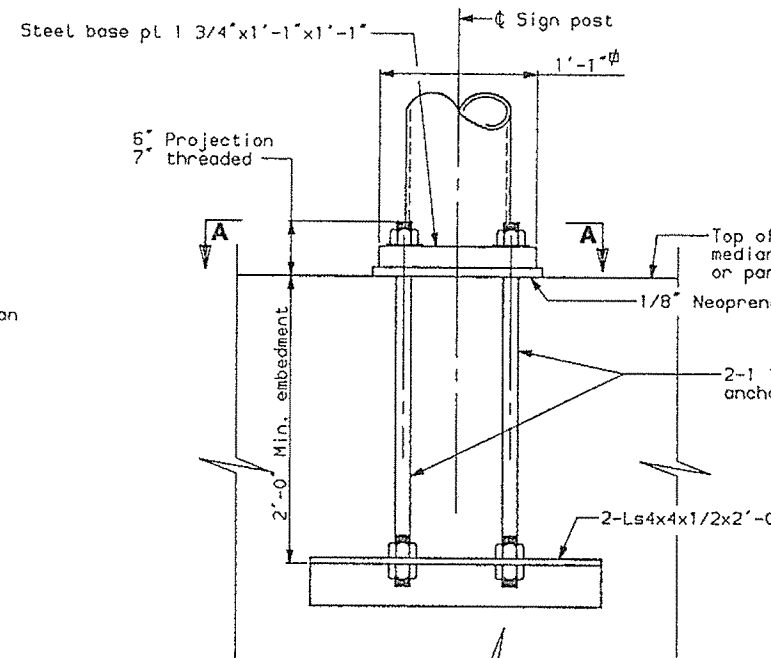
CAMBER DIAGRAM

NOT TO SCALE

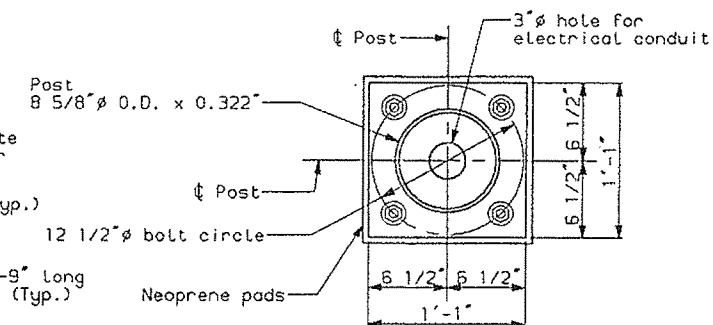
CAMBER NOTES:
Permanent camber equals span
(inches)/1000.
Camber is given in inches.

CAMBER DATA

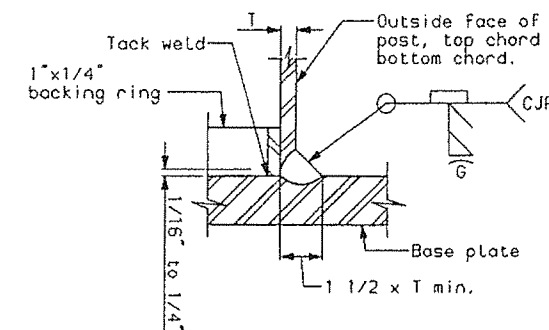
Location	Span Length	Camber			Max. sign Panel Area (sf)
		DL	Perm.	Total	
Sta. 212+32.21 N.B.L.	39'-8 1/2"	1/4"	1/2"	3/4"	190
Sta. 232+38.03 N.B.L.	47'-6"	1/2"	5/8"	1 1/8"	190
Sta. 244+79.56 N.B.L.	51'-6"	3/4"	5/8"	1 3/8"	190



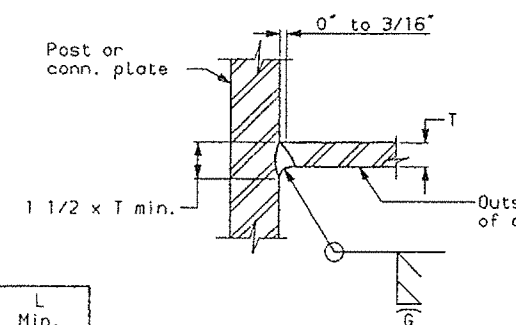
ANCHOR BOLT DETAILS



SECTION A-A

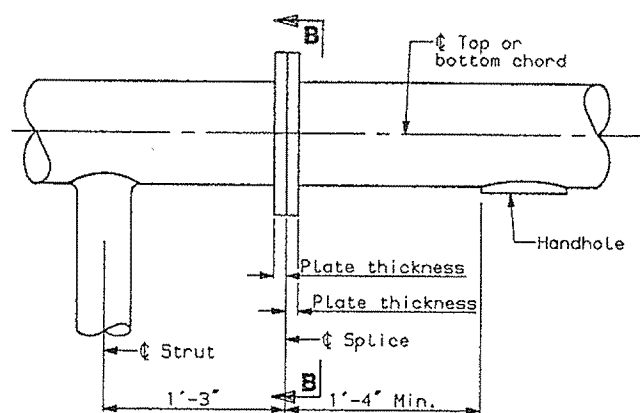


DETAIL 1



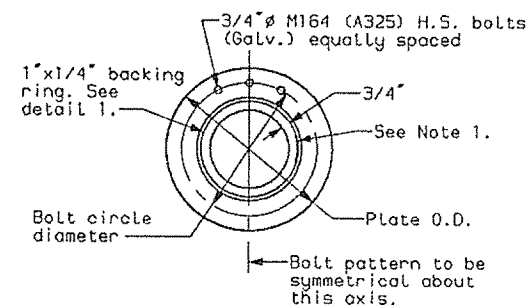
DETAIL 2

Base Metal Thickness (strut)	L Min.
Less than 1/4"	1/4"
1/4" to 5/16"	5/16"
Greater than 5/16"	3/8"

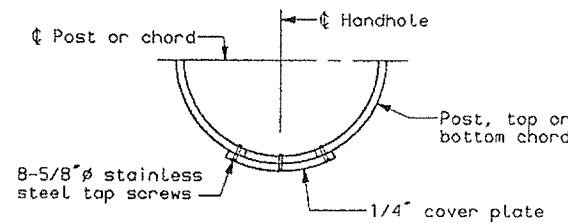


ELEVATION

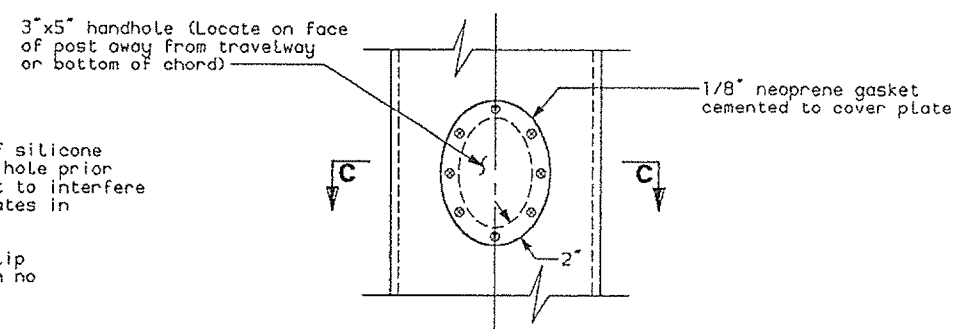
FIELD SPLICE DETAILS



SECTION B-B



SECTION C-C



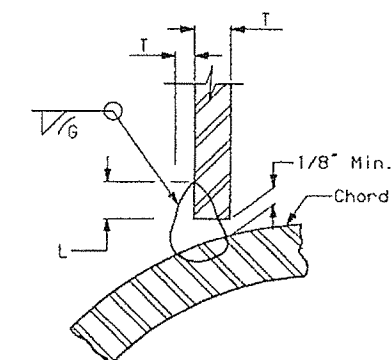
HANDHOLE AND WIRE INLET DETAILS

Field Splice Notes:

1. Place single thin bead of silicone caulking compound around hole prior to bolting. Caulking not to interfere with friction between plates in bolted area.
2. All bolted splices are slip critical connections with no threads in shear plane.

FIELD SPLICE SCHEDULE

Actual Pipe Diameter	Plate Thickness	H.S. Bolts	Bolt Circle Diameter	Plate O.D.
8.625"	1"	14 - 5/8"	11 1/8"	13 5/8"
6.625"	3/4"	8 - 5/8"	9 1/8"	11 5/8"



DETAIL 3

PIPE WELDING DETAILS

NOTES:

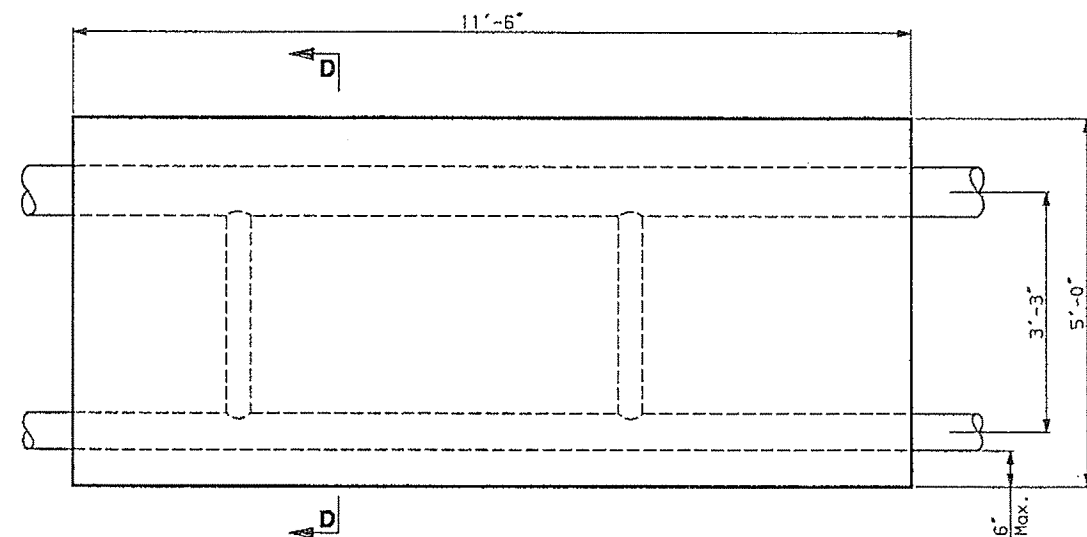
Fabricate and erect sign/signal support structure after placement of bituminous wearing surface. Bush surface of concrete to provide a level surface beneath sign/signal support base plate. Provide 2 - 1/8" thick neoprene pads for each base plate. Pad shall be 1/2" larger, all around than plan size of base plate.

NORTH APPROACH

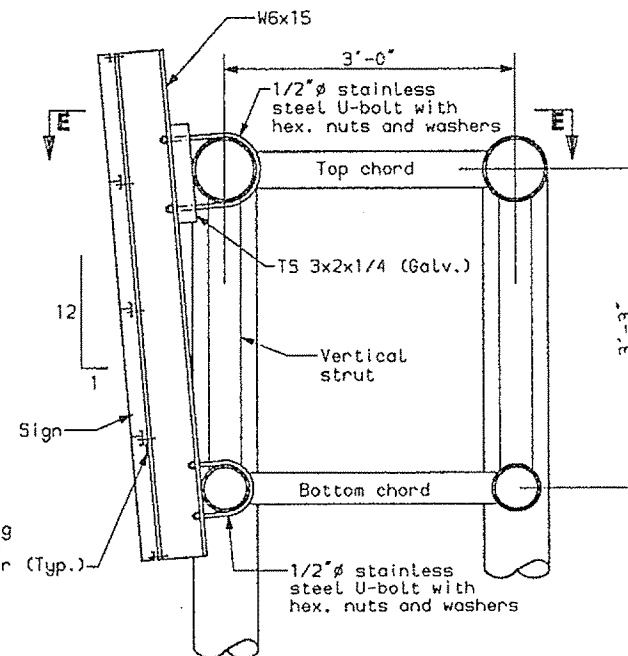
STATE OF MAINE
DEPARTMENT OF TRANSP

**PORTLAND - S. PORTL
OVER FORE RI
CUMBERLAND C**

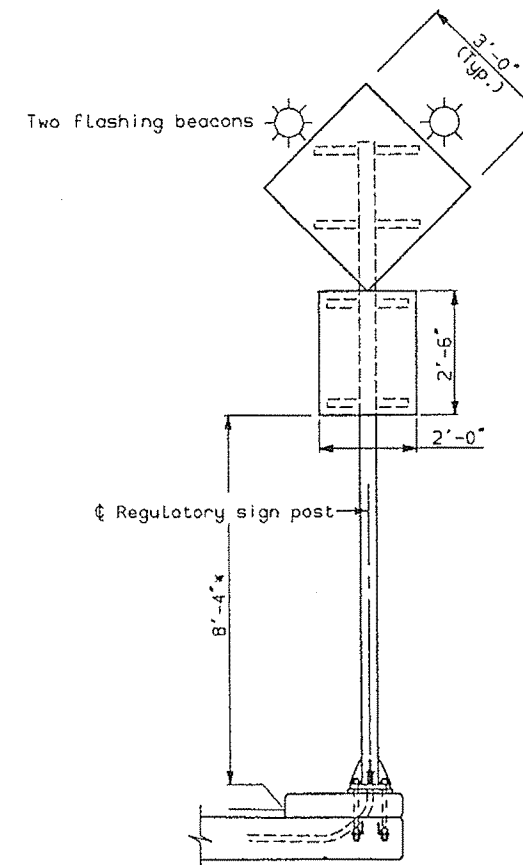
**SIGN SUPP
DETAILS -**



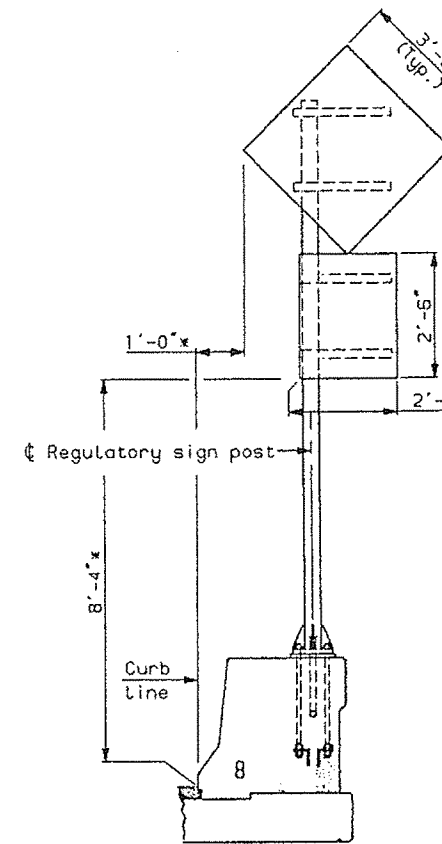
OVERHEAD SIGN SUPPORT DETAILS
(Overhead sign at Sta. 212+32.21 N.B.L.)



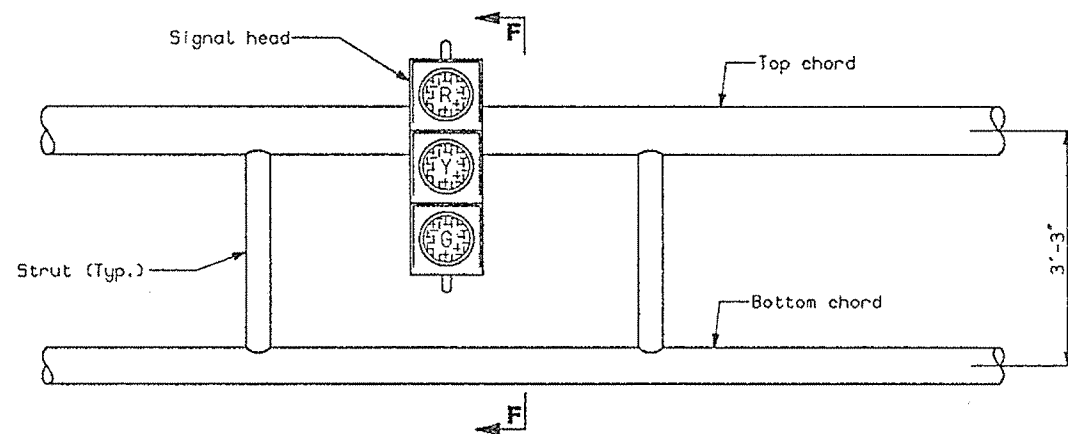
SECTION D-D



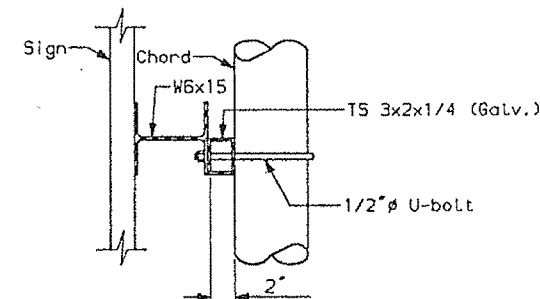
**REGULATORY SIGN
AT SIDEWALK**
(Looking ahead station)



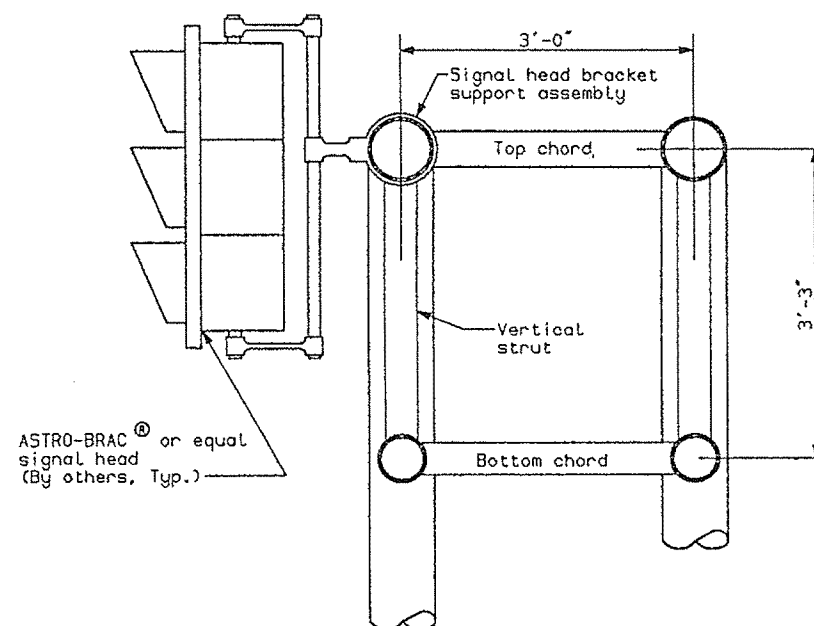
**REGULATORY SIGN
AT 1'-8" PARAPET**
(Looking back station)



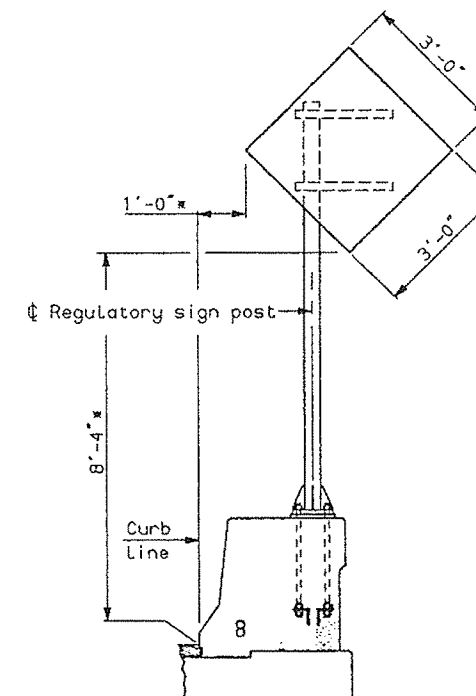
SIGNAL HEAD SUPPORT DETAILS
(Signal heads are at Sta. 232+38.03 N.B.L. and Sta. 244+79.56 N.B.L.)



SECTION E-E



SECTION F-F



**REGULATORY SIGN
AT 1'-8" PARAPET**

NOTES:

- * Mounting height and curb line is similar for signs not shown.
- Fabricate and erect sign support structure after placement of bituminous wearing surface.
- Finish surface of concrete to provide a level surface beneath sign post base plate.
- Provide 2 - 1/8" thick neopren for each base plate. Pad shall 1/2" larger, all around than plate size of base plate.

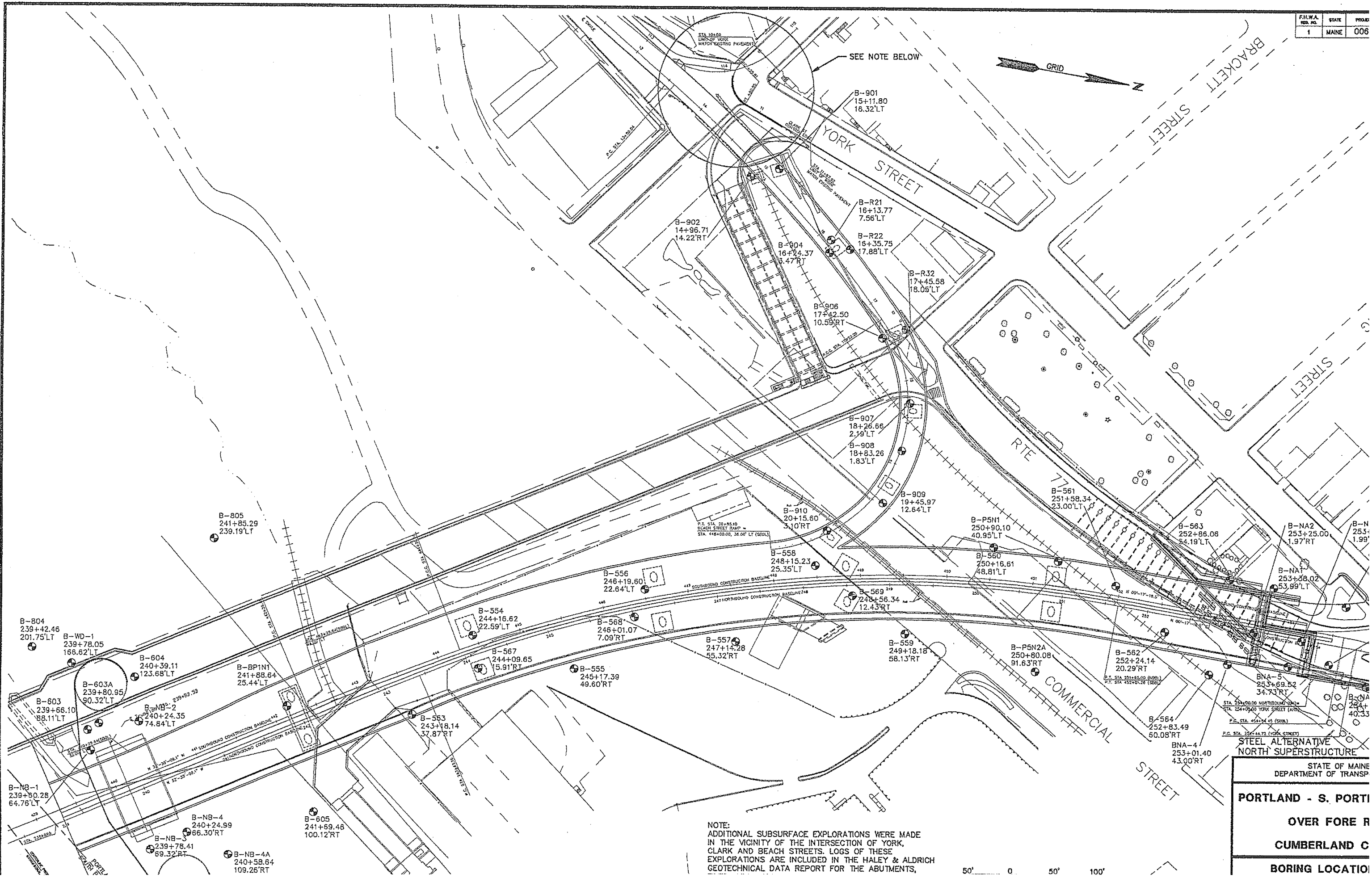
NORTH APPROACH
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**PORTLAND - S. PORTLAND
OVER FORD RIVER
CUMBERLAND CIRCLE**

**SIGN SUPPORT
DETAILS -**

PROJECT DESIGN ENGINEER	JHA	DATE	12/93
BY	RHH	REVISIONS	
DESIGN-DETAILED	HALEY & ALDRICH	FIELD CHANGES	
CHECKED			
PLANS			

3
H: DATE 1994-08-22
ITERATIVE



STEEL ALTERNATIVE
NORTH SUPERSTRUCTURE

STATE OF MAINE
DEPARTMENT OF TRANSP

PORTLAND - S. PORT

OVER FORE R

CUMBERLAND C

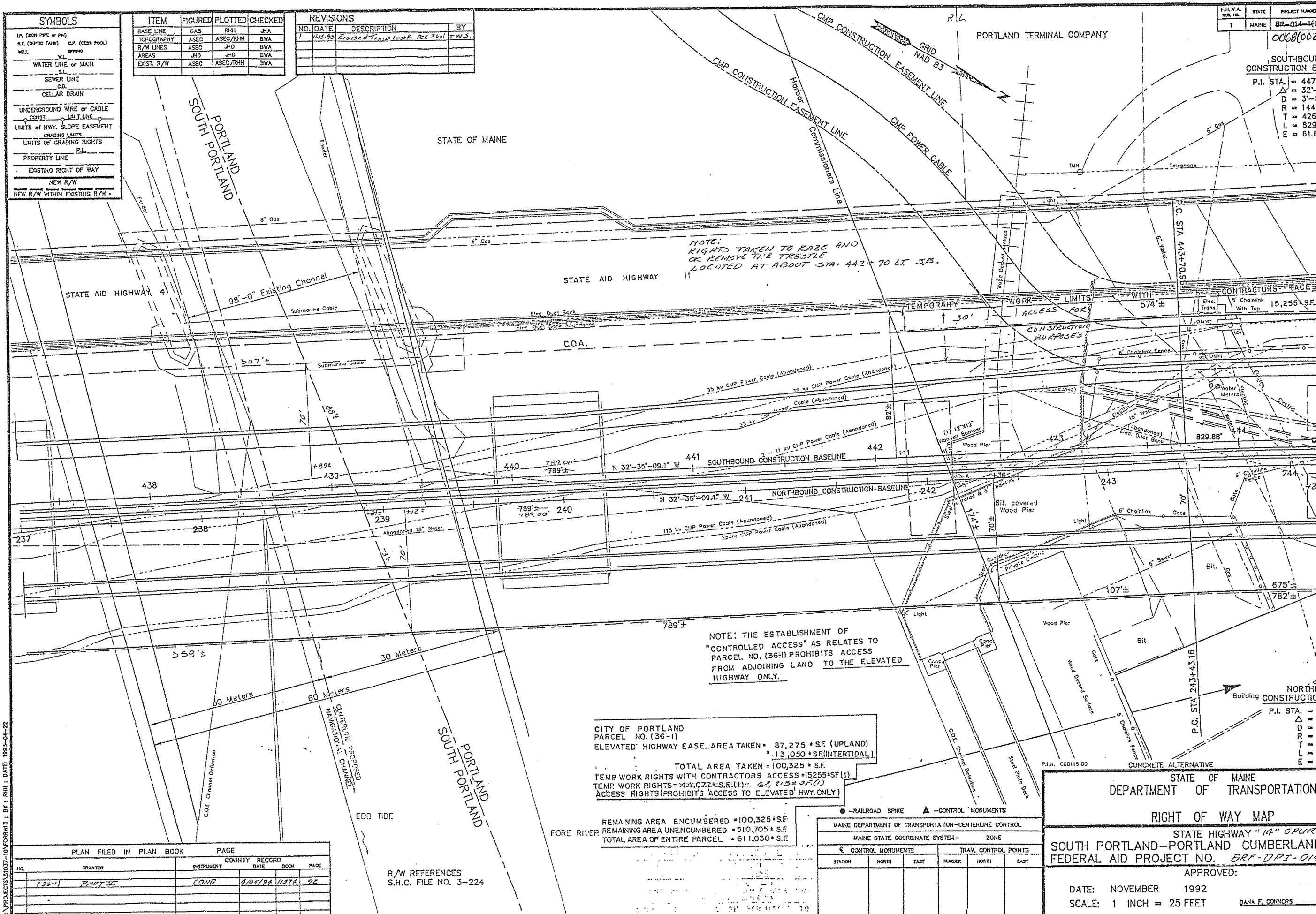
BORING LOCATION

[illegible]

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER
1	MAINE	BR-014-14

SOUTHBOURNE
CONSTRUCTION E

P.I.	STA.	=	447
	△	=	32°
	D	=	3°
	R	=	144
	T	=	426
	L	=	829
	E	=	61.6



\\PROJECTS\51037-10\FORMS ; BY : RHM ; DATE: 1983-04-22

[illegible]

R/W REFERENCES
S.H.C. FILE NO. 3-224

CITY OF PORTLAND
PARCEL NO. (36-1)
ELEVATED HIGHWAY EASE. AREA TAKEN = 87,275 * SF (UPLAND)
* 13,050 * SF (INTERTIDAL)
TOTAL AREA TAKEN = 100,325 * SF
TEMP WORK RIGHTS WITH CONTRACTORS ACCESS = 15255 * SF (1)
TEMP WORK RIGHTS = 44,072 * SF (1) = 62,215 * SF (1)
ACCESS RIGHTS/PROHIBITS ACCESS TO ELEVATED HWY ONLY

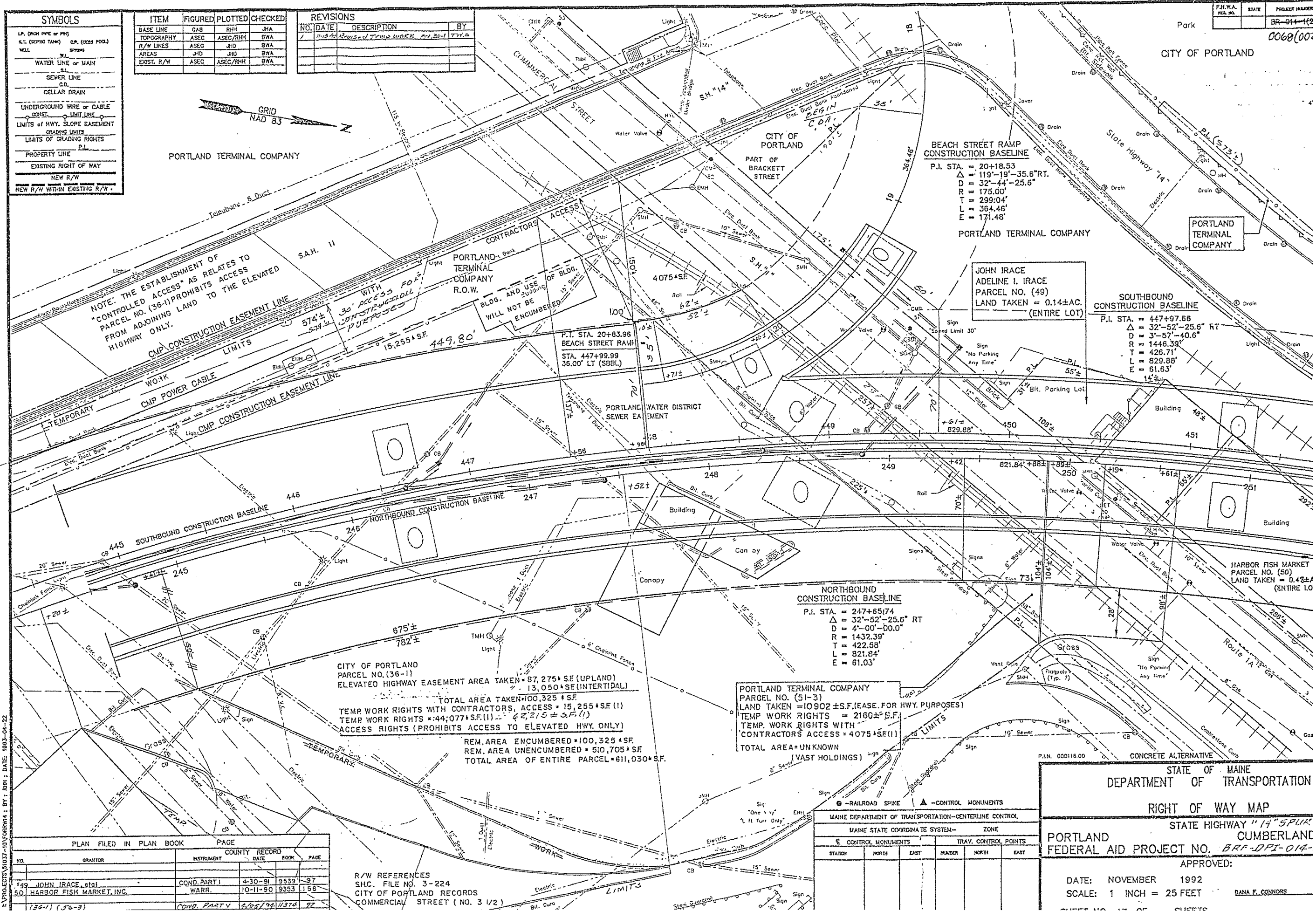
REMAINING AREA ENCUMBERED *100,325* S.F.
REMAINING AREA UNENCUMBERED *510,705* S.F.
TOTAL AREA OF ENTIRE PARCEL *611,030* S.F.

[illegible]

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY MAP
STATE HIGHWAY "12" SPUR
SOUTH PORTLAND—PORTLAND CUMBERLAND
FEDERAL AID PROJECT NO. BRP-DPI-01

DATE: NOVEMBER 1992
SCALE: 1 INCH = 25 FEET

DANA E. CONNORS



SYMBOLS	
UP. (FROM PIVOT OR FWD)	CP. (FROM PIVOT)
S.T. (DEPT. T.M.)	CP. (DEPT. T.M.)
WELL	SPRING
WATER LINE OR MAIN	
SEWER LINE	
C.D.	
CELLAR DRAIN	
UNDERGROUND WIRE OR CABLE	
CONST. LIMIT LINE	
LIMITS OF HWY. SLOPE EASEMENT	
GRADING LIMITS	
LIMITS OF GRADING RIGHTS	
PROPERTY LINE	
EXISTING RIGHT OF WAY	
NEW R/W	
NEW R/W WITHIN EXISTING R/W	

ITEM	FIGURED	PLOTTED	CHECKED	REVISIONS	BY
BASE LINE	QAB	RHM	JHA		
TOPOGRAPHY	ASEC	ASEC/RHM	BWA		
R/W LINES	ASEC	JHD	BWA		
AREAS	JHD	JHD	BWA		
EXIST. R/W	ASEC	ASEC/RHM	BWA		

NO.	DATE	DESCRIPTION	BY
1	11-24-92	REVISED TEMP WORK R/W	TJK

PROJECTS 51037-10 FORW 4: BY: 8/91; DATE: 1803-04-22

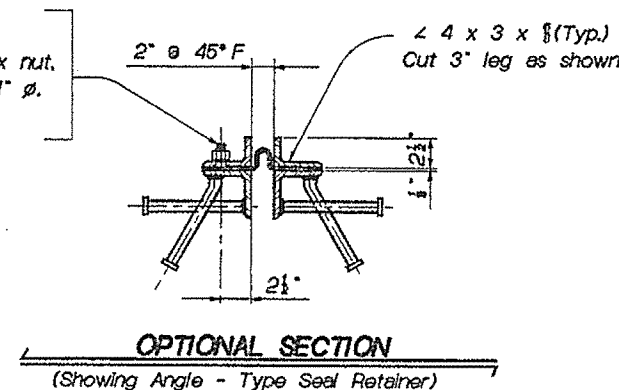
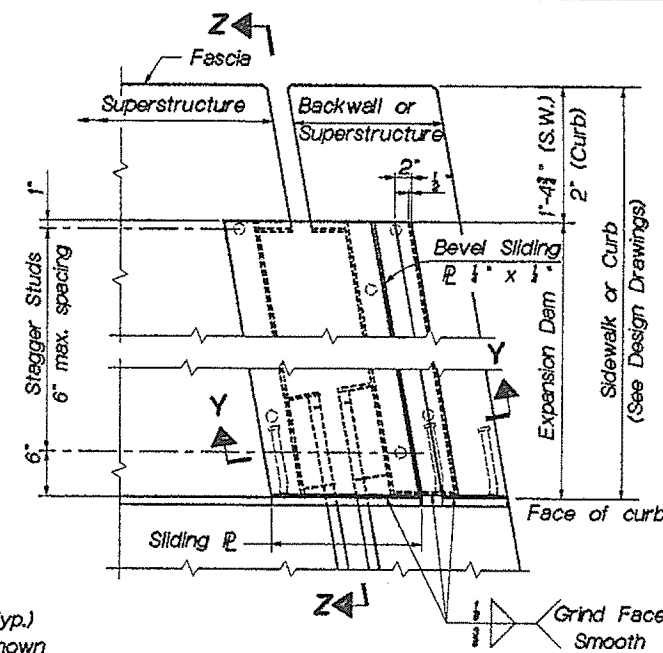
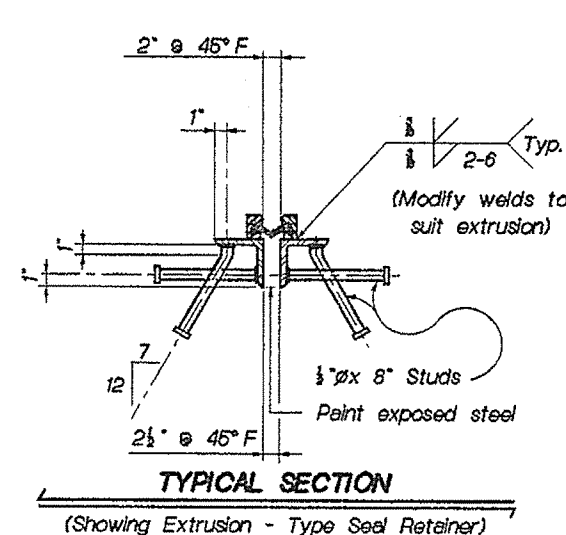
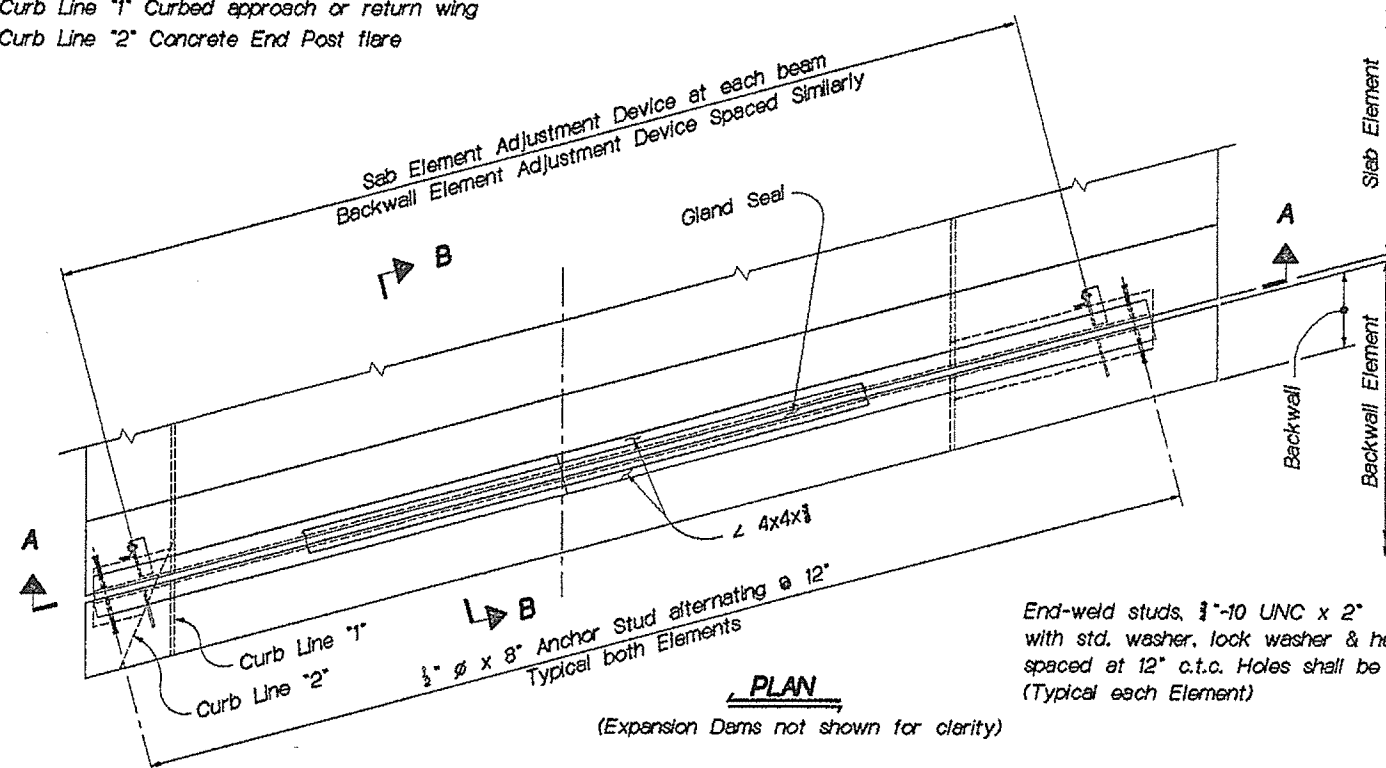
PLAN FILED IN PLAN BOOK		PAGE	
NO.	GRANTOR	INSTRUMENT	DATE
149	JOHN IRACE, et al	COND. PART I	4-30-91
150	HARBOR FISH MARKET, INC.	WARR.	10-11-90
151		COND. PART V	1-24-92

R/W REFERENCES
SHC. FILE NO. 3-224
CITY OF PORTLAND RECORDS
COMMERCIAL STREET (NO. 3 1/2)

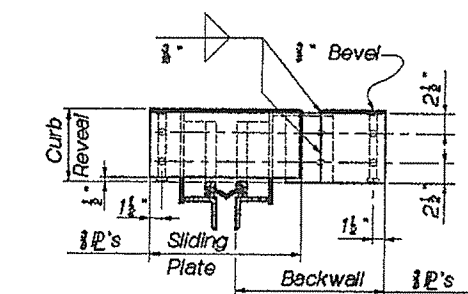
MAINE DEPARTMENT OF TRANSPORTATION-CENTERLINE CONTROL					
MAINE STATE COORDINATE SYSTEM			ZONE		
E CONTROL MONUMENTS			TRAV. CONTROL POINTS		
STATION	NORTH	EAST	MAINDER	NORTH	EAST

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY MAP
STATE HIGHWAY "14" S.P.L.R.
CUMBERLAND
PORTLAND
FEDERAL AID PROJECT NO. BRP-DPI-014-
APPROVED:
DATE: NOVEMBER 1992
SCALE: 1 INCH = 25 FEET
DANA F. CONNORS

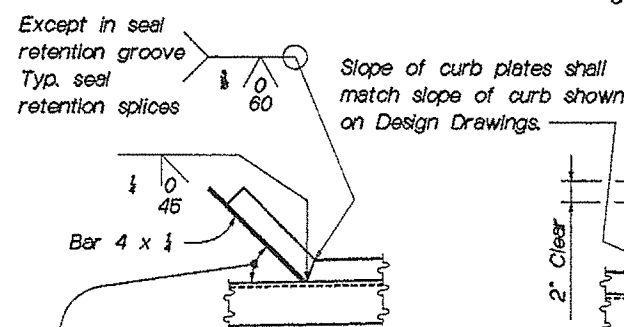
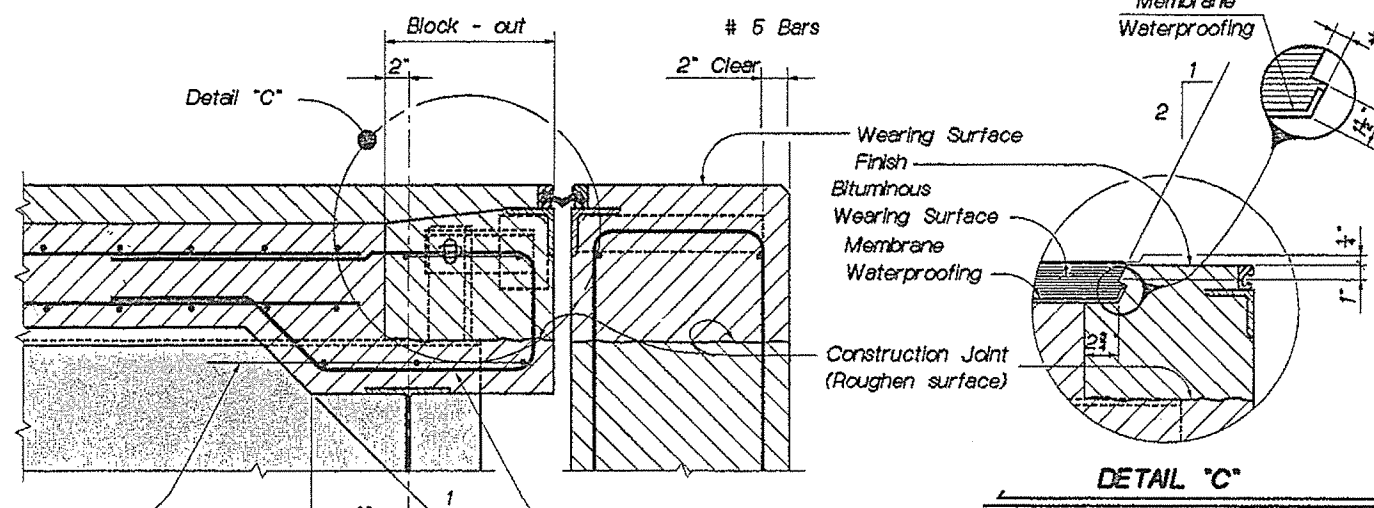
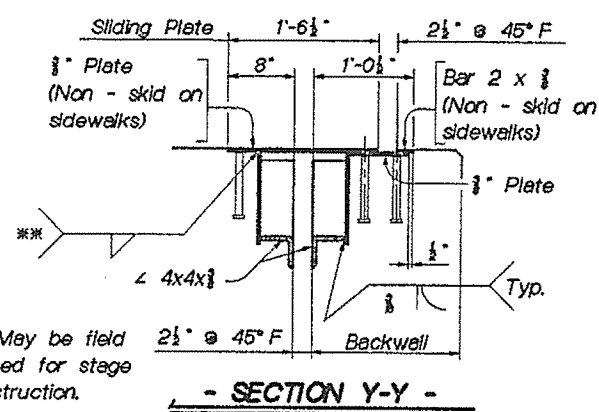
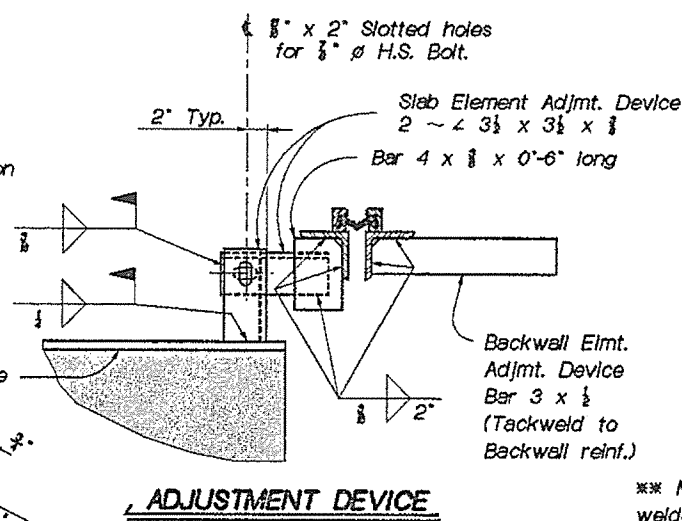
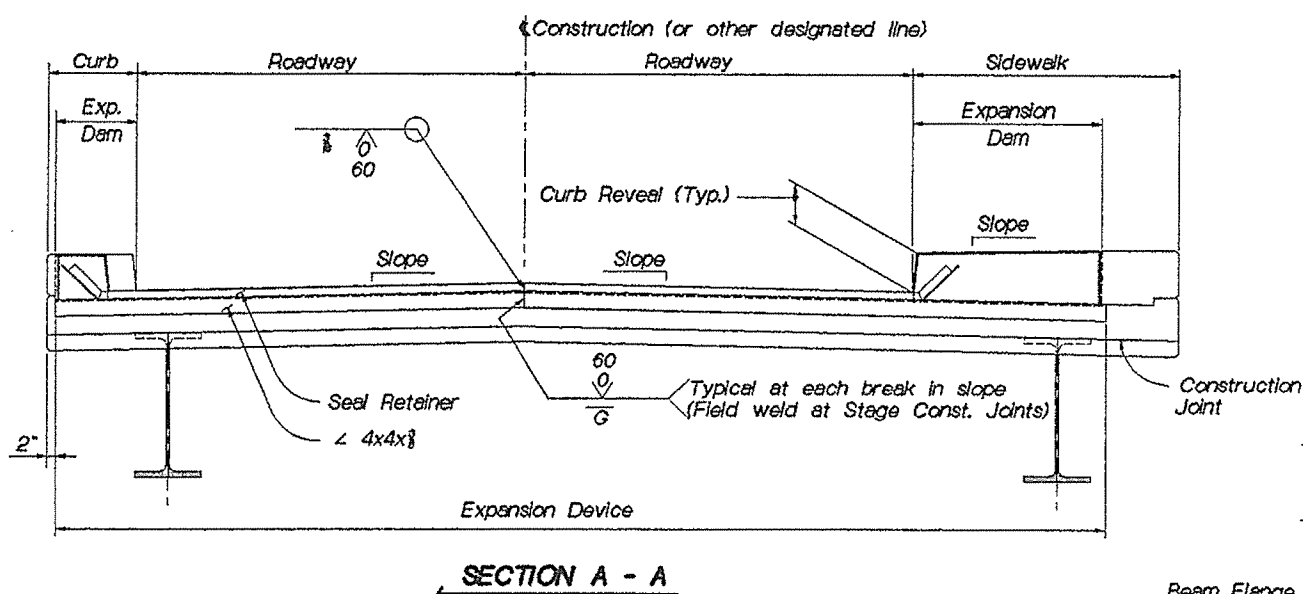
Curb Line "1" Curbed approach or return wing
Curb Line "2" Concrete End Post flare



PLAN SIDEWALK EXPANSION DAM



ELEVATION SIDEWALK EXPANSION DAM



NOTES

- Each "Expansion Device" consists of one pair of matching Slab and Backwall Elements and Expansion Dams as required. At expansion joints over piers, two Slab Elements shall be used.
- Refer to Design Drawings for all dimensions, slopes, skew, and other information necessary to fabricate and install each individual "Expansion Device".
- "Expansion Devices" shall be installed normal to grade.
- "Expansion Device" shall be set to an opening of two inches in the fabrication shop. The opening shall be adjusted in the field to reflect the temperature of the structure at the time of installation.

Correction per 10° F = $\frac{0.0125 \text{ in} \times L (\text{exp.})}{15}$

where L(exp.) at abutments is the distance in feet to the nearest fixed bearing and where L(exp.) at piers is the distance in feet between the fixed bearings at either side of the expansion joint.

5. Welding to reinforcing steel will be allowed in the top of the abutment backwall above the construction joint.

6. The slab and backwall concrete shall be in place before the "Expansion Device" is fixed in position. No allowance for movement due to dead load deflection is necessary.

7. The concrete in the slab block-out may be placed with the curb / sidewalk concrete. An approved epoxy bonding agent shall be applied to all vertical surfaces of the block-out before making the final concrete placement.

GENERAL NOTE:
In case of conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

REVISIONS	APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Description	MeDOT	FHWA	
Original Plan	JULY, 1993		

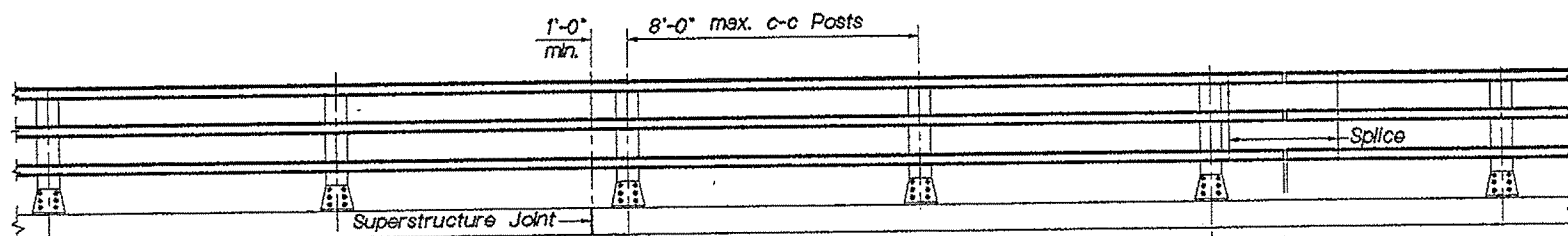
STANDARD DETAILS
BD 302 - 93

[illegible]

* Alternate dimensions may be used if approved by the Engineer.

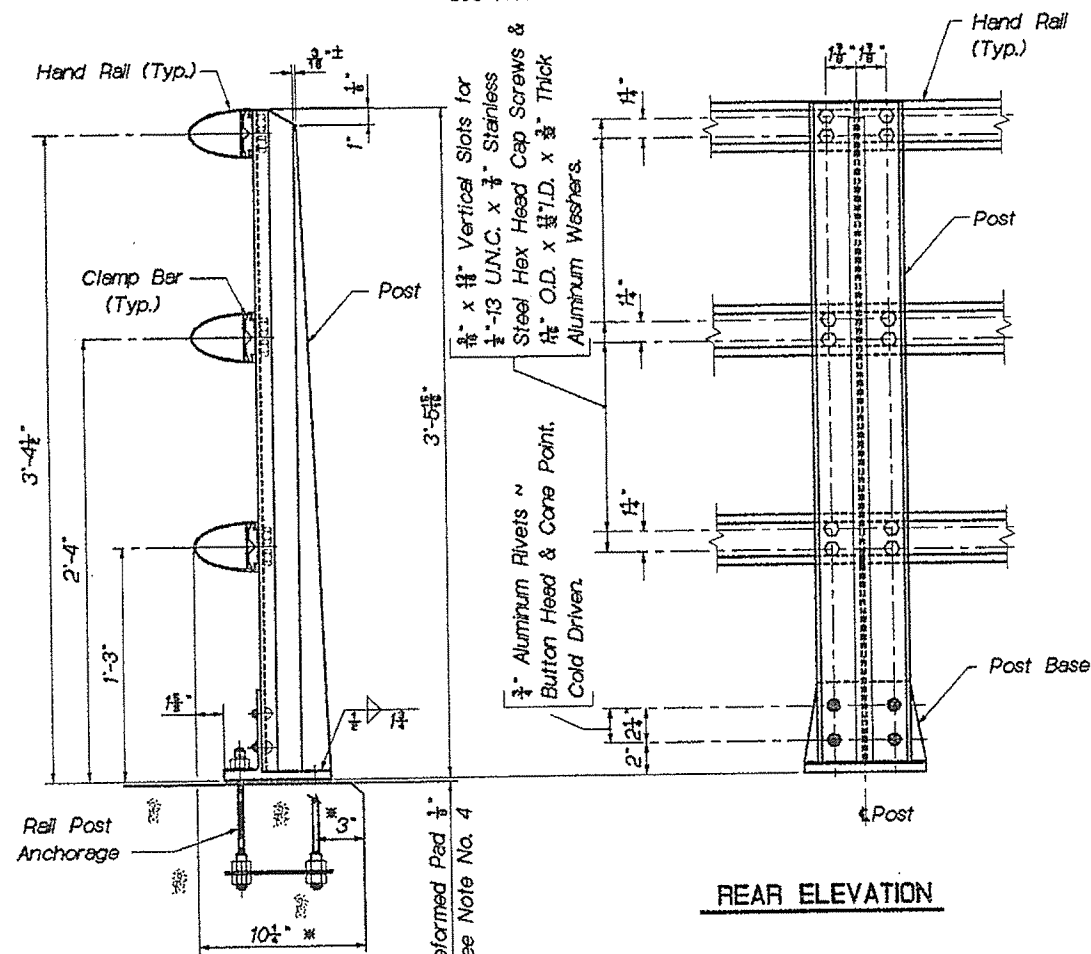
NOTES

- Ends of Rails and top edges of Rail Posts shall be rounded and free of burrs.
- Wherever possible, lengths of Rail shall be attached to at least four (4) Rail Posts, but never to less than two (2). Rail Posts shall be set normal to grade unless otherwise indicated on Design Drawings.
- Drill $2\frac{1}{8}"$ holes and install $2\frac{1}{8}"$ x 1" Type F, Hex Washer Head Tapping Screws (Stainless).
- Preformed Pads shall be $\frac{1}{8}"$ thick after compression. At least one pad shall be placed under each Rail Post Base.
- If anchor bolts are to have cut threads, body diameter shall be not less than the nominal diameter. If rolled threads are used, body diameter shall be not less than the pitch diameter of the threads.
- Asterisk (*) indicates preferable minimum dimensions. For actual dimensions, See Design Drawings.



RAILING - ELEVATION

See Note No. 2



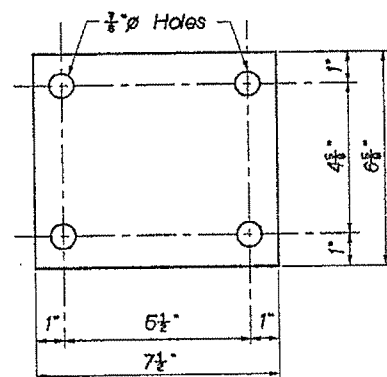
SIDE ELEVATION

* See Note No. 6

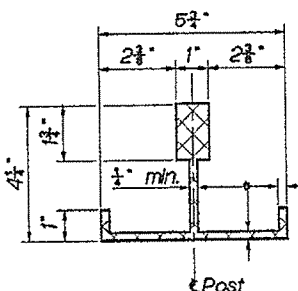
REAR ELEVATION

2'-0"±
Exp. Joints
Typ. Joints $\frac{1}{2}"$

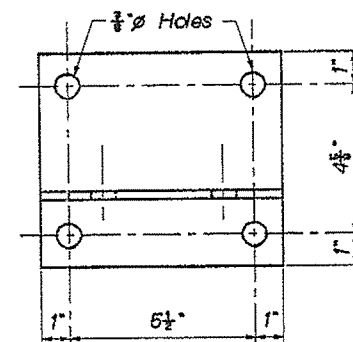
2" x 70° F Bridge Exp. Joints unless otherwise noted, on Design Drawings.



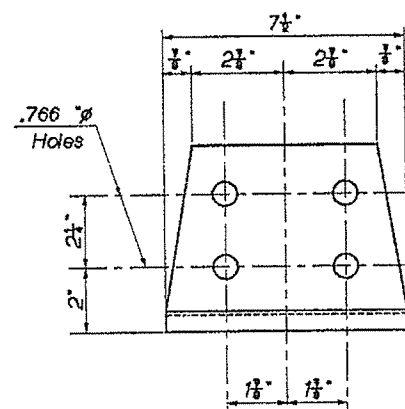
PREFORMED PAD



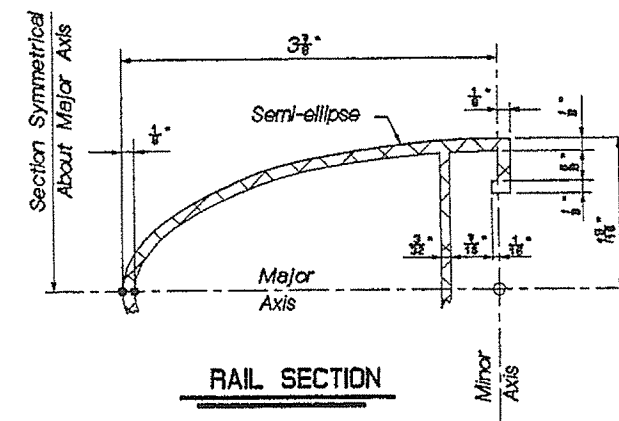
POST SECTION



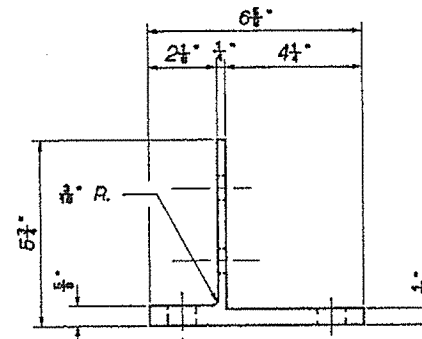
PLAN



FRONT

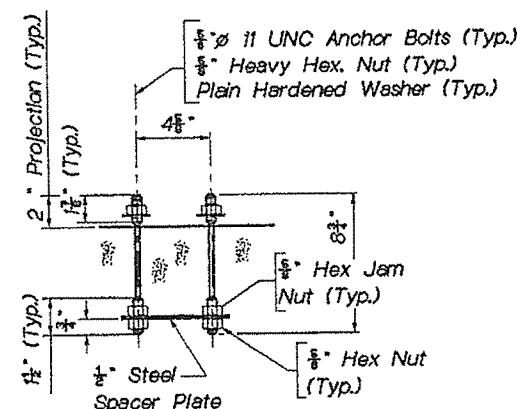


RAIL SECTION



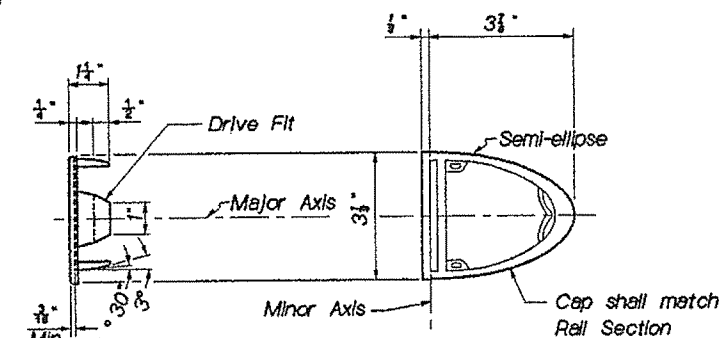
SIDE

POST BASE DETAILS

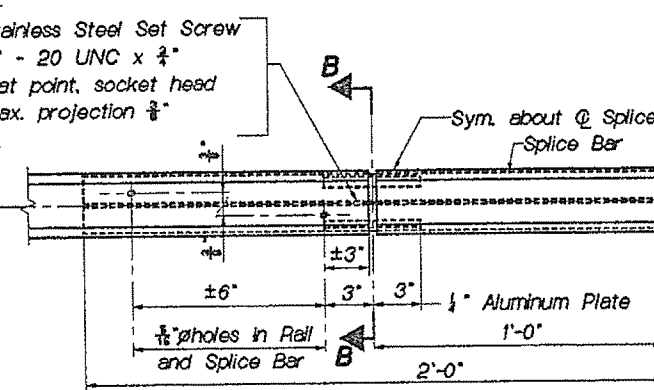
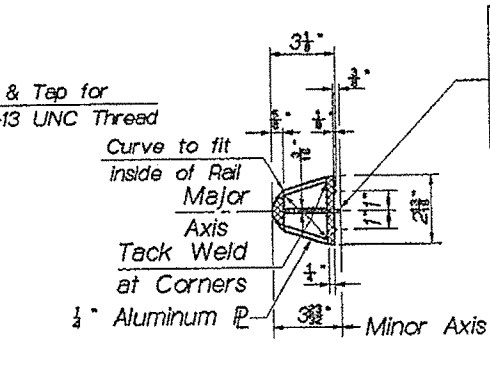
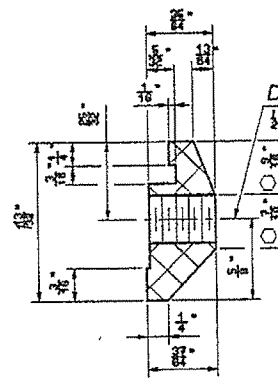
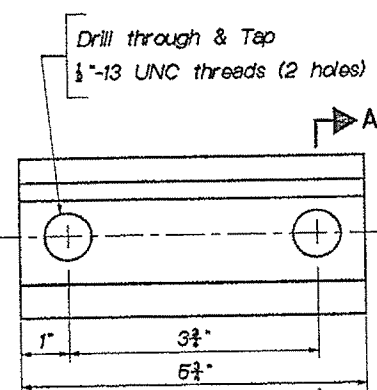
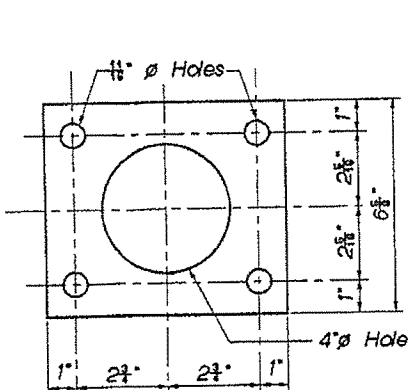


RAIL POST ANCHORAGE

See Note No. 5



RAIL CAP



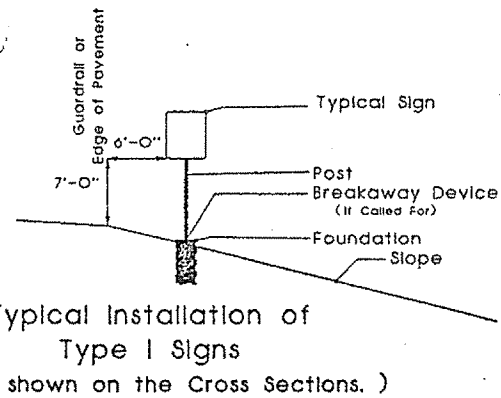
GENERAL NOTE:
In case of conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

REVISIONS		APPROVED		STATE OF MAINE	
Description		Ms.DOT	FHWA	DEPARTMENT OF TRANSPORTATION	
Original Plan		JULY, 1993			

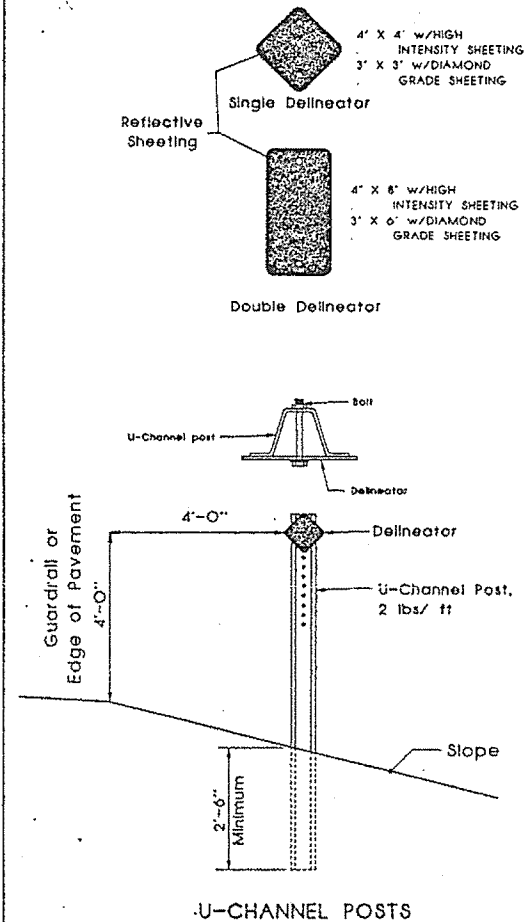
STANDARD DETAILS
BD 403 - 93

ALUMINUM BRIDGE RAILING

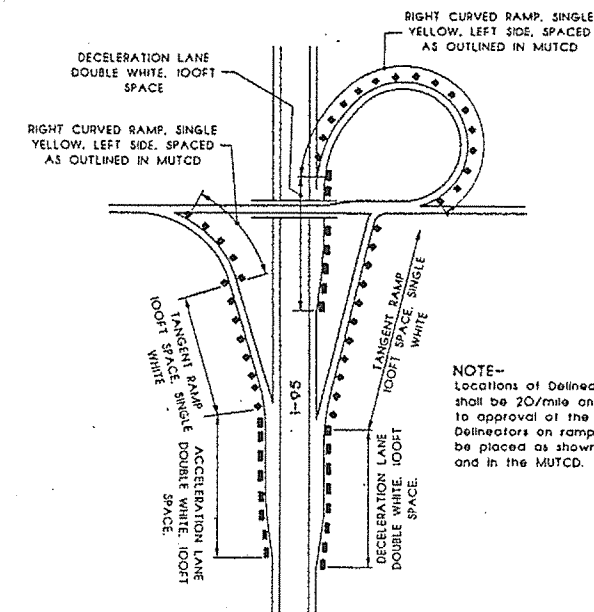
ITEM NO. 645.271



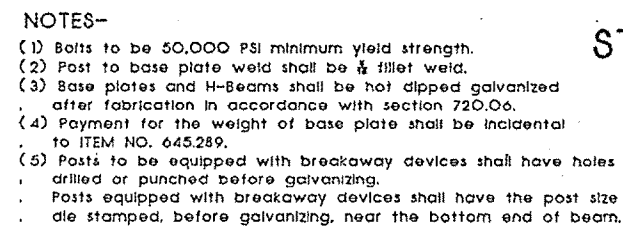
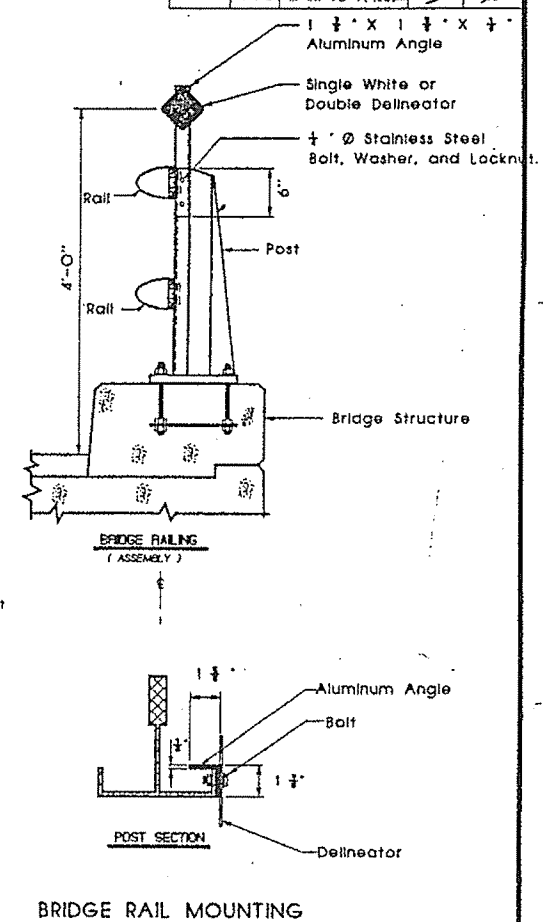
NOTE-
Bolt holes in sign panels
shall be located as shown
in "Standard Highway Signs".



ITEM NO. 645.301
ITEM NO. 645.302
ITEM NO. 645.303



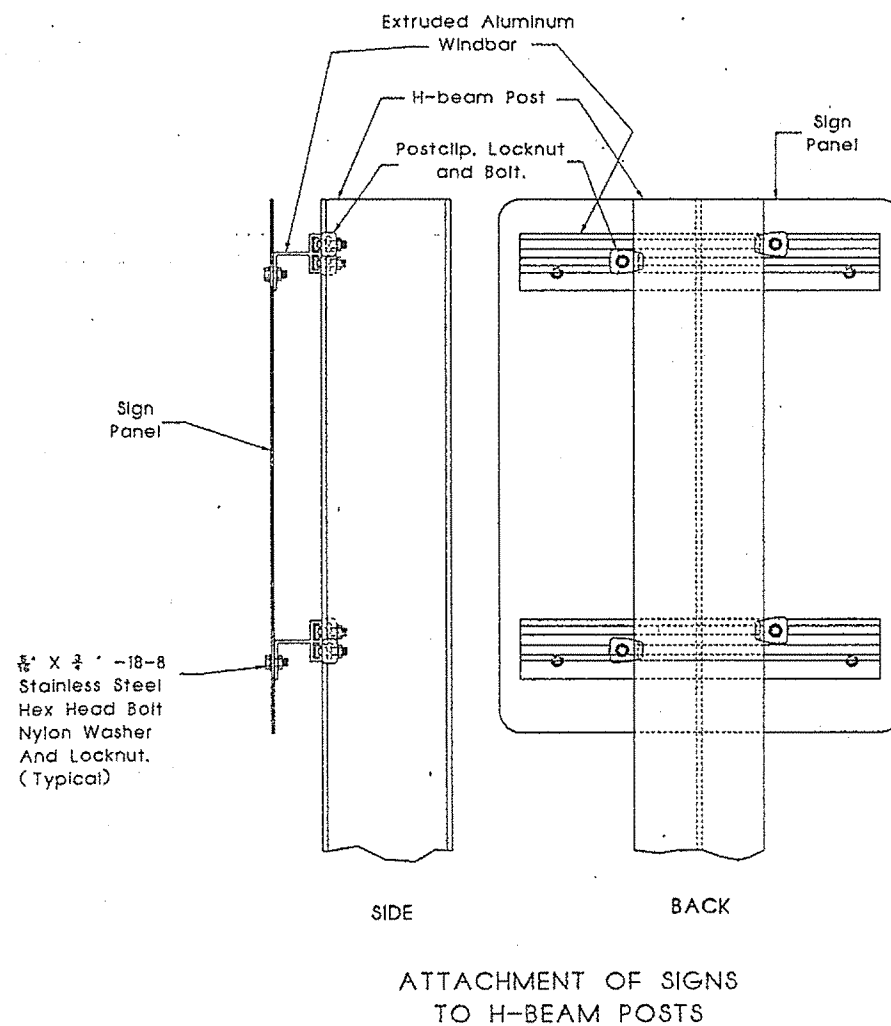
NOTE-
Locations of Delineators
shall be 200/mile on mainline, subject
to approval of the Engineer.
Delineators on ramps shall
be placed as shown above
and in the MUTCD.

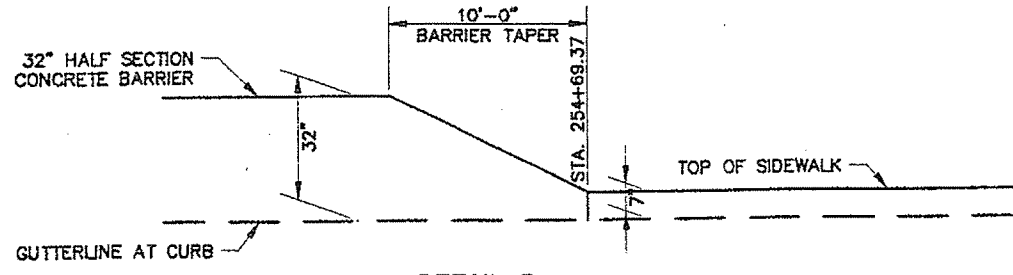


STANDARD H-BEAM POSTS

NOTE: Some posts, at noted locations, on this project will be installed on existing foundations.

SINGLE SUPPORT SIGNS								
Foundation Size	Sign Area (A)	Sign Width (W)	Post Size	Base Plate (1), (3)	Material	Anchor Bolts (2)	Bolt Circle	Maximum Mounting Height
	$0 - 10 \text{ ft}^2$	Use Wood Posts						13 Feet to Center of Sign
18"	$10 < A \leq 16 \text{ ft}^2$	W=4'-0" Max. But includes 5 ft Yield Sign	W6X9	12"x 12"x 1" 41 LBS	A36	1" Ø x 3'-0"	12"	
18"	$16 < A \leq 25 \text{ ft}^2$	W= 5'-0" Max.	W6X15	12"x 12"x 1" 41 LBS	A36	1" Ø x 3'-0"	12"	
24"	$25 < A \leq 42 \text{ ft}^2$	W= 7'-0" Max.	W8X24	14"x 14"x 1" 55 LBS	A36	1 1/2" Ø x 3'-6"	14"	
MULTIPLE SUPPORT SIGNS								
24"	To 60ft ² /Post		W8X18	14"x 14"x 1" 55 LBS	A36	1 1/2" Ø x 3'-6"	14"	20 Feet to Center of Sign
24"	60-85ft ² /Post		W10X22	12"x 17"x 1 1/2" 72 LBS	A36	1 1/2" Ø x 3'-6"	15"	
30"	85-110ft ² /Post		W12X26	13"x 19"x 1 1/2" 87 LBS	A36	1 1/2" Ø x 4'-0"	17"	
30"	110-135ft ² /Post		W14X30	14"x 21"x 1 1/2" 104 LBS	A36	1 1/2" Ø x 4'-0"	19"	

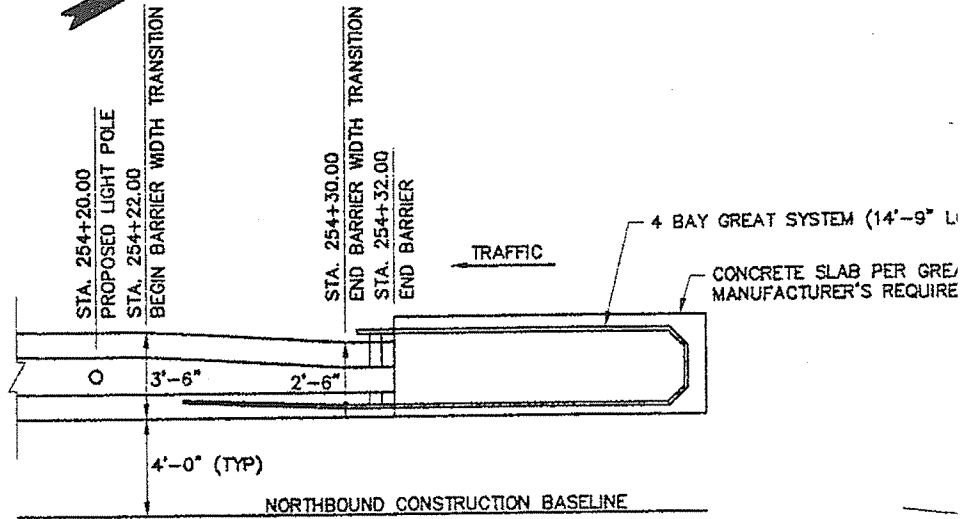
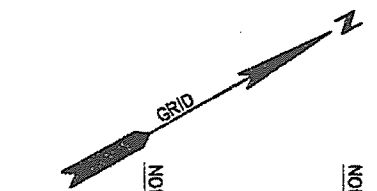
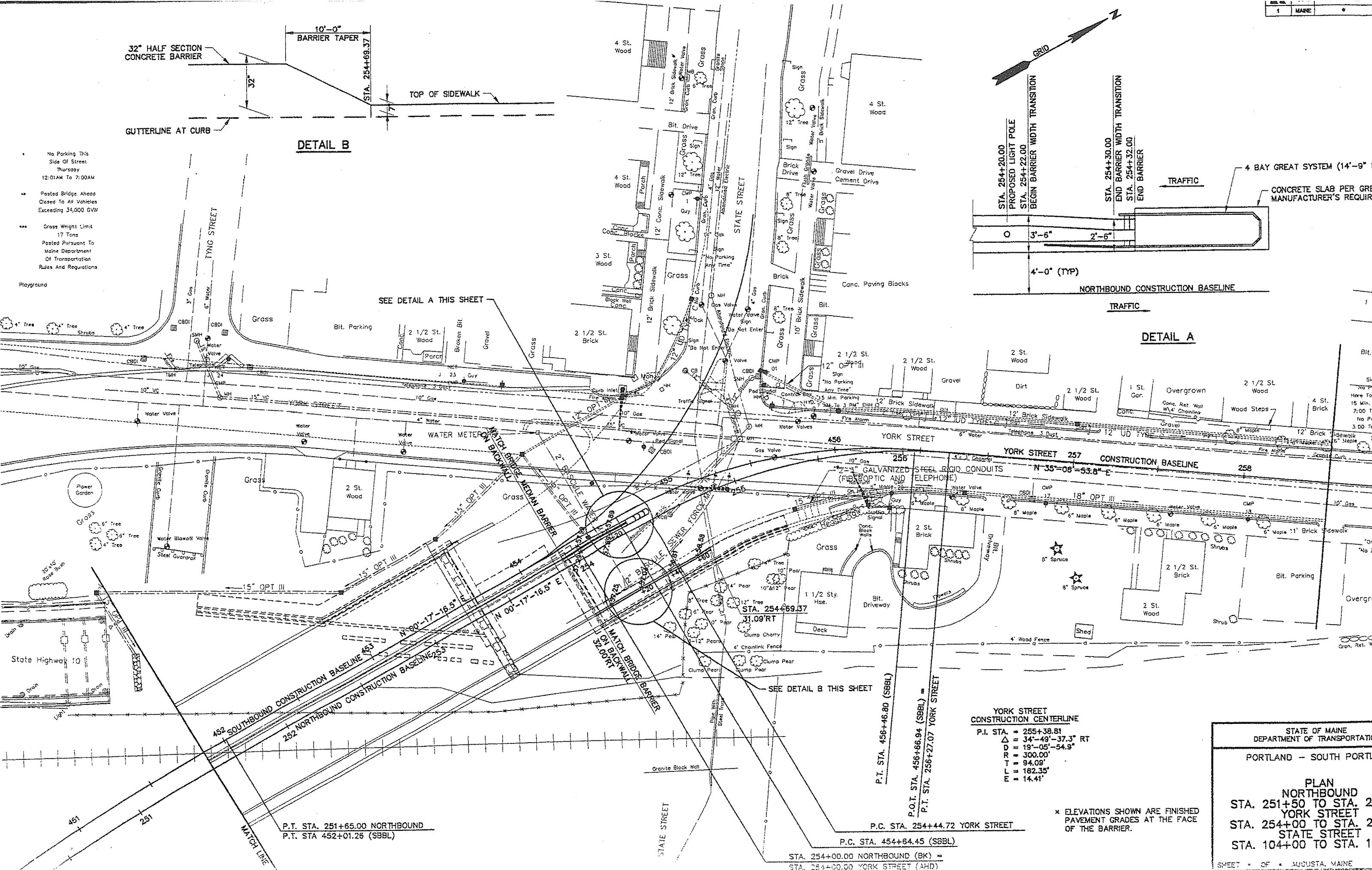
[illegible]



DETAIL B

No Parking This Side Of Street Thursday 12:01AM To 7:00AM
Posted Bridge Ahead Closed To All Vehicles Exceeding 34,000 GVW
Gross Weight Limit 17 Tons Posted Pursuant To Maine Department Of Transportation Rules And Regulations

Playground



DETAIL A

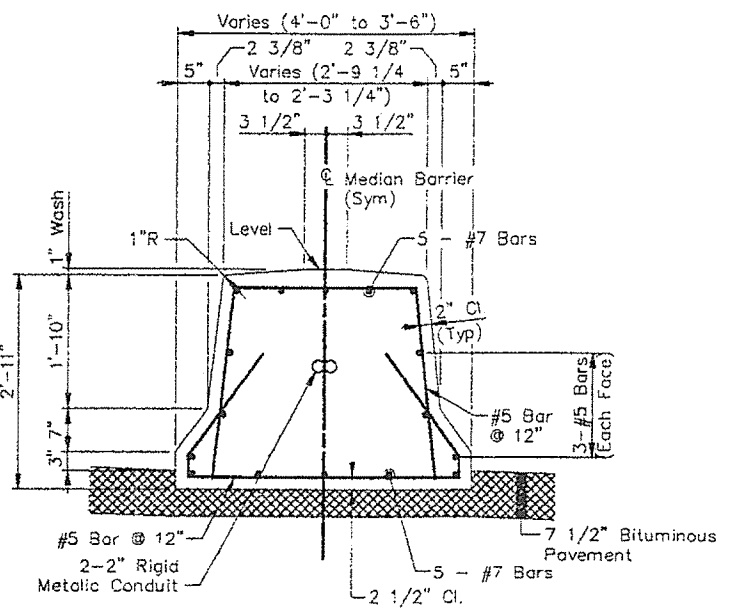
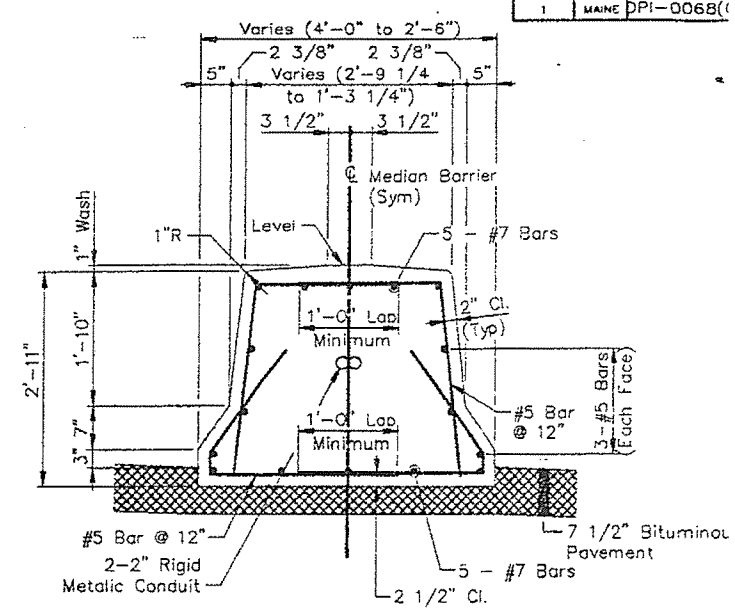
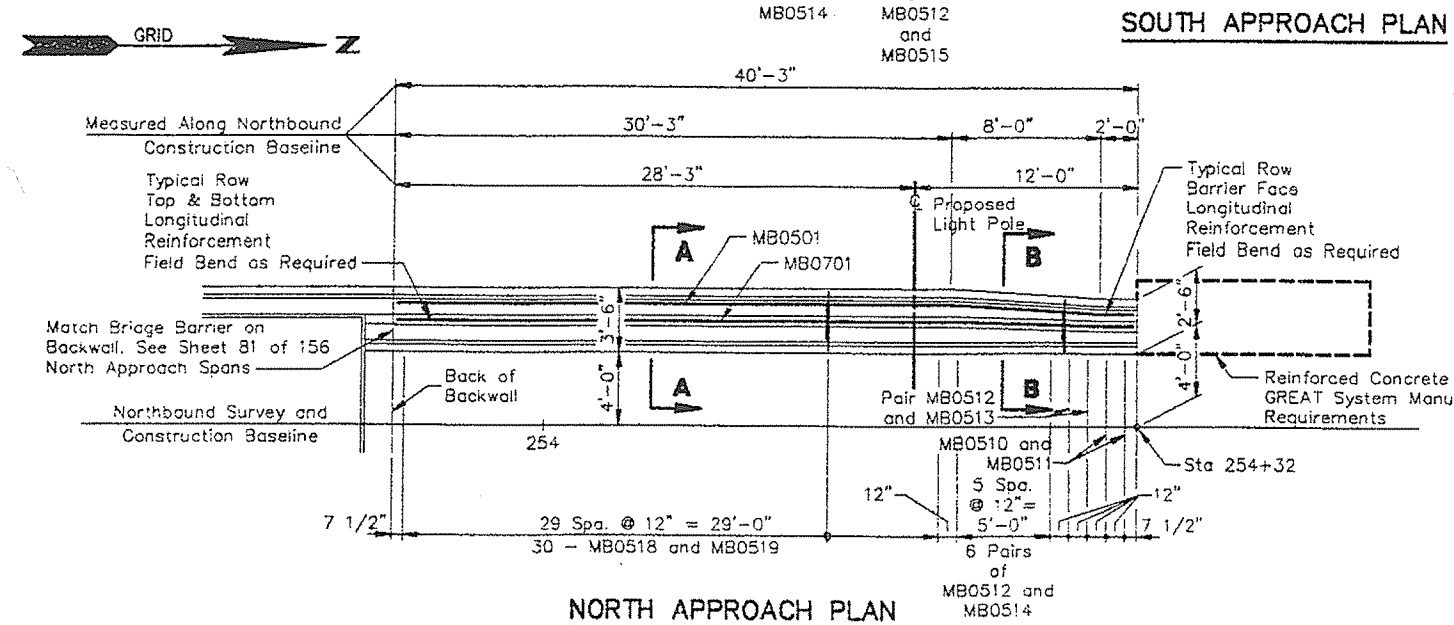
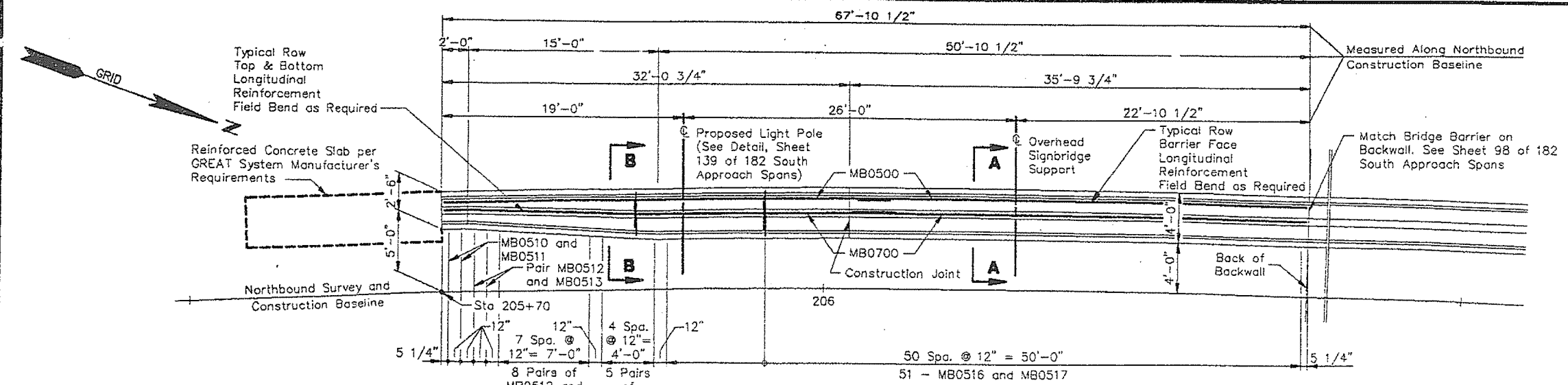
YORK STREET
CONSTRUCTION CENTERLINE
P.I. STA. = 255+38.81
 Δ = 34°-49'-37.3" RT
 ϕ = 19°-05'-54.9"
R = 300.00'
T = 94.08'
L = 182.35'
E = 14.41'

* ELEVATIONS SHOWN ARE FINISHED PAVEMENT GRADES AT THE FACE OF THE BARRIER.

STATE OF MAINE
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PORTLAND - SOUTH PORTLAND

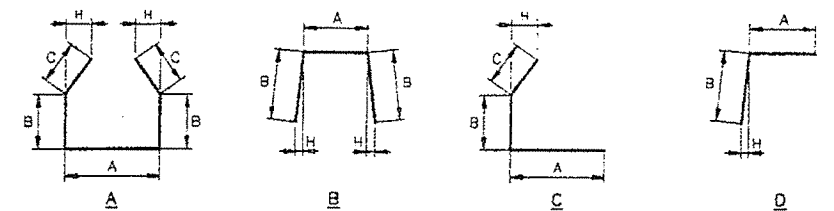
PLAN
NORTHBOUND
STA. 251+50 TO STA. 254+00
YORK STREET
STA. 254+00 TO STA. 254+10
STATE STREET
STA. 104+00 TO STA. 104+10

SHEET * OF * AUGUSTA, MAINE



NOTES

1. All reinforcing steel bars shall be epoxy coated.
2. Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
3. Form a 3/4 inch chamfer on the top and end edges of concrete.
4. Lap splices in longitudinal reinforcing steel shall be a minimum of 2'-6" for #5 bars and 3'-9" for #7 bars.
5. A minimum pavement thickness of one inch is required at the base of the barrier lateral support.
6. Apply protective coating for all exposed concrete surfaces of the concrete barrier in accordance with Sections 515.02 and 711.05 of the Standard Specifications.
7. All concrete in the barrier shall contain silica fume additive in accordance with Section 701.12 of the Standard Specifications.
8. The Contractor shall note that the 2-2" Rigid Metallic Conduits in the South Port approach median barrier will need to be transitioned vertically downward through the barrier to match the location of the highway approach conduits. This transition shall be coordinated with the Engineer and the highway lighting conduit contractor.



All dimensions are out to out of reinforcing bar. Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318. Reinforcing Bar: ASTM A615 Grade 60.

GENERAL NOTES

1. Bar mark nomenclature as follows:



												</

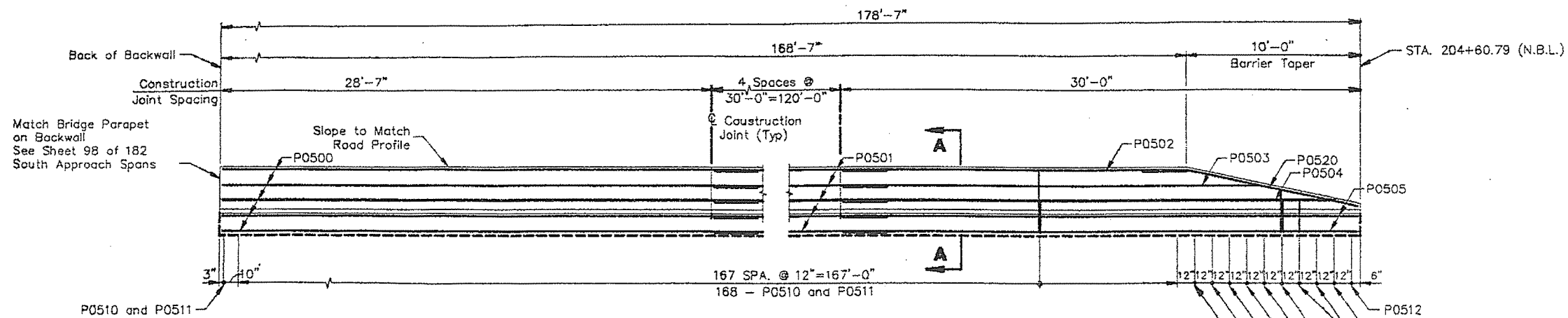
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PORTLAND - S. PORTLAND

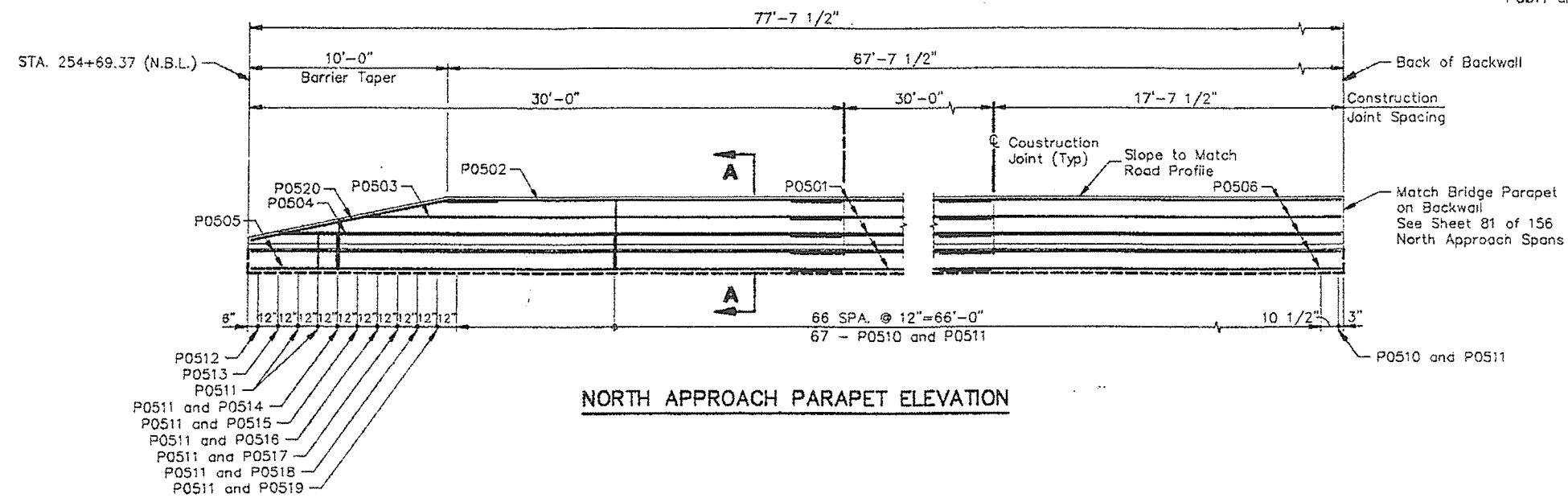
OVER FORD RIVER

CUMBERLAND COUNTY

MEDIAN BARRIER



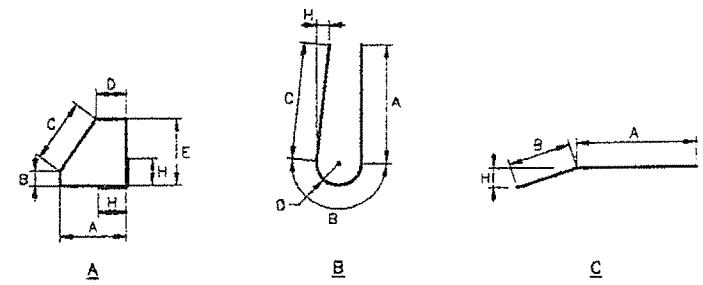
SOUTH APPROACH PARAPET ELEVATION



NORTH APPROACH PARAPET ELEVATION

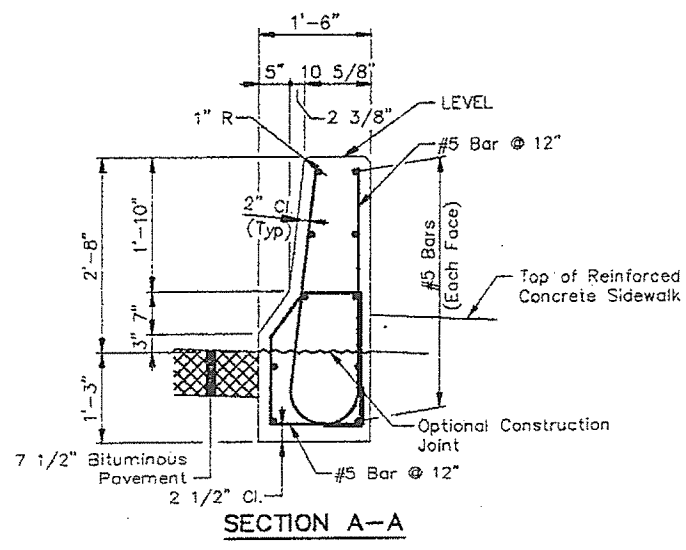
NOTES

1. All reinforcing steel bars shall be epoxy coated.
2. Reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
3. Form a 3/4 inch chamfer on the top and end edges of concrete.
4. Lap splices in longitudinal reinforcing steel shall be a minimum of 2'-6" for #5 bars.
5. Apply protective coating for all exposed surfaces of the concrete barriers in accordance with Sections 515.02 and 711.05 of the Standard Specifications.
6. All concrete in the barrier shall contain a silica fume additive in accordance with Section 701.12 of the Standard Specifications.



STRAIGHT BARS				BENT BARS										LOCATION	
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	H		
P0506	10	19'-11"	North Approach	P0516	2	6'-1"	B	2'-4"	1'-5"	2'-4"	5 1/2"	3"		North Approach And South Approach	
P0505	8	29'-10"	North Approach And South Approach	P0515	2	5'-8"	B	2'-1"	1'-5"	2'-1"	5 1/2"	2 3/4"		North Approach And South Approach	
P0504	4	28'-7"	North Approach And South Approach	P0514	2	5'-3"	B	1'-11"	1'-5"	1'-11"	5 1/2"	2 1/2"		North Approach And South Approach	
P0503	4	24'-3"	North Approach And South Approach	P0513	2	4'-11"	A	1'-2"	1'-3 1/2"	8"	9"	1'-9"	6"	North Approach And South Approach	
P0502	4	20'-0"	North Approach And South Approach	P0512	2	5'-0"	A	1'-2"	1'-3 1/2"	4"	1'-2"	1'-6"	6"	North Approach And South Approach	
P0501	50	32'-6"	North Approach And South Approach	P0511	253	6'-1"	A	1'-2"	1'-3 1/2"	8 1/2"	9"	1'-10 1/2"	6"	North Approach And South Approach	
P0500	10	30'-11"	South Approach	P0510	237	5'-5"	B	3'-1"	1'-5"	3'-1"	5 1/2"	4"		North Approach And South Approach	

REINFORCING STEEL SCHEDULE



All dimensions are out to out of reinforcement. Bending details and hooks shall conform to the recommendations of the current revision of the ACE Standard 318. Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

1. Bar mark nomenclature as follows:
Bar Size
Component Type
Sequence

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OVER FORD RIVER

CUMBERLAND COUNTY

PARAPET