STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

RUMFORD
OXFORD COUNTY
UPPER CANAL BRIDGE
OVER
MILL CANAL
ROUTE 108 (BRIDGE STREET)
STATE PROJECT NO. 019058.00
PROJECT LENGTH 0.095 mi.
BRIDGE NO. 5619

Michael Wright
SIGNATURE
8089
P.E. NUMBER
11-30-2015
DATE

STATE OF MAINE
Michael Harry Wight
8089
LICENSED
PROFESSIONAL ENGINEER

Indicates responsibility for the Heavy Duty Joint Details and the Detour Plan, Profile, & Sections depicted on Sheets 20-21 and 28-35, respectively.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: 12/7/15
CHIEF ENGINEER: 12-7-15

STATE OF MAINE
JOSHUA K. LAND
No. 12130
LICENSED
PROFESSIONAL ENGINEER
SIGNATURE
12130
P.E. NUMBER
11/13/2015
DATE

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Seventh Edition, 2014 and interims through 2015.

DESIGN LOADING

Live Load ..... HL - 93 Modified for Strengths (Truck only increased 25%)

TRAFFIC DATA

Current (2013) AADT	8160
Future (2033) AADT	9790
DHV - % of AADT	10
Design Hour Volume	979
Heavy Trucks (% of AADT)	13
Heavy Trucks (% of DHV)	10
Directional Distribution (% of DHV)	52
18 kip Equivalent P 2.0	1461
18 kip Equivalent P 2.5	1392
Posted Speed (mph)	25

MATERIALS

Concrete:
- All ..... Class "A"

Reinforcing Bars:
- Structural Concrete Slab ..... GFRP
- Curbs, Sidewalks & Transition Barriers ..... ASTM A 615/A 775, Grade 60 (epoxy-coated)

Structural Steel:
- All Material (except as noted) ..... ASTM A 709, Grade 50
- High Strength Bolts ..... ASTM A 325, Type 1

BASIC DESIGN STRESSES

Concrete (Class A)	f 'c = 4,000 psi
Reinforcing Steel	f y = 60,000 psi
Structural Steel:	
ASTM A 709, Grade 50	F y = 50,000 psi
ASTM A 709, Grade 36	F y = 36,000 psi
ASTM A 325	F u = 120,000 psi

LIST OF DRAWINGS

Title Sheet 1
Estimated Quantities 2
General Notes 3
General Plan 4
Profile - Route 108 5
Typical Sections 6
Cross Sections - Route 108 7-11
Abutment Removal Limits 12
Abutment Reconstruction 13
Bearing Details 14
Framing Plan & Girder Elevation 15
Structural Steel Details 16
Superstructure Plan 17
Superstructure Details 18
Transverse Section 19
Expansion Device - Heavy Duty Joint 20-21
Reinforcing Steel Schedule 22
Lighting Details 23
Traffic Detour Signing 24
Detour Details 25
Construction Signing 26
Traffic Sign Summary 27
Detour Plan 28
Detour Layout 29
Profile - Detour 30
Cross Sections - Detour Road 31-35
Right-of-Way Maps 36-37

UTILITIES

Central Maine Power
Fairpoint Communications
Time Warner Cable
Oxford Networks
Maine Fiber
Rumford-Mexico Water District
Rumford Sewer

MAINTENANCE OF TRAFFIC

Bridge closed: Truck traffic to be detoured through Mexico via Veterans St. and Route 2; remaining traffic to be detoured on a temporary road just east of the bridge and across the Hartford St. Bridge.

PROJECT LOCATION:	State Route 108, just east of the intersection of Canal Street and Route 108 (Bridge Street) 44° 32' 40" N 70° 32' 39" W
PROGRAM AREA:	Bridge
OUTLINE OF WORK:	Bridge deck replacement, Abutment bearings replacement, Pier No. 2 bearings masonry plate replacement, and associated minor approach work

WIN 19058.00

STP-1905(800)

PROJECT INFORMATION	
PROGRAM	BRIDGE
PROJECT MANAGER	A. LATHE
DESIGNER	J. OLUND
CONSULTANT	T.Y. LIN INTERNATIONAL
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	DATE

RUMFORD
UPPER CANAL BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 37

Filename:\00\HIGHWAY\MSTA\001_Title.dgn Division: HIGHWAY Username: Date:11/23/2015

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	Removing Existing Superstructure Property of Contractor (310 CY)	1	LS
202.12	Removing Existing Structural Concrete	6	CY
202.202	Removing Pavement Surface	420	SY
203.20	Common Excavation	310	CY
304.10	Aggregate Subbase Course - Gravel	110	CY
304.15	Aggregate Base Course - Type B	140	CY
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	8	T
403.2081	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Polymer Modified)	67	T
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands & Incidentals)	34	T
403.211	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)	10	T
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Course)	105	T
409.15	Bituminous Tack Coat, Applied	50	Gal
461.131	Temporary Pavement	265	T
502.21	Structural Concrete, Abutments and Retaining Walls	10	CY
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (395 CY)	1	LS
502.565	Concrete Fill	6	CY
503.14	Epoxy-Coated Reinforcing Steel, Fabricated and Delivered	48,800	LB
503.15	Epoxy-Coated Reinforcing Steel, Placing	48,800	LB
504.70	Structural Steel Fabricated and Delivered (6,275 LB)	1	LS
504.71	Structural Steel Erection (6,275 LB)	1	LS
505.08	Shear Connectors (3,948 EA)	1	LS
506.142	Field Paint Existing Structural Steel (6,275 LB)	1	LS
506.17	Surface Preparation of Existing Structural Steel (6,275 LB)	1	LS
506.18	Containment and Pollution Control Measures (6,275 LB)	1	LS
506.191	Disposal of Special Waste or Hazardous Waste (6,275 LB)	1	LS
506.9103	Galvanizing (6,275 LB)	1	LS
507.0831	Steel Bridge Railing, 4 bar (515 LF)	1	LS
510.10	Special Detour, 56 foot Roadway With Vehicular and Pedestrian Traffic	1	LS
	Not Separated		
514.06	Curing Box for Concrete Cylinders	1	EA
515.21	Protective Coating for Concrete Surfaces (1,450 SY)	1	LS
518.50	Repair of Upward Facing Surfaces - to Reinforcing Steel	10	SF
518.60	Repair of Vertical Surfaces < 8 inches	10	SF
520.245	Bridge Joint Modification Type 5	2	EA
523.31	Remove, Refurbish, & Reset Expansion Bearing	1	LS
523.52	Bearing Installation	14	EA
523.5304	Steel Bearings, Expansion, Rocker	14	EA
524.301	Temporary Structural Support	1	LS
526.301	Temporary Concrete Barrier (420 LF)	1	LS
526.34	Permanent Concrete Transition Barrier	4	EA
527.34	Work Zone Crash Cushions	4	Unit
530.30	Glass Fiber Reinforced Polymer, Fabricated and Delivered	74,800	LF
530.31	Glass Fiber Reinforced Polymer, Placing	74,800	LF
606.1721	Bridge Transition - Type 1	4	EA
606.23	Guardrail Type 3c - Single Rail	220	LF
606.232	Guardrail Type 3c - Over 15 ft Radius	57	LF
606.259	Anchorage Assembly	1	EA
606.265	Terminal End - Single Rail - Galvanized Steel	1	EA
606.353	Reflectorized Flexible Guardrail Marker	6	EA
606.79	Guardrail 350 Flared Terminal	2	EA
608.26	Curb Ramp Detectable Warning Field	13	SF
609.238	Terminal Curb Type 1 - 8 foot	2	EA
609.2381	Terminal Curb Type 1 - 8 foot - Circular	1	EA
609.38	Reset Curb Type 1	260	LF
610.08	Plain Riprap	19	CY
613.319	Erosion Control Blanket	44	SY
615.07	Loam	13	CY
618.14	Seeding Method Number 2	1	Unit
618.141	Seeding Method Number 3	1	Unit
619.1201	Mulch	2	Unit
619.1401	Erosion Control Mix	5	CY

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
626.35	Controller Cabinet Foundation	1	EA
627.51	6" Temporary Pavement Tape, Yellow or White	1,220	LF
627.733	4" White of Yellow Painted Pavement Marking Line	1,300	LF
627.77	Removing Existing Pavement Marking	170	SF
627.78	Temporary Pavement Marking Line, White or Yellow	730	LF
629.05	Hand Labor, Straight Time	20	HR
631.10	Air Compressor (including operator)	10	HR
631.11	Air Tool (including operator)	10	HR
631.12	All Purpose Excavator (including operator)	10	HR
631.172	Truck-Large (including operator)	20	HR
631.22	Front End Loader (including operator)	20	HR
634.160	Highway Lighting	1	LS
634.711	Ornamental Light Fabricated and Delivered	4	EA
634.712	Ornamental Light, Install Only	4	EA
639.18	Field Office, Type A	1	EA
645.1061	Relocate Existing Sign Assembly and Post	7	EA
652.312	Type III Barricade	1	EA
652.33	Drum	20	EA
652.34	Cone	20	EA
652.35	Construction Signs	745	SF
652.36	Maintenance of Traffic Control Devices	210	CD
652.38	Flaggers	600	HR
652.41	Portable-Changeable Message Sign	3	EA
656.75	Temporary Soil Erosion and Water Pollution Control	1	LS
659.10	Mobilization	1	LS

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER		HEC	BY	DATE
DESIGN-DETAILED	BLT		BLT	10/2015
CHECKED-REVIEWED	JKO		JKO	10/2015
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 37

Filename: ...\BRIDGE\MSTA\002_Quantities.dgn Division: HIGHWAY Username: Date:12/11/2015

GENERAL NOTES

1. All utility facilities shall be adjusted by the respective utilities unless otherwise noted. The utilities involved in this contract are as follows:

   - Fairpoint Communications
   - Central Maine Power
   - Time Warner Cable
   - Oxford Networks
   - Maine Fiber
   - Rumford-Mexico Water District
   - Rumford Sewer

2. The contractor shall be responsible for costs associated with coordination with the utility companies, if needed.

3. For easements, construction limits, and right-of-way lines, refer to Right of Way Map.

4. During construction, the bridge will be closed to traffic for the time period specified in the Special Provisions.

5. Place a 24 inch wide strip if Erosion Control Blanket on the side slopes along the top of riprap and behind the wingwalls.

6. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to related Contract items.

7. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

8. Unless otherwise noted, Seeding Method No. 2 shall be utilized on all non-guardrail slopes. Seeding Method No. 3 shall be utilized on all guardrail slopes.

9. Do not excavate for Aggregate Base Course where existing material is suitable as determined by the Resident.

10. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.

11. No separate payment for superintendent or foreman will be made for the supervision of equipment being paid for under the equipment rental items.

12. Any damage to the roadway, sideslopes, existing structure to remain, or other on-site infrastructure caused by the Contractor's Equipment, Personnel, or Operation shall be repaired to the satisfaction of the Resident. All work, equipment, and materials required to make repairs shall be at the Contractor's expense.

13. All work shall be done in accordance with the Maine Department of Transportation's (Maine DOT's) Best Management Practices for Erosion Control & Sediment Control, February, 2008.

14. Temporary Erosion control measures shall be maintained as specified in the Soil Erosion and Water Pollution Control Plan. Payment will be made under 656.75 'Temporary Soil Erosion and Water Control, Lump sum.'

15. Guardrail posts as shown in the Standard Details shall be modified from the indicated length of 6 feet to a length of 7 feet, with an embedment of 4.5 feet. Payment will be considered incidental to the guardrail pay items.

16. A NCHRP 350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

17. Two Reflectorized Flexible Guardrail Markers (Item 606.353) shall be installed at each guardrail end.

18. All existing guardrail shall be removed and shall become the property of the contractor. Removal and disposal shall be considered incidental to the guardrail items.

19. Holes created by Guardrail removal will be filled and compacted with approved materials as directed by the Resident. Payment to be considered incidental to the guardrail items.

20. Connections for proposed guardrail to existing guardrail will be considered incidental to 606 Items.

21. Curb Ramp Detectable Warning Fields shall be installed at the ends of all pedestrian ramps.

22. The Contractor shall submit a Bridge Demolition Plan to the Resident at least 10 business days prior to the start of demolition work. The plan shall outline the methods and equipment to be used to remove and dispose of the existing concrete deck and wearing surface, bridge railing, existing lighting, portions of the abutment backwalls, expansion joints, portions of the steel superstructure, and a subset of existing bearings. No work related to the removal of these items shall be undertaken by the Contractor until the Resident has reviewed the Bridge Demolition Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting and finalizing the Demolition Plan will be considered incidental to the bridge removal pay item.

23. Identified portions of the existing bridge shall be removed by and become the property of the Contractor. The steel portions of the existing bridge are coated with a lead-based paint system. The contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Once the portions of the existing bridge are removed, the Contractor is solely responsible for the care, custody and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling or disposal of the bridge component including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.

24. Riprap installed for slope protection shall be placed on a Non-Woven Erosion Control Geotextile. Payment for Erosion Control Geotextile shall be incidental to Riprap.

25. Protective Coating for Concrete Surfaces shall be applied to the following areas:
    - All exposed surfaces of concrete curbs, sidewalks, and light pole pedestals.
    - Fascia down to drip notch.
    - All exposed surfaces of Concrete Transition Barriers.
    - Concrete wearing surfaces.
    - Top of abutment backwalls and to one foot below the top of backwalls on the back side.

26. All dimensions shown in the plans are horizontal or vertical at 45° F, unless noted otherwise.

27. Existing Abutments shall be repaired in accordance with Section 518 of the Standard Specifications and as directed by the Resident.

28. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the provided estimated quantities, except as follows:

    a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

    b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

    c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

29. Proposed connection contact surfaces on the existing steel girders shall be cleaned according to the requirements of Special Provision 506, Lead Abatement and Surface Preparation.

30. All debris shall be removed from the bridge bearings and bearing seat areas. This work shall be considered incidental to the related 506 Contract items.

31. Details and dimensions of the existing bridge provided herein are based upon existing design plans and existing shop drawings; no field survey or verification measurements were obtained in preparation of these details. The Contractor is responsible for field verifying all dimensions prior to fabrication.

32. Project information referred to below may be accessed at the following MaineDOT web address:
    http://www.maine.gov/mdot/contractors/*projecttbl

33. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	JRH	JRH	9/2015
CHECKED-REVIEWED	JKO	HEC	9/2015
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

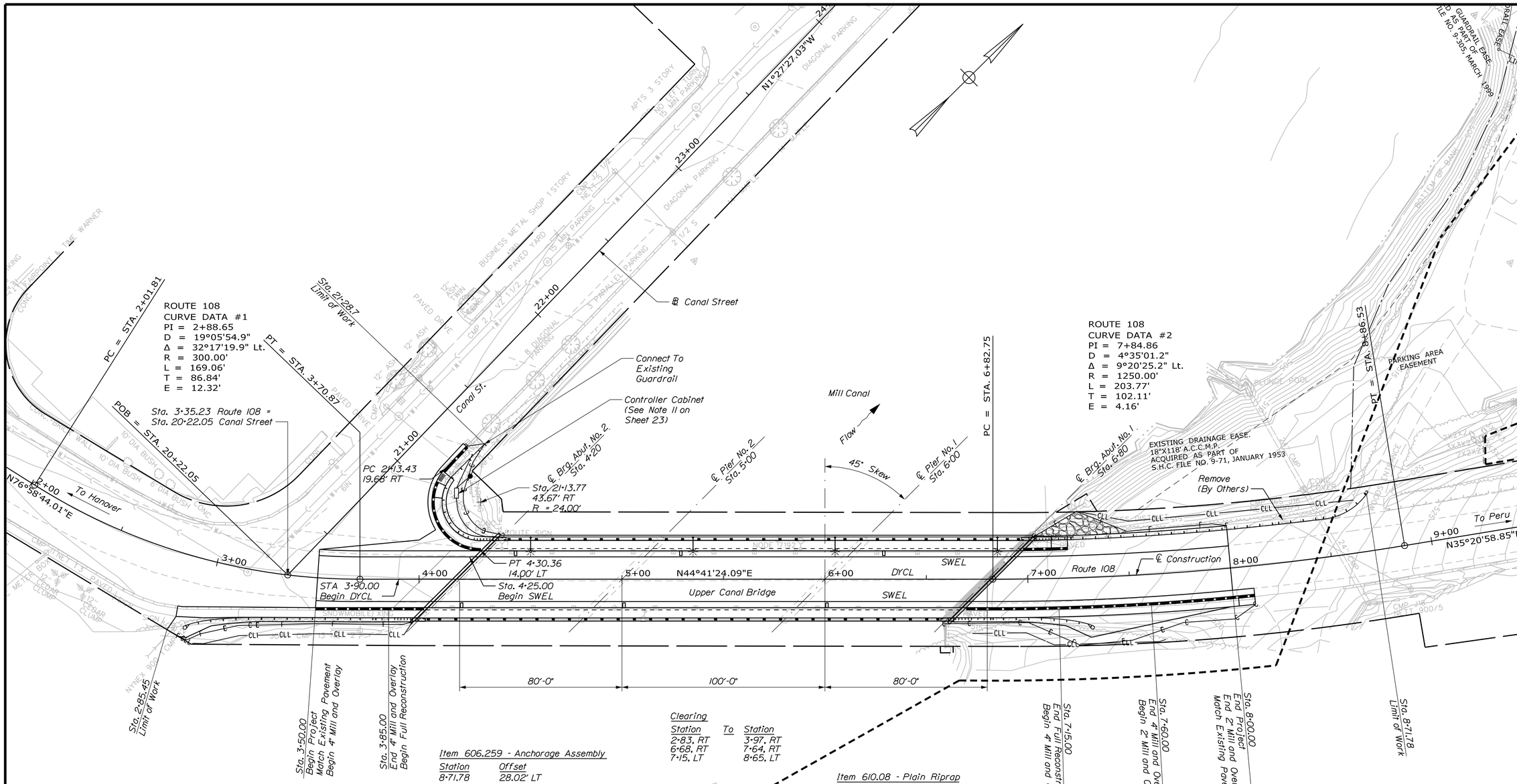
GENERAL NOTES

SHEET NUMBER

3

OF 37

Filename: ...\MSTA\003_General_Notes 1.dgn Division: HIGHWAY Username: Date:11/19/2015



Clearing

Station	To	Station
2+83, RT		3+97, RT
6+68, RT		7+64, RT
7+15, LT		8+65, LT

Item 606.259 - Anchorage Assembly

Station	Offset
8+71.78	28.02' LT

Item 606.265 - Terminal End - Single Rail - Galvanized Steel

Station	Offset
8+71.78	28.02' LT

Item 606.79 - Guardrail 350 Flared Terminal

Station	Offset
3+25.59	22.49' RT
6+93.95	19.00' RT

Item 610.08 - Plain Riprap

Station	To	Station
7+04, LT		7+50, LT

Item 606.172l - Bridge Transition - Type 1

Station	Offset	To	Station	Offset
3+78.63	19.00' RT		3+99.11	19.00' RT
4+19.15	22.66' LT		4+38.86	19.00' LT (19.00' Radius)
6+61.14	19.00' RT		6+82.75	19.00' RT
7+01.17	18.87' LT		7+21.96	19.00' LT

Item 606.23 - Guardrail Type 3c - Single Rail

Station	Offset	To	Station	Offset	Length
3+25.59	22.49' RT		3+70.87	19.00' RT	48.48'
3+70.87	19.00' RT		3+78.63	19.00' RT	7.77'
6+82.75	19.00' RT		6+93.95	19.00' RT	12.50'
7+21.96	19.00' LT		8+26.31	19.00' LT	102.76'
8+26.31	19.00' LT		8+48.89	18.80' LT	22.24'
21+12.62	24.71' RT		21+35.7	25.2' RT	23.0'

Item 606.232 - Guardrail Type 3c - Over 15 ft Radius

Station	Offset	To	Station	Offset	Length	Radius
8+48.89	18.80' LT		8+71.78	28.02' LT	25.00'	30.00'
4+19.15	22.66' LT		21+12.62	24.71' RT	31.25'	19.00'

Item 609.38 - Reset Curb Type 1

Station	Offset	To	Station	Offset	Length
3+50.00	14.77' RT		3+70.82	14.00' RT	21.88'
3+70.82	14.00' RT		4+02.16	14.00' RT	31.59'
6+69.54	14.00' RT		8+02.59	14.00' RT	134.40'
6+97.79	14.00' LT		7+11.91	14.00' LT	13.96'
20+99.00	24.76' RT		4+30.47	14.00' LT	40.15'
21+12.00	19.74' RT		21+28.7	19.5' RT	16.7'

Item 609.238 - Terminal Curb Type 1 - 8'

Station	Offset	To	Station	Offset
7+11.91	14.00' LT		7+20.00	14.00' LT
8+02.59	14.00' RT		8+10.50	14.00' RT

Item 609.238l - Terminal Curb Type 1 - 8' - Circular

Station	Offset	To	Station	Offset	Radius
20+99.00	24.76' RT		21+06.00	20.97' RT	24.00'

Item 618.14 - Seeding Method Number 2

Station	To	Station
7+30, RT		8+11, RT
21+12, RT		21+36, RT

Item 618.14l - Seeding Method Number 3

Station	To	Station
2+91, RT		3+97, RT
6+59, RT		7+30, RT
7+50, LT		8+00, LT
21+00, RT		21+36, RT

PLAN

25 0 25 50
Scale of Feet

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	HEC	
DESIGN-DETAILED	JRH	9/2015
CHECKED-REVIEWED	HEC	9/2015
DESIGN2-DETAILED2	TSK	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

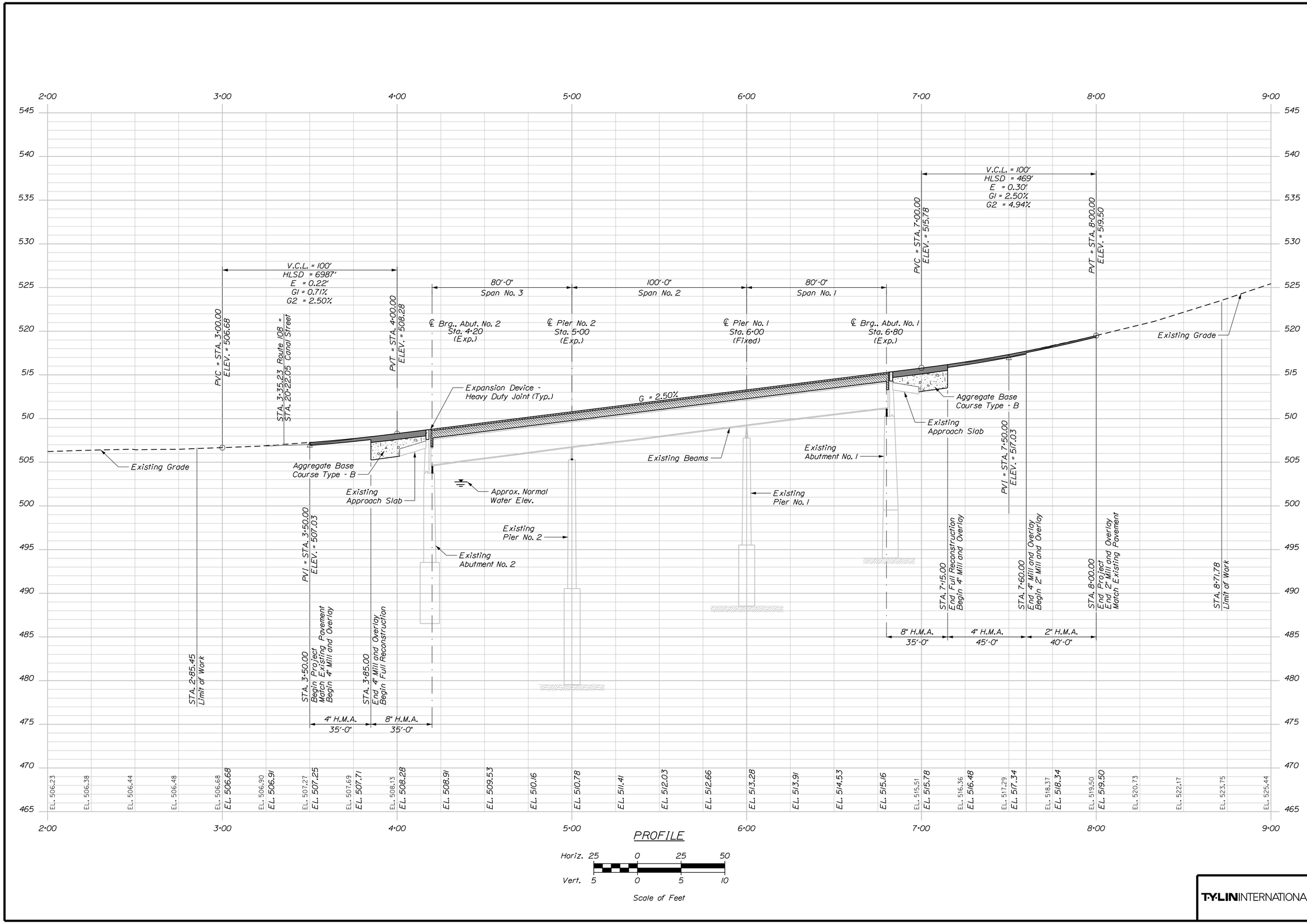
GENERAL PLAN

SHEET NUMBER

4

OF 37

Filename: ...\HIGHWAY\MSTA\004_HDPlan_01.dgn Division: HIGHWAY Username: Date:11/13/2015



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER		BY	DATE
DESIGN-DETAILED	HEC	MRP	2/2015
CHECKED-REVIEWED	REM	HEC	9/2015
DESIGN2-DETAILED2	JRH		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

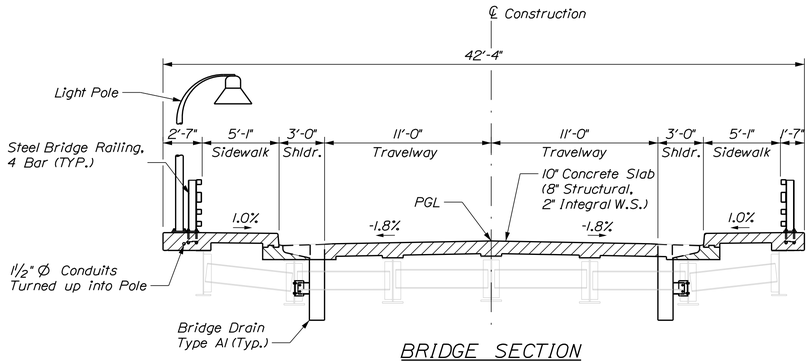
PROFILE - ROUTE 108

T·Y·LIN INTERNATIONAL

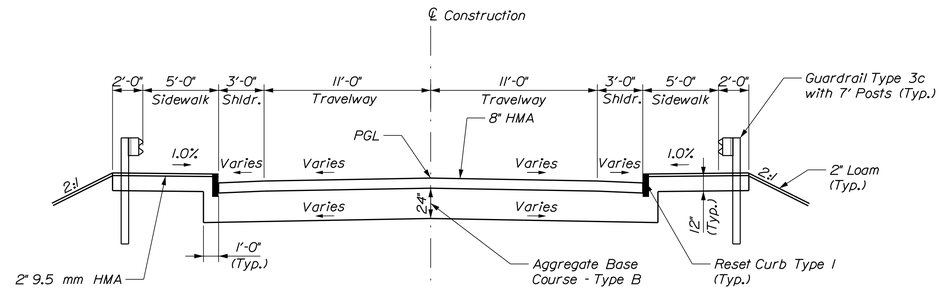
SHEET NUMBER

5

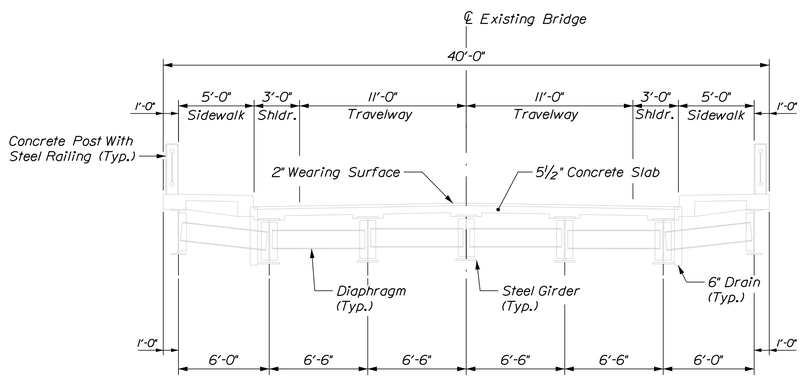
OF 37



BRIDGE SECTION



FULL RECONSTRUCTION APPROACH SECTION



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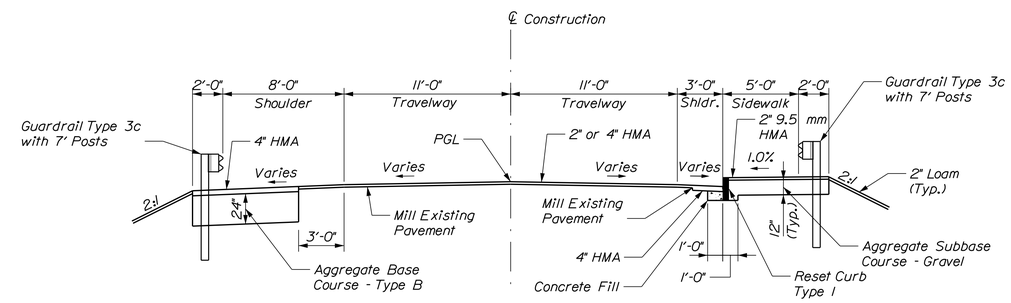
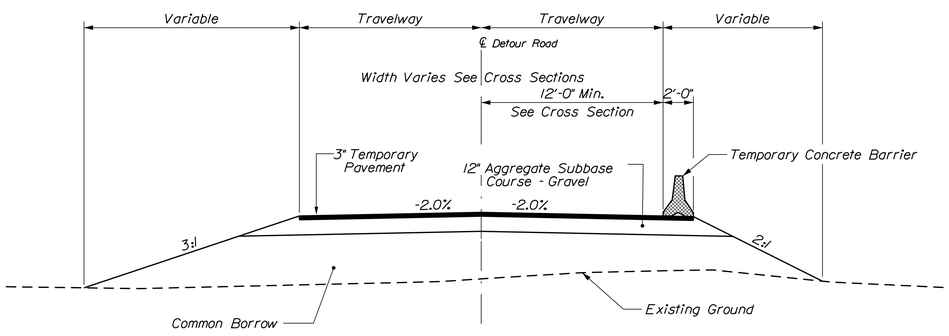
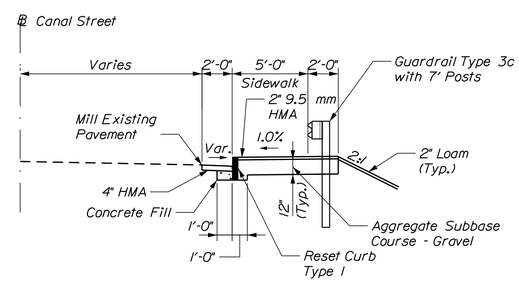


MILL AND OVERLAY APPROACH SECTION



DETOUR ROAD

See Cross Sections For More Details



CANAL STREET SIDEWALK SECTION

TYLIN INTERNATIONAL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	REM	MRP	2/2015
CHECKED-REVIEWED	JRH	HEC	9/2015
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS: 1			
REVISIONS: 2			
REVISIONS: 3			
REVISIONS: 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

TYPICAL SECTIONS

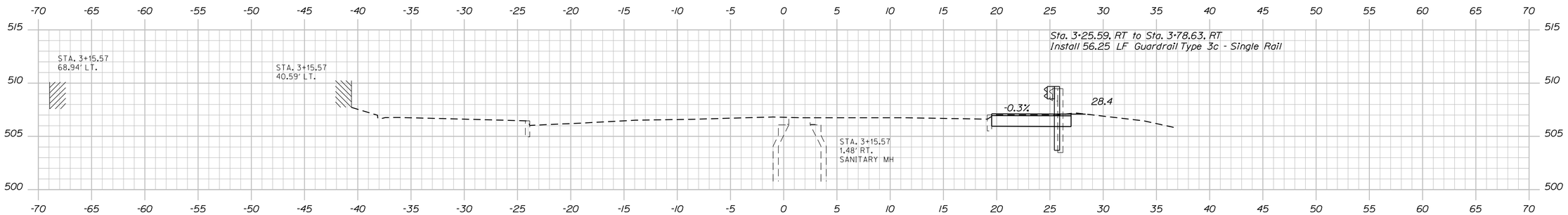
SHEET NUMBER

6

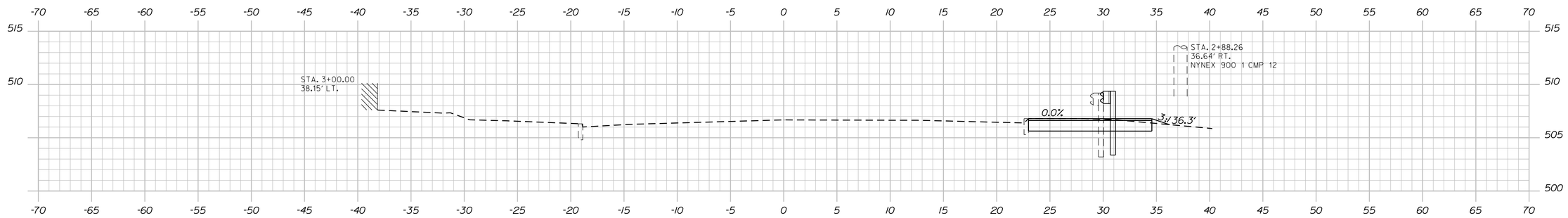
OF 37

Filename: ...\HIGHWAY\MSTA\006_typicals.dgn Division: HIGHWAY Username: Date:12/11/2015

Sta. 3+35.23 Route 108 =
Sta. 20+22.05 Canal Street



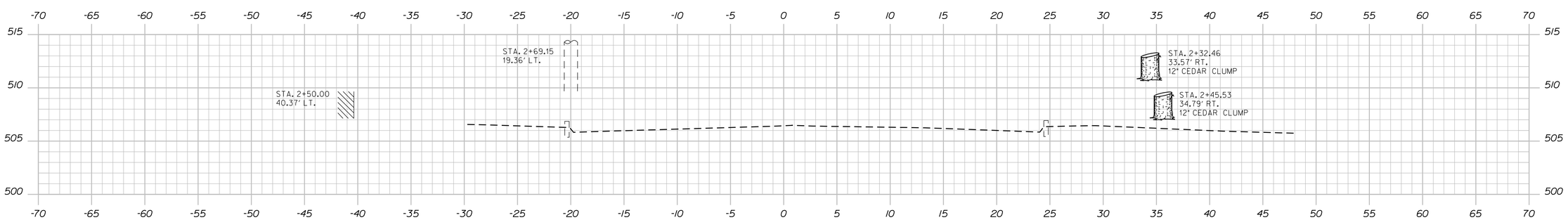
3+15.57



3+00.00

Sta. 2+85.45
Limit of Work

Sta. 3+25.59, RT
Install Guardrail 350 Flared Terminal
Install Reflectorized Flexible Guardrail Marker (2)



2+50.00

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN
19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	REM	HEC	1/2015
CHECKED-REVIEWED	JRH	MRP	9/2015
DESIGN2-DETAILED2		HEC	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

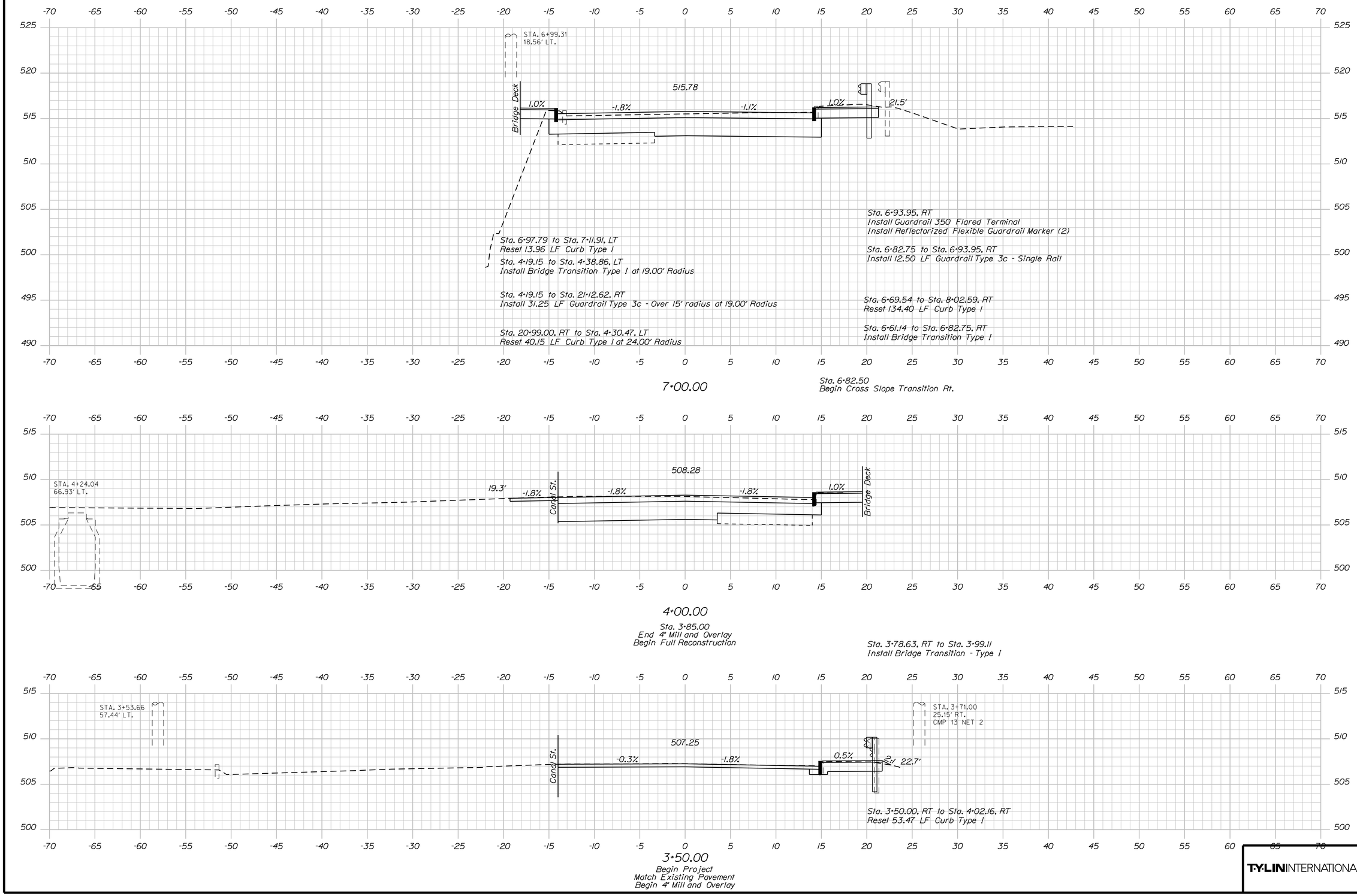
UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

CROSS SECTIONS - ROUTE 108

SHEET NUMBER
7
OF 37

Date:11/13/2015 Filename: ...\MSTA\007_Xsect_Route 108.dgn Division: HIGHWAY Username:

Sta. 2+50.00 to Sta. 3+15.57



TYLIN INTERNATIONAL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER				
DESIGN-DETAILED	HEC	BY	DATE	
CHECKED-REVIEWED	REM	MRP	1/2015	
DESIGN2-DETAILED2	REM	MRP	1/2015	
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

CROSS SECTIONS - ROUTE 108

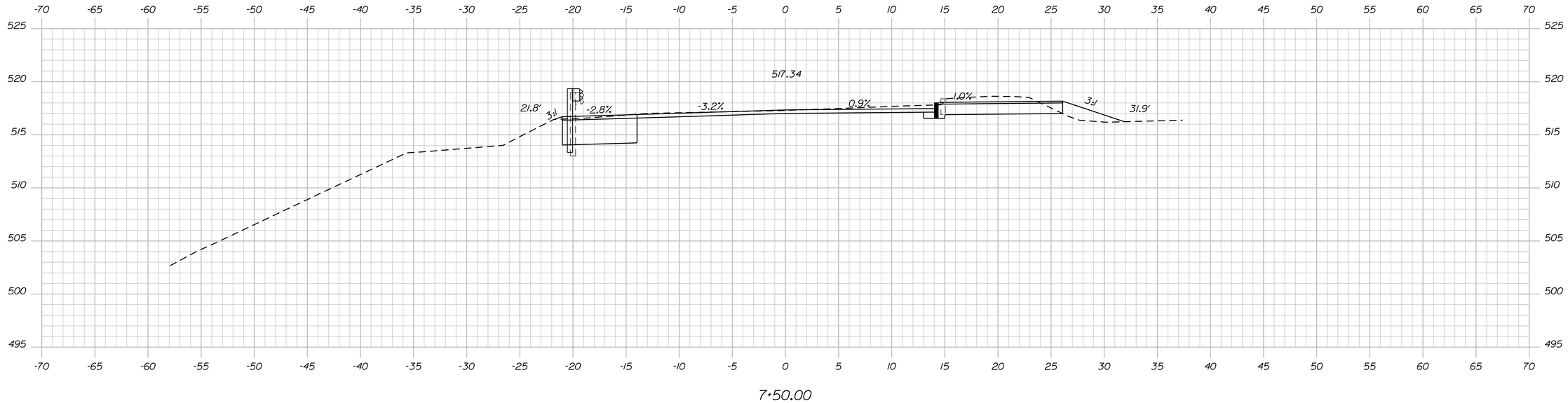
SHEET NUMBER

8

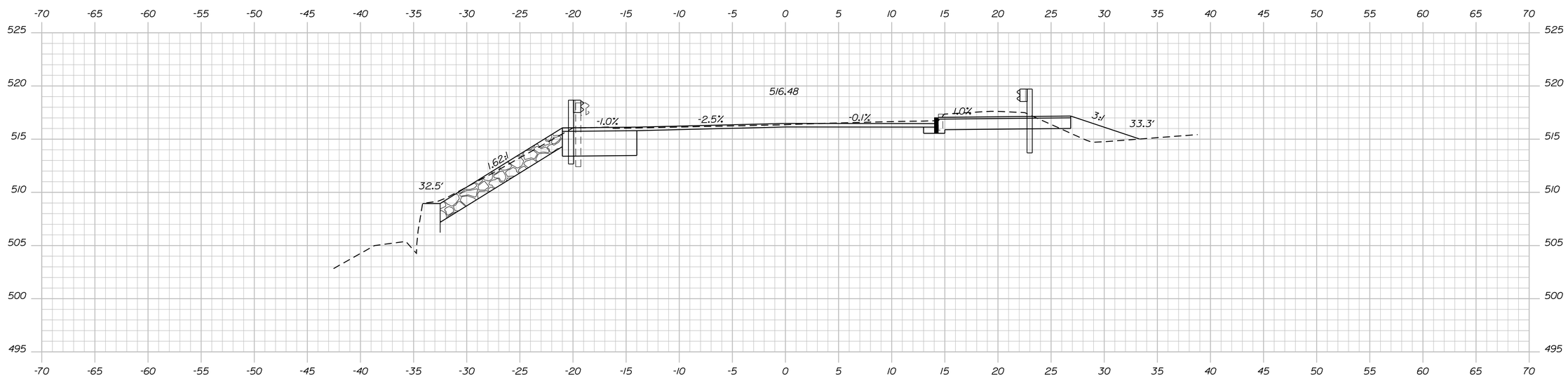
OF 37

Sta. 3+50.00 to Sta. 7+00.00

Filename: ...\MSTA\007_Xsect_Route 108.dgn Division: HIGHWAY Username: Date:11/13/2015



7+50.00



7+25.00

Sta. 7+21.96 to Sta. 8+48.89, LT
Install 125.00 LF Guardrail Type 3c - Single Rail

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	HEC		
DESIGN-DETAILED	REM	MRP	1/2015
CHECKED-REVIEWED	JRH	HEC	9/2015
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

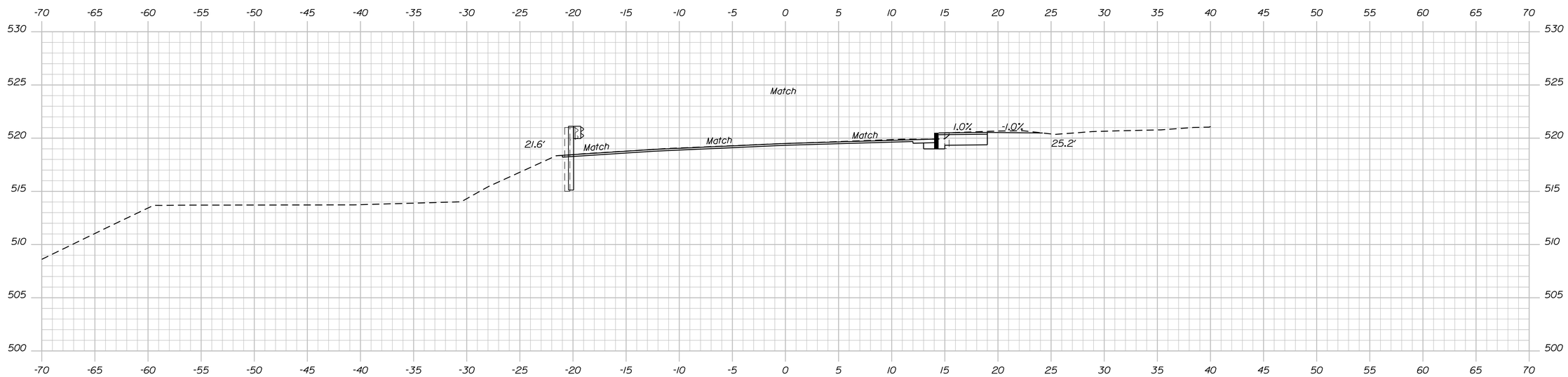
CROSS SECTIONS - ROUTE 108

SHEET NUMBER
9
OF 37

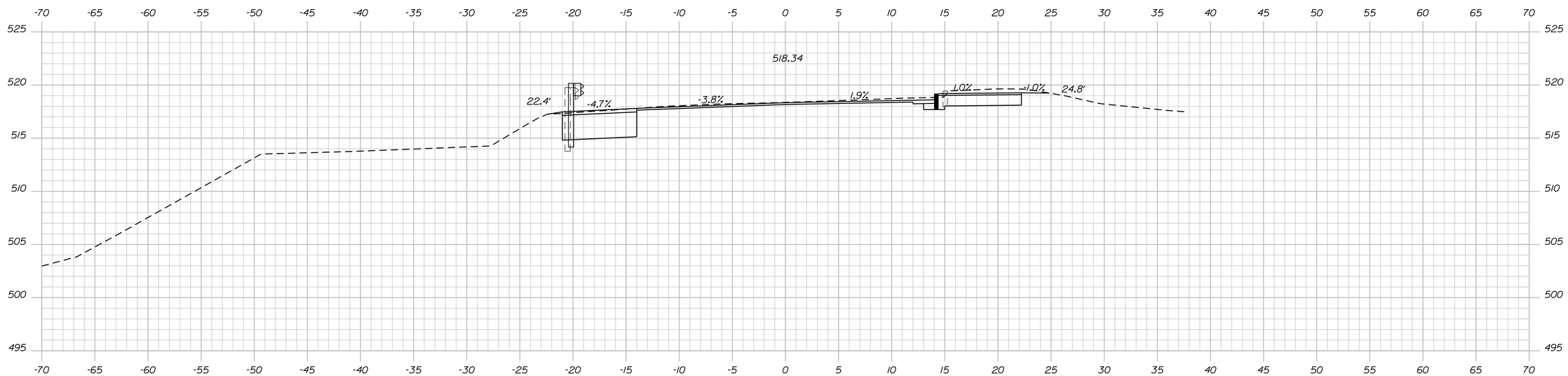
Sta. 7+25.00 to Sta. 7+50.00

Date:11/13/2015 Username: Division: HIGHWAY Filename: ...\MSTA\007_Xsect_Route 108.dgn

Sta. 8+02.59 to Sta. 8+10.50, RT
Install Terminal Curb Type I - 8'



8+00.00
Begin Project
End 2" Mill and Overlay
Match Existing Pavement



7+75.00

Sta. 7+60.00
End 4" Mill and Overlay
Begin 2" Mill and Overlay

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STATE OF MAINE
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STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER				
DESIGN-DETAILED	REM	MRP	1/2015	
CHECKED-REVIEWED	JRH	HEC	9/2015	
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

CROSS SECTIONS - ROUTE 108

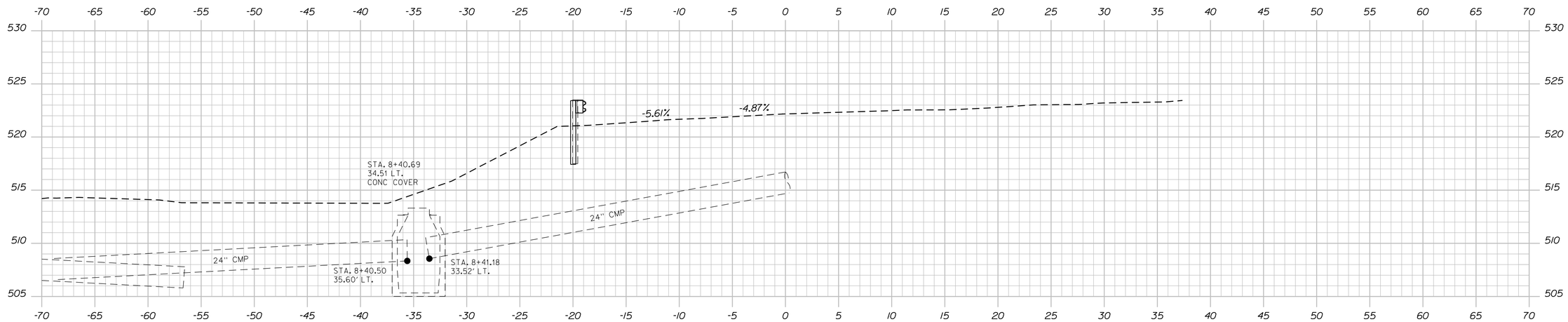
SHEET NUMBER
10
OF 37

Date:11/13/2015
Username:
Division: HIGHWAY
Filename: ...\MSTA\007_Xsect_Route 108.dgn

Sta. 7+75.00 to Sta. 8+00.00

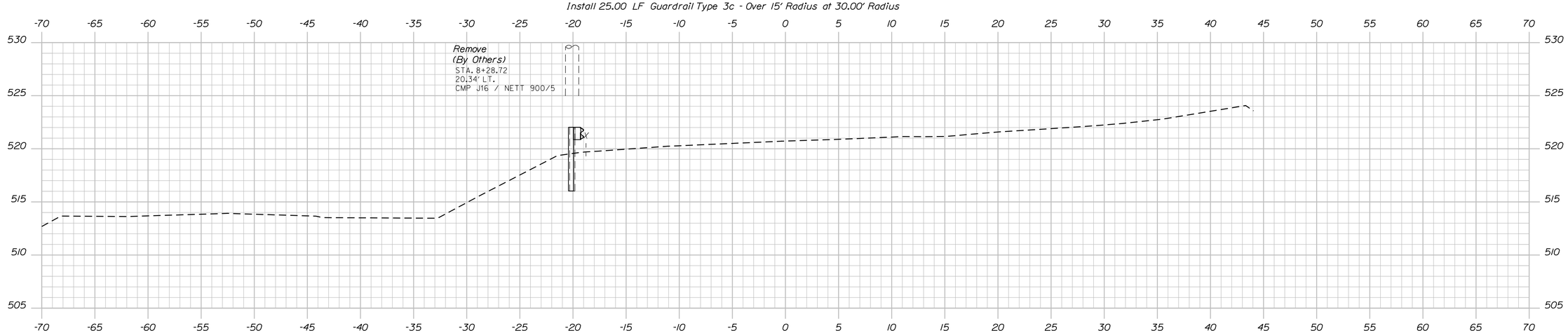
Sta. 8+71.78
Limit of Work

Sta. 8+71.78, LT
Install Anchorage Assembly
Install Terminal End - Single Rail - Galvanized Steel
Install Reflectorized Flexible Guardrail Marker (2)



8+50.00

Sta. 8+48.89 to Sta. 8+71.78, LT
Install 25.00 LF Guardrail Type 3c - Over 15' Radius at 30.00' Radius



8+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN
19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	REM	MRP	1/2015
CHECKED-REVIEWED	JRH	HEC	9/2015
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

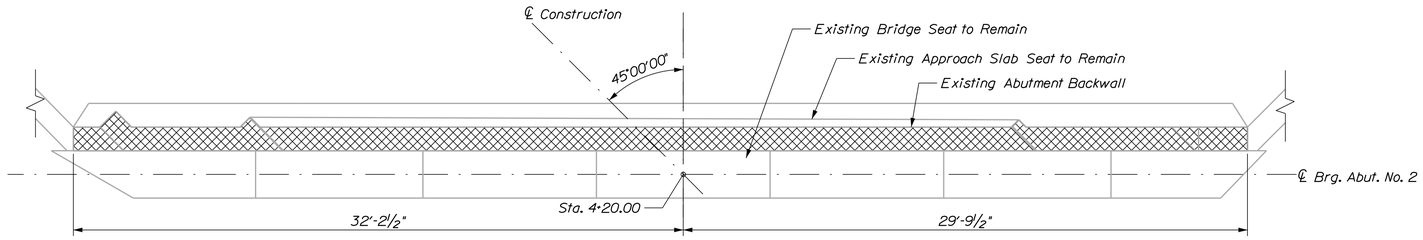
CROSS SECTIONS - ROUTE 108

SHEET NUMBER
11
OF 37

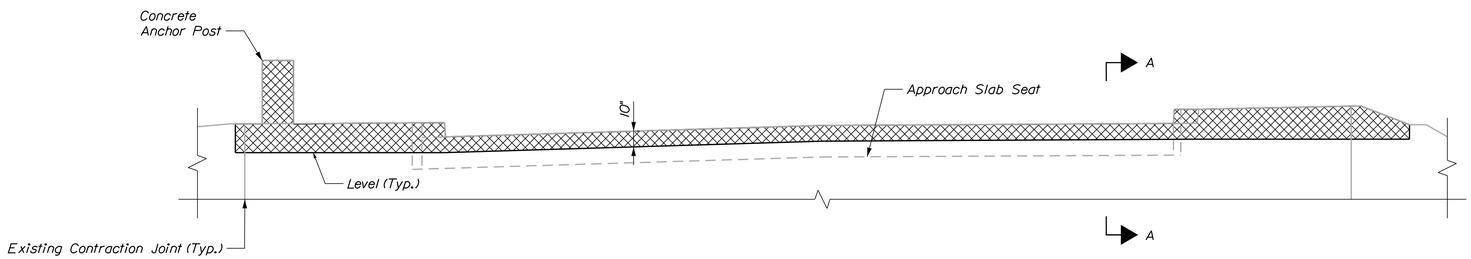
T·Y·LIN INTERNATIONAL

Sta. 8+25.00 to Sta. 8+50.00

Date:11/13/2015
Username:
Division: HIGHWAY
Filename: ...\MSTA\007_Xsect_Route 108.dgn



PLAN - ABUTMENT 2



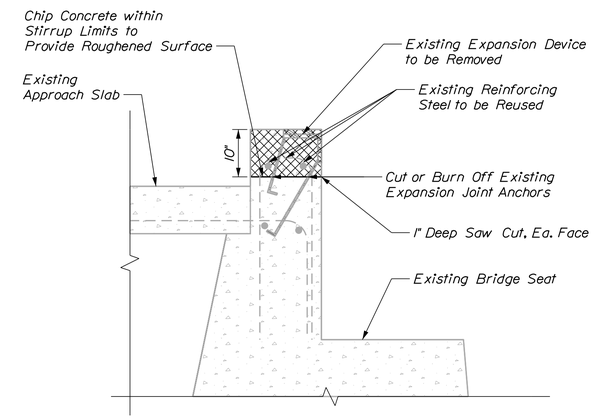
ELEVATION - ABUTMENT 2

NOTES:

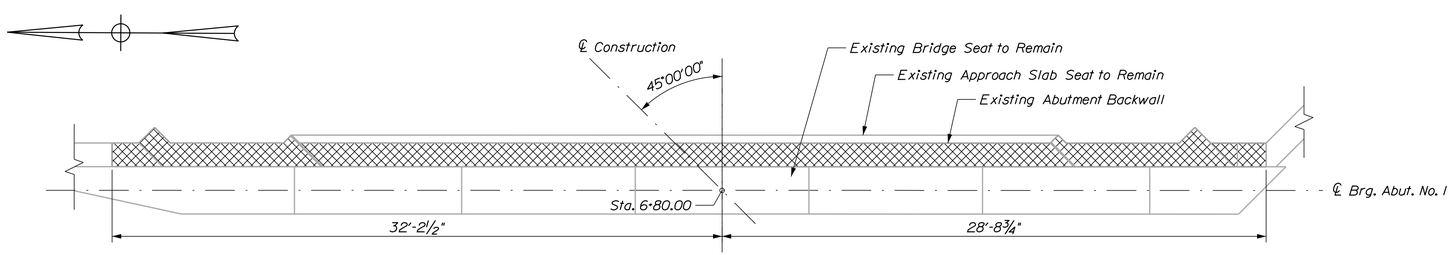
1. The existing abutment backwalls shall be revised to a suffient depth and width to allow for proper installation of the propsed Heavy Duty Joint. Removal limits shown are approximate and may be adusted by the Contractor with approval by the Resident.

2. Existing reinforcing steel shall be cleaned and reused. Payment shall be incidental to Item 202.12, "Removing Existing Structural Concrete".

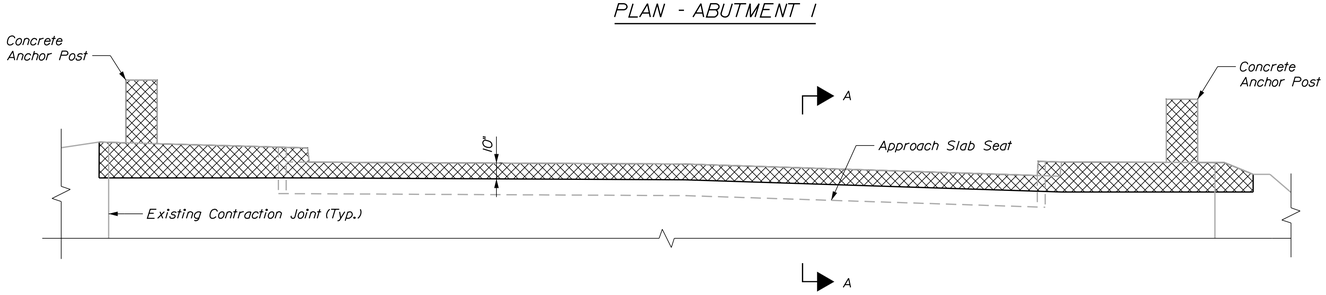
3. Payment for abutment concrete removal will be made under Item 202.12, "Removing Existing Structural Concrete".



SECTION A-A



PLAN - ABUTMENT 1



ELEVATION - ABUTMENT 1

LEGEND:

Concrete Removal Limits

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DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	BLT	JD	09/16/15
CHECKED-REVIEWED	JKO	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

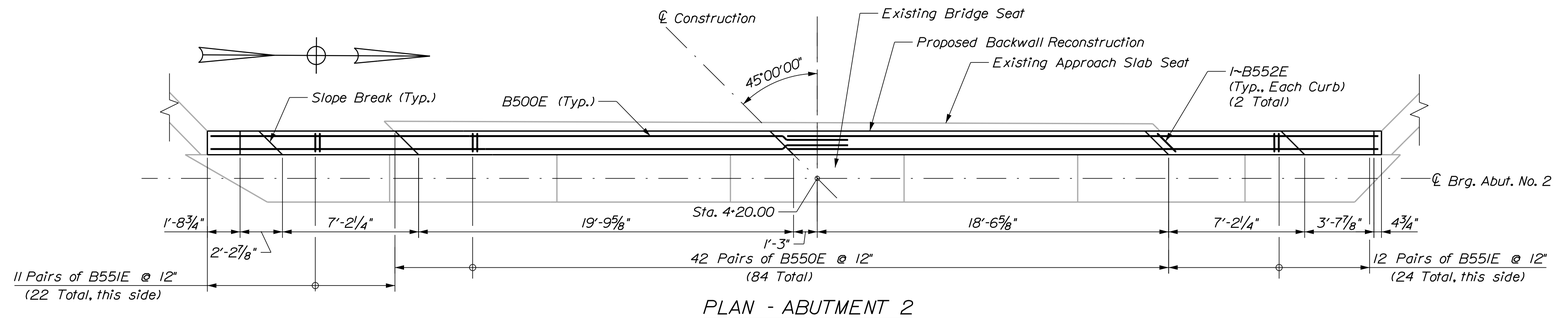
ABUTMENT REMOVAL LIMITS

SHEET NUMBER

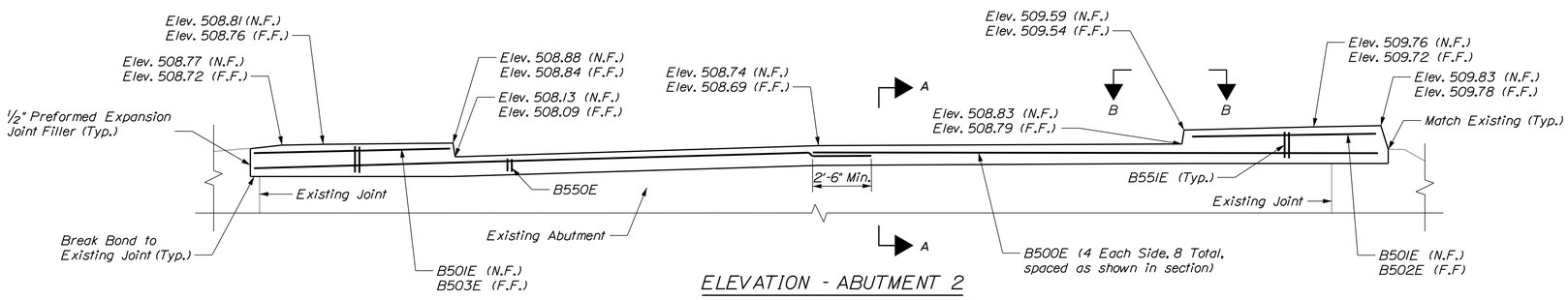
12

OF 37

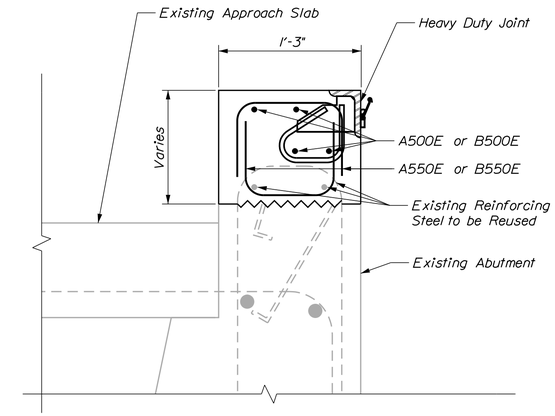
Filename: ...\BRIDGE\MSTA\012_Abut-Mod.dgn Division: HIGHWAY Username: Date:11/13/2015



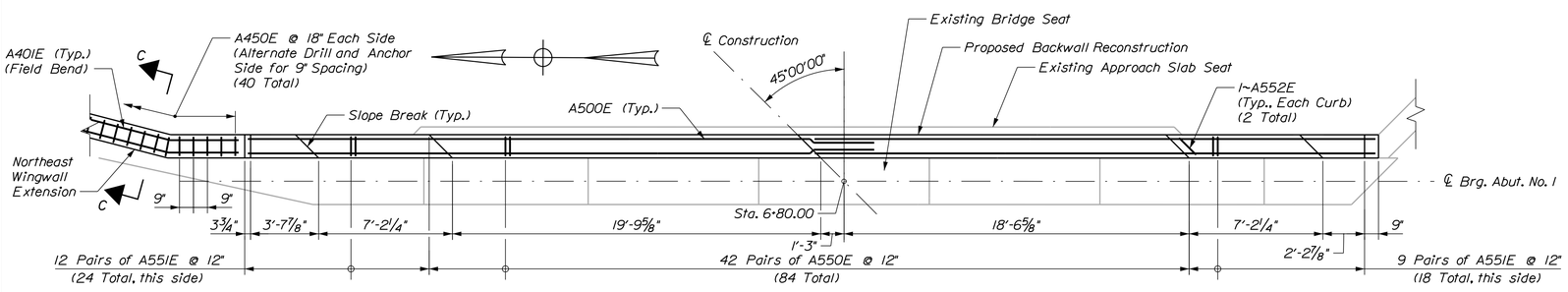
PLAN - ABUTMENT 2



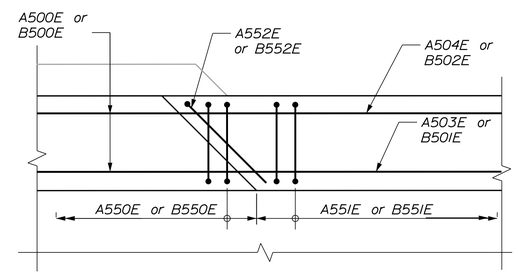
ELEVATION - ABUTMENT 2



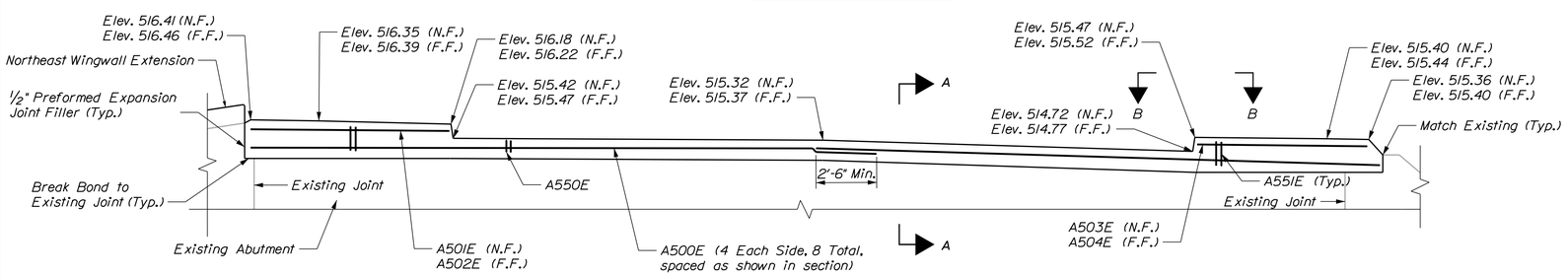
SECTION A-A



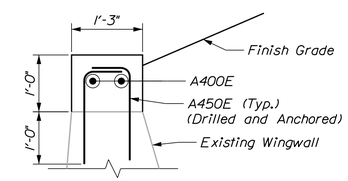
PLAN - ABUTMENT 1



VIEW B-B



ELEVATION - ABUTMENT 1



SECTION C-C

(Northeast Wingwall Extension)

NOTES:

1. Proposed reinforcing steel shall be tied to existing reinforcing steel.

2. See Expansion Device Heavy Duty Joint sheets for expansion device details.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE PLANS

BRIDGE #5619

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	BLT	JD	10/16/2015
CHECKED-REVIEWED	TJP	JKO	10/16/2015
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

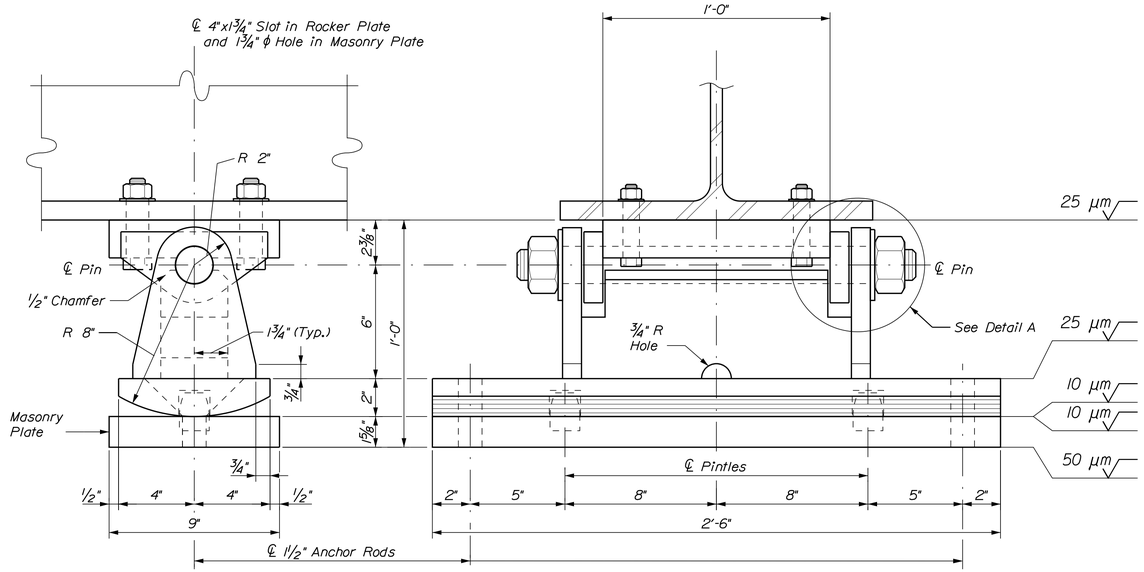
ABUTMENT RECONSTRUCTION

SHEET NUMBER

13

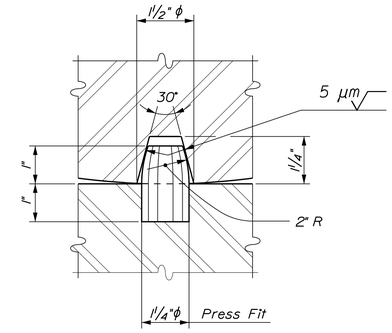
OF 37

Date:11/13/2015 Username: Division: HIGHWAY Filename: ...\BRIDGE\MSTA\013_Abut-Recon.dgn

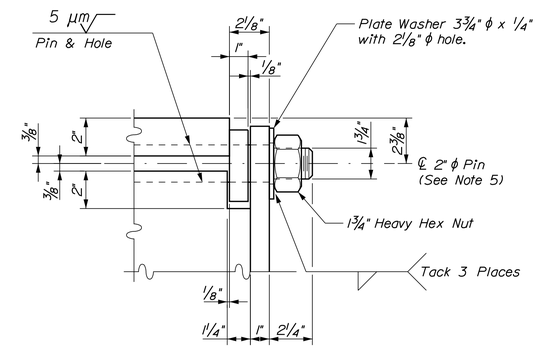


ABUTMENT 1 & 2 EXPANSION PEDESTAL

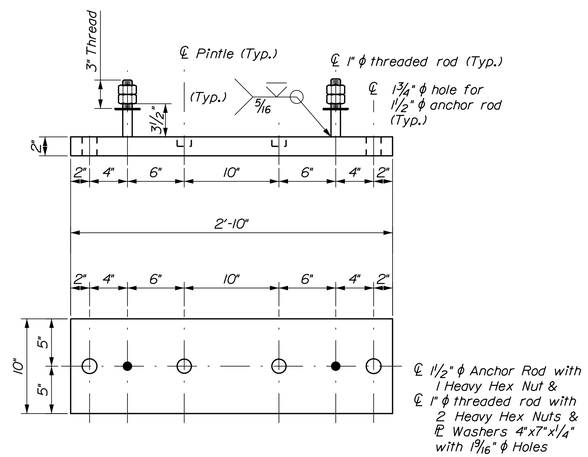
(14 Total Req'd)



PINTLE DETAILS

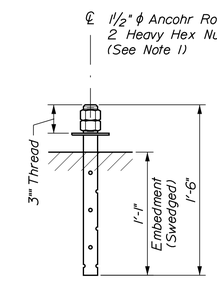


DETAIL A



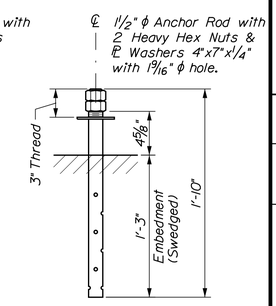
PIER 2 MASONRY PLATE DETAIL

(7 Total Req'd)



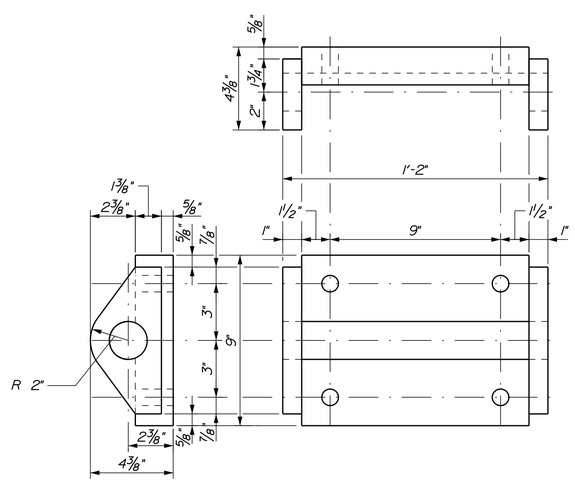
PIER 2 ANCHOR ROD DETAIL

(14 Total Req'd)



ABUTMENT ANCHOR ROD DETAIL

(28 Total Req'd)



SOLE PLATE DETAILS

NOTES:

1. Pier 2 bearings shall be rehabilitated in place. Existing anchor rods shall be cut flush with the bridge seat and existing masonry plates removed and replaced. New anchor rods shall be drilled and grouted in place and wrench-tightened to the new masonry plates. The Contractor shall replace any existing bolts that are removed during bearing rehabilitation or replacement with ⅞"ϕ A325, Type 1 High-Strength bolts and heavy hex nuts. Bearing Pins shall not be removed during rehabilitation efforts.

2. Existing expansion pedestals at Abutment No. 1 and Abutment No. 2 shall be removed and replaced, and existing bridge seats shall be cleaned. Existing anchor rods shall be cut flush with bridge seat. Payment for removal and installation of new bearings, including removal and installation of new anchor rods and cleaning the bridge seats, shall be made under Item 523.52 "Bearing Installation." Payment for fabrication and delivery of new bearings and anchor rods shall be made under Item 523.5304 "Steel Bearings, Expansion, Rocker."

3. Charpy V - notch tests are not required for steel used in bearing pedestals.

4. The diameter of the pin - holes and grooves shall be 2" with a tolerance of +0.01" and -0.00". The pin diameter shall be 2" with a tolernace of +0.00" and -0.01".

5. Threads located at the ends of the pin shall extend 2⅛" from end of pin, and shall terminate ⅛" from face of pedestal.

6. Upset the threads on the bearing pins and anchor bolts after assembly.

7. Fabricate bearing pedestals with ½" fillet welds unless otherwise indicated.

8. Bolted connection to girders shall be ⅞" ϕ A325, Type 1 High-Strength bolts and heavy hex nuts through existing bolt holes in girder and ¹⁵⁄₁₆" ϕ holes in sole plate.

9. Anchor rods shall be drilled and grouted into Abutments and Pier No. 2 to the depths indicated.

MATERIALS:

All steel (including anchor rods) ..... ASTM A709, Grade 50
Heavy hex cap screws ..... ASTM F568, Class 8.8
Heavy hex nuts for bearing pins and anchor bolts ... ASTM A563, Class 5

Stainless Steel alternate for bearing pins ..... ASTM A582, Type 416, Condition T

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	HEC		
DESIGN-DETAILED	BLT	BLT	09/16/15
CHECKED-REVIEWED	JKO	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

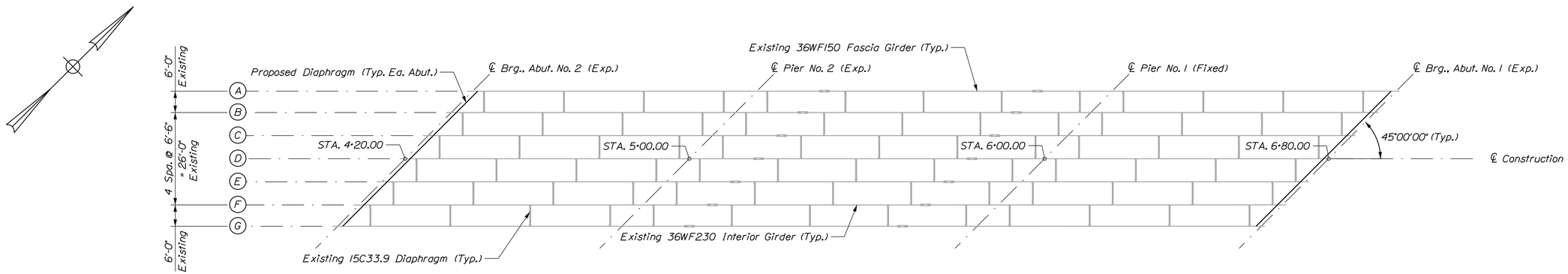
BEARING DETAILS

SHEET NUMBER

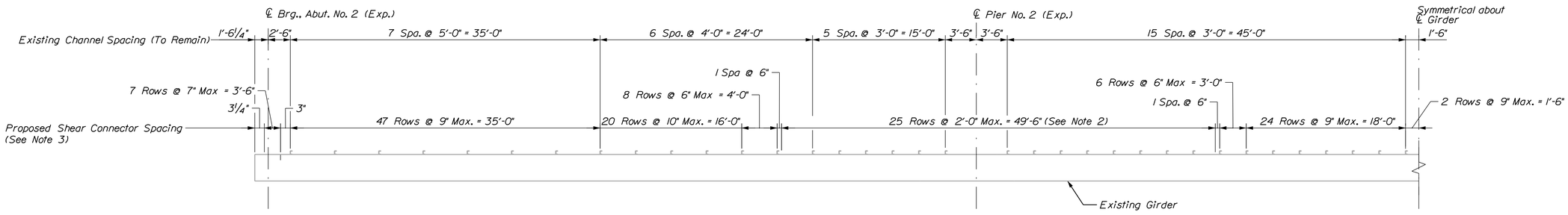
14

OF 37

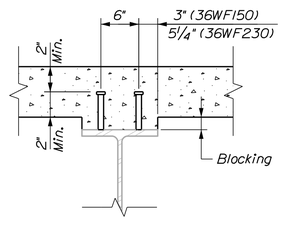
Filename: ...\MSTA\014_Brg-Details.dgn Division: HIGHWAY Username: Date:11/13/2015



FRAMING PLAN



GIRDER ELEVATION



SHEAR CONNECTOR DETAIL

NOTES:

1. See Standard Detail 505(01) for Shear Connector Details.

2. Shear Connectors over pier shall be adjusted to avoid installation on existing rivet heads or within 3 inches of an existing channel.

3. Adjust spacing of proposed Shear Connectors to maintain 3 inches clear of existing channel connectors. Final layout of Shear Connectors shall be approved by the Resident.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	BLT	JD	09/16/15
CHECKED-REVIEWED	TJP	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

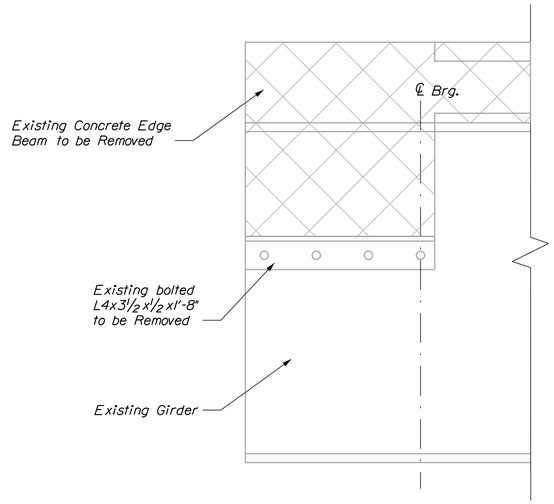
FRAMING PLAN & GIRDER ELEVATION

SHEET NUMBER

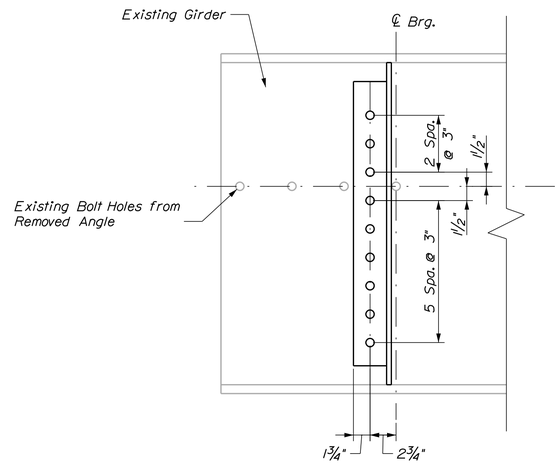
15

OF 37

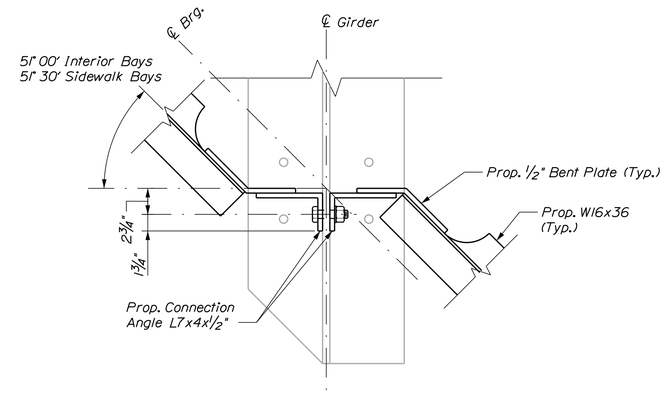
Filename: ...\MSTA\015_Framing-Plan.dgn Division: HIGHWAY Username: Date:11/13/2015



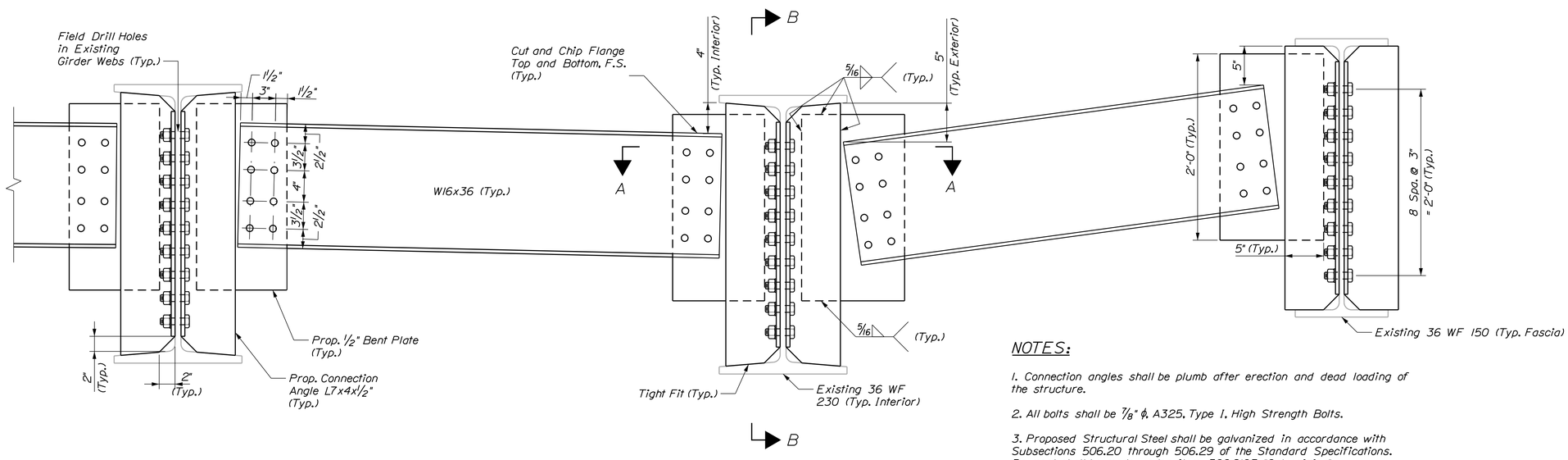
GIRDER END REMOVAL LIMITS



SECTION B-B



SECTION A-A



DIAPHRAGM

NOTES:

1. Connection angles shall be plumb after erection and dead loading of the structure.

2. All bolts shall be 7/8" ϕ, A325, Type 1, High Strength Bolts.

3. Proposed Structural Steel shall be galvanized in accordance with Subsections 506.20 through 506.29 of the Standard Specifications. Payment shall be made under Item 506.9103, "Galvanizing".

4. Shop drill 15/16" ϕ holes in diaphragms, bent plates and connection angles. Field drill 11/16" ϕ oversized holes in existing girders to match connection angles.

5. Contractor shall field measure existing girders to provide tight fit of connection angles against girder flanges.

6. Proposed steel contact surfaces shall be cleaned in accordance with Item 506.17, "Surface Preparation of Existing Structural Steel".

7. Payment for field measuring and field drilling shall be incidental to Item 504.71, "Structural Steel Erection".

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	BLT	JD	09/16/15
CHECKED-REVIEWED	TJP	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

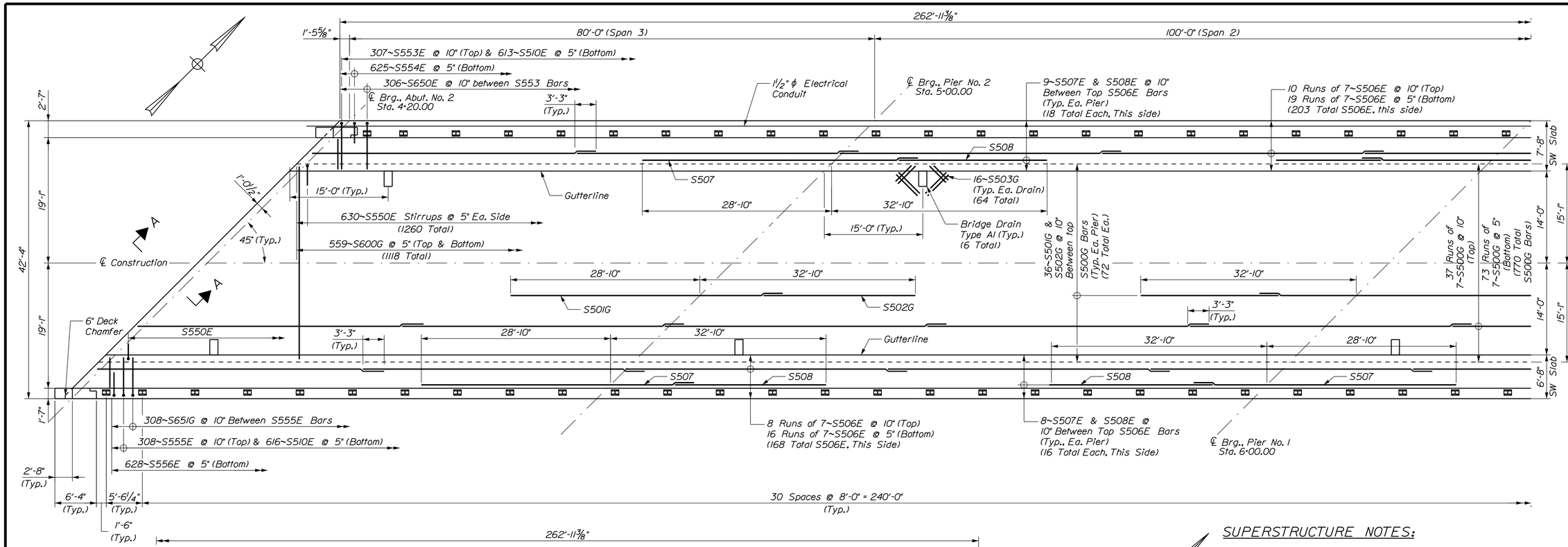
STRUCTURAL STEEL DETAILS

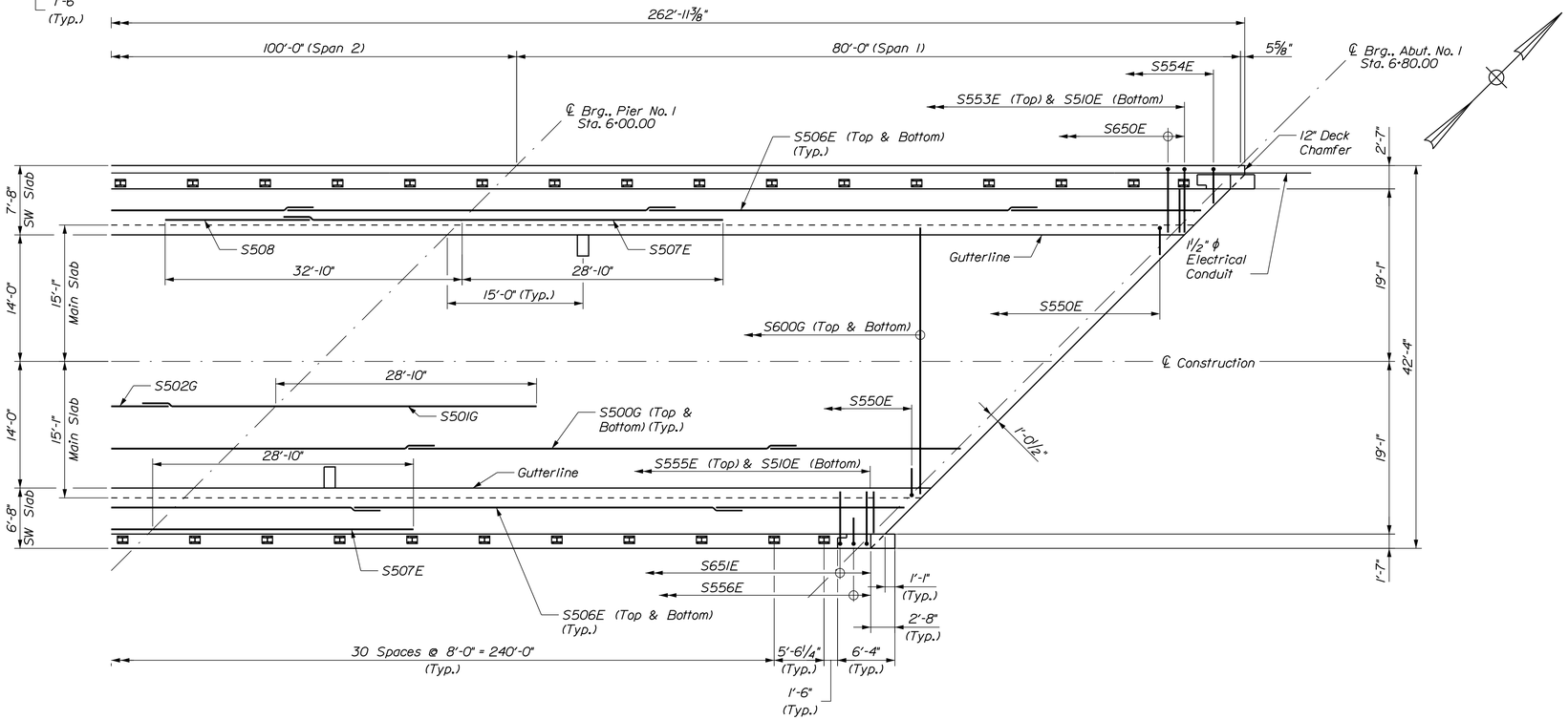
SHEET NUMBER

16

OF 37

Filename: ...\BRIDGE\MSTA\016_SS-Details.dgn Division: HIGHWAY Username: Date:11/13/2015





STRUCTURAL SLAB REINFORCING PLAN

SUPERSTRUCTURE NOTES:

1. See "Expansion Device Heavy Duty Joint" sheets for Expansion Device Details.

2. See Standard Details 526(22) thru 526(24) and 526(34) thru 526(38) for Concrete Transition Barrier Details.

3. See Standard Details 507(01), 507(02) and 507(07) thru 507(14) for Railing Details (4-Bar Traffic/Pedestrian Railing).

4. See Sheet "Superstructure Details" for Section A-A and end of superstructure reinforcement details.

5. See Standard Details 502(15), 502(16), 502(19), 502(22), and 502(24) for Bridge Drain Details.

6. See Standard Detail 502(01) for Construction Joint details at sidewalk slab.

7. Adjust reinforcing bars to fit around bridge drains.

8. Reinforcing steel and GFRP Bars shall have a minimum concrete cover of 2 inches unless otherwise noted.

9. The main superstructure slab concrete shall be placed in one continuous operation and the concrete shall be kept plastic one complete span behind the span being placed. The sidewalk slabs concrete shall be placed simultaneously in one continuos operation after a minimum of 5 days have elapsed from main slab placement. Sidewalk slab concrete shall be kept plastic once complete span behind span being placed.

10. The seals to be furnished shall have a minimum Movement Rating of:
    Abutment Number 1 = 1"
    Abutment Number 2 = 2 1/4"

11. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the sidewalk slabs.

12. Light Pole Anchorage Size and Details are based on published information for the light pole type identified on the "Lighting Details" sheet. The Contractor shall verify & adjust anchorage as necessary to meet the needs of the selected light pole.

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STATE OF MAINE
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STP-1905(800)

WIN 19058.00

BRIDGE PLANS

BRIDGE #5619

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	BLT	JD	09/16/15
CHECKED-REVIEWED	JKO	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

SIGNATURE

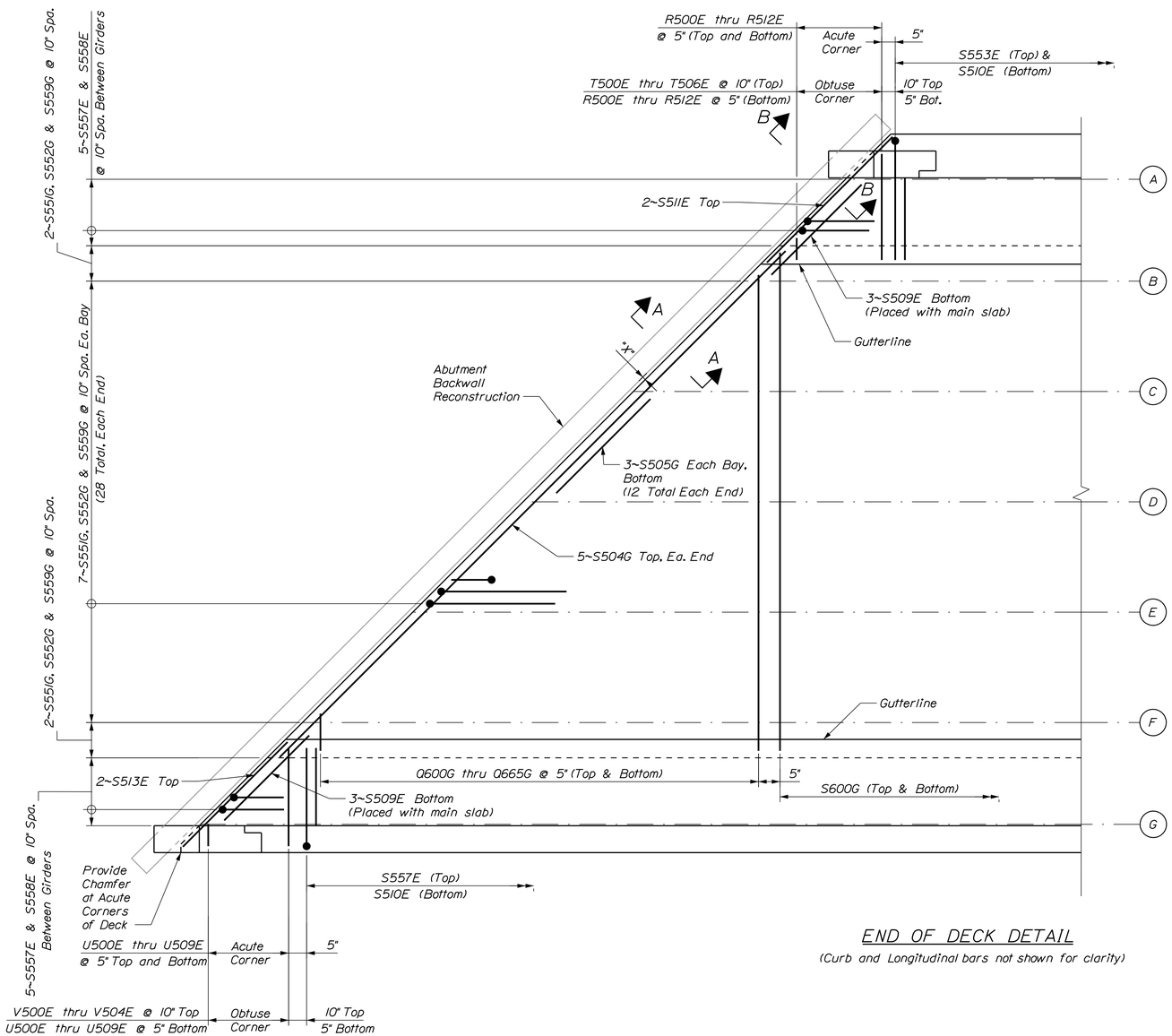
DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

SUPERSTRUCTURE PLAN

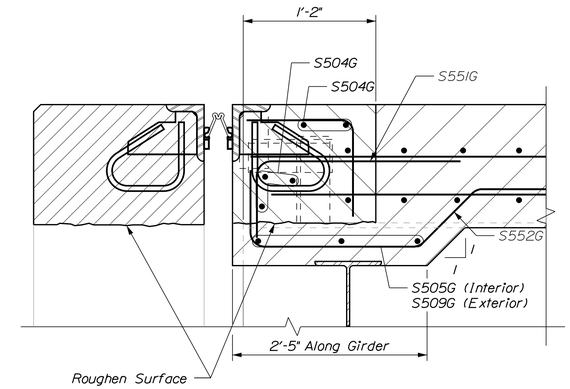
SHEET NUMBER
17
OF 37

Filename: ...\BRIDGE\MSTA\017_Super-Plan.dgn Division: HIGHWAY Username: Date:11/18/2015

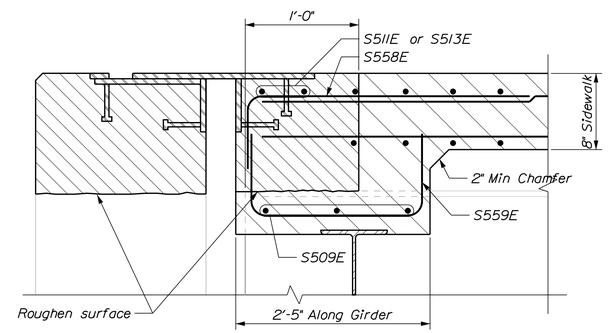


END OF DECK DETAIL

(Curb and Longitudinal bars not shown for clarity)



SECTION A-A



SECTION B-B

SETTING TABLE ABUTMENT 1

Temp	45	60	75	90
"X"	2"	2 1/8"	2 1/8"	2 1/4"

SETTING TABLE ABUTMENT 2

Temp	45	60	75	90
"X"	2"	2 1/8"	2 1/4"	2 1/2"

NOTES:

1. See Sheet "Superstructure Plan" for Superstructure Notes.

BOTTOM OF SLAB ELEVATIONS

Girder	℄ Brg. Abut. 2	Span 3									℄ Brg. Pier 2	Span 2									℄ Brg. Pier 1	Span 1									℄ Brg. Abut. 1
		0.9L	0.8L	0.7L	0.6L	0.5L	0.4L	0.3L	0.2L	0.1L		0.9L	0.8L	0.7L	0.6L	0.5L	0.4L	0.3L	0.2L	0.1L		0.9L	0.8L	0.7L	0.6L	0.5L	0.4L	0.3L	0.2L	0.1L	
A	509.14	509.37	509.59	509.81	510.01	510.21	510.40	510.58	510.76	510.94	511.14	511.40	511.67	511.95	512.22	512.48	512.72	512.95	513.17	513.40	513.64	513.84	514.06	514.28	514.50	514.71	514.91	515.11	515.29	515.47	515.64
B	508.04	508.26	508.48	508.69	508.89	509.09	509.28	509.47	509.65	509.84	510.04	510.30	510.56	510.83	511.10	511.35	511.60	511.83	512.06	512.30	512.54	512.74	512.95	513.17	513.38	513.59	513.79	513.99	514.18	514.36	514.54
C	507.99	508.21	508.43	508.65	508.85	509.05	509.24	509.42	509.61	509.80	509.99	510.25	510.52	510.79	511.05	511.31	511.55	511.79	512.02	512.25	512.49	512.70	512.91	513.12	513.34	513.55	513.75	513.94	514.13	514.31	514.49
D	507.95	508.17	508.39	508.60	508.81	509.00	509.19	509.38	509.56	509.75	509.95	510.21	510.47	510.74	511.01	511.26	511.51	511.74	511.97	512.20	512.45	512.65	512.86	513.08	513.29	513.50	513.70	513.90	514.09	514.27	514.45
E	507.67	507.89	508.11	508.32	508.53	508.72	508.91	509.10	509.28	509.47	509.67	509.93	510.19	510.46	510.73	510.98	511.23	511.46	511.69	511.93	512.17	512.37	512.58	512.80	513.01	513.22	513.42	513.62	513.81	513.99	514.17
F	507.39	507.61	507.83	508.04	508.25	508.44	508.63	508.82	509.00	509.19	509.39	509.65	509.92	510.19	510.45	510.71	510.95	511.19	511.41	511.65	511.89	512.09	512.30	512.52	512.73	512.94	513.14	513.34	513.53	513.71	513.89
G	508.19	508.42	508.65	508.87	509.08	509.28	509.46	509.64	509.81	509.99	510.19	510.45	510.73	511.02	511.29	511.55	511.79	512.02	512.23	512.45	512.69	512.89	513.11	513.34	513.56	513.78	513.98	514.17	514.35	514.52	514.69

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC		
DESIGN-DETAILED	BLT	JD	09/16/15
CHECKED-REVIEWED	JKO	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

SUPERSTRUCTURE DETAILS

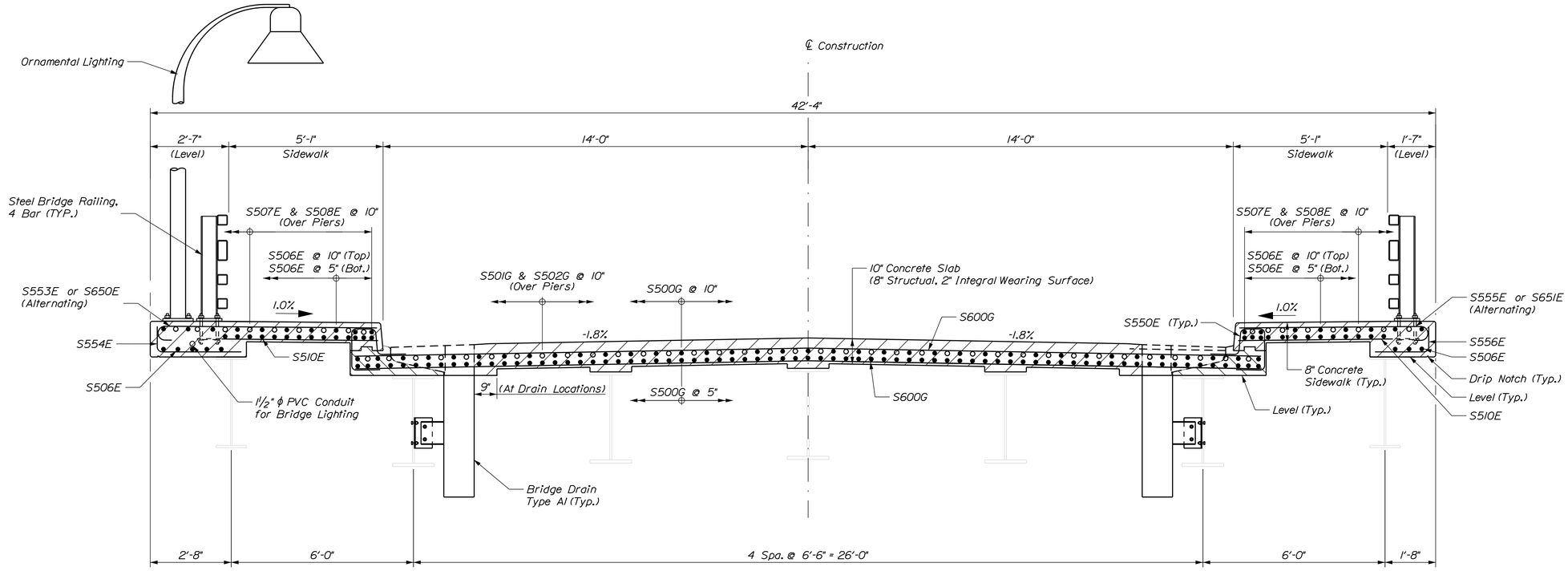
T·Y·LIN INTERNATIONAL

SHEET NUMBER

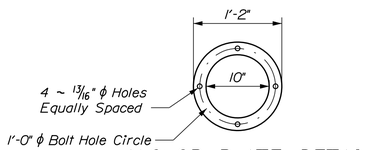
18

OF 37

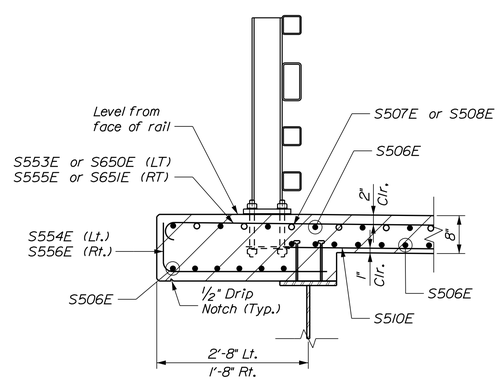
Filename: ...\MSTA\018_Super-Details.dgn Division: HIGHWAY Username: Date:11/13/2015



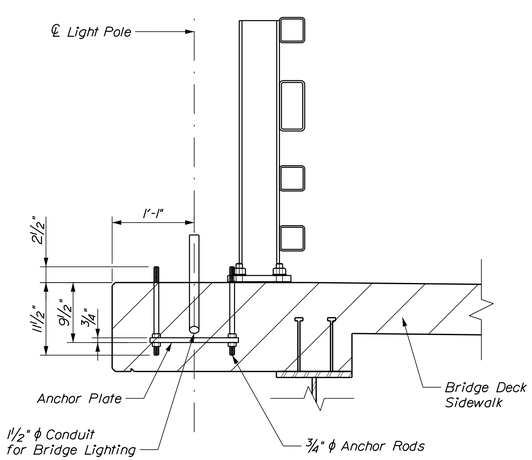
TRANSVERSE REINFORCING SECTION



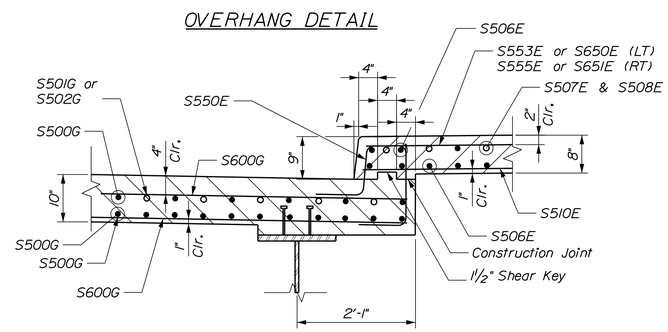
ANCHOR PLATE DETAIL



OVERHANG DETAIL



SECTION AT LIGHT POLE
(Slab Reinforcing not shown for clarity)



CURB DETAIL

T·Y·LIN INTERNATIONAL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

	HEC	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	BLT	JD	09/16/15
CHECKED-REVIEWED	JKO	JKO	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

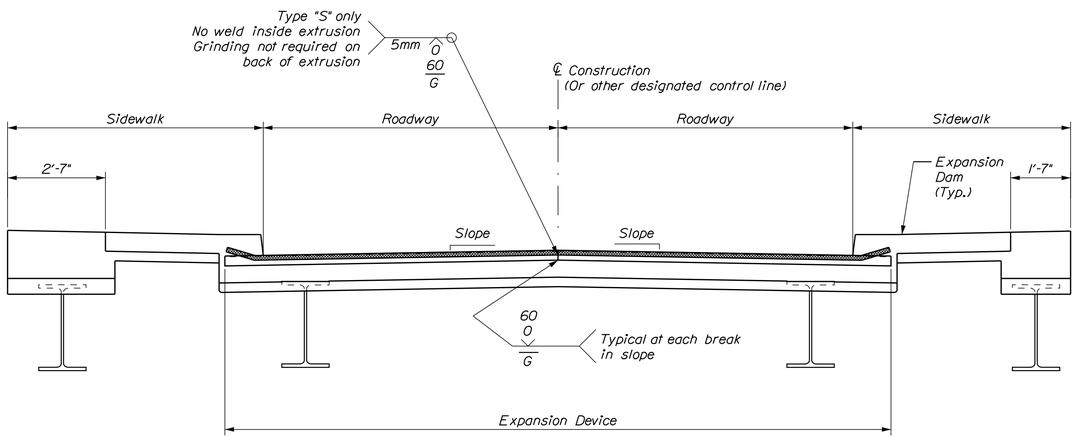
TRANSVERSE SECTION

SHEET NUMBER

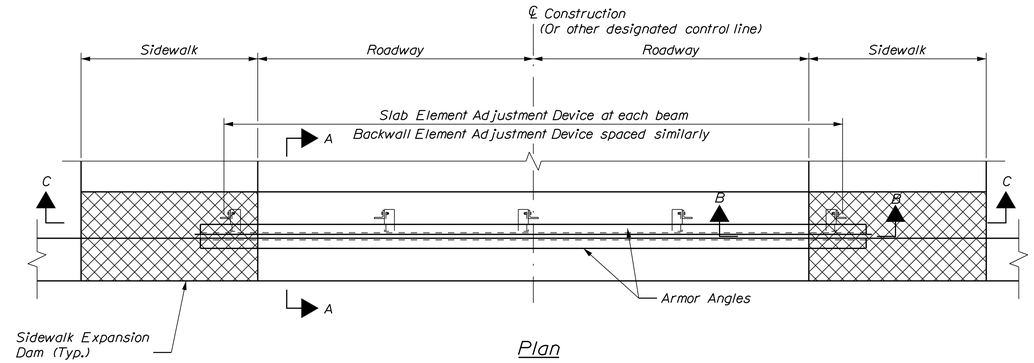
19

OF 37

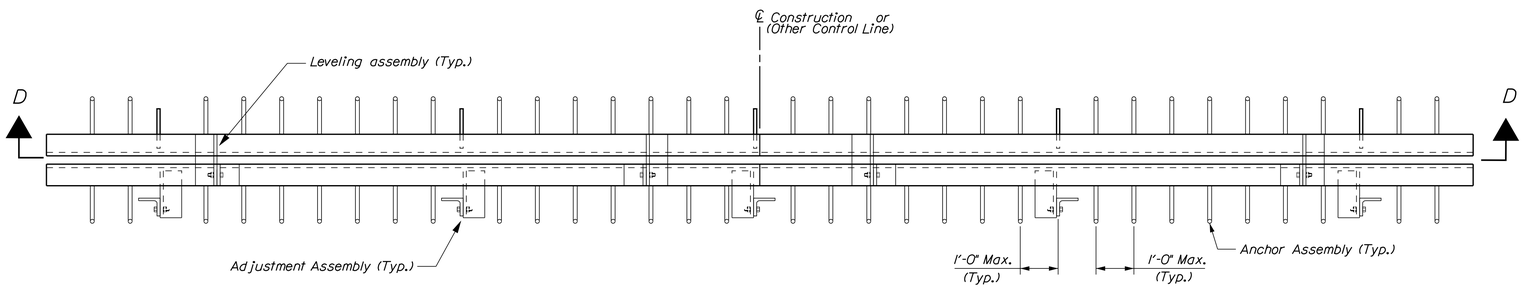
Filename: ...\MSTA\019_Trans-Section.dgn Division: HIGHWAY Username: Date:11/13/2015



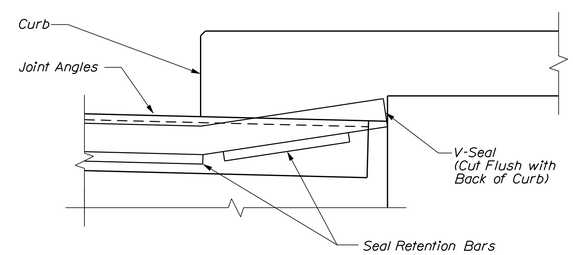
Section C-C



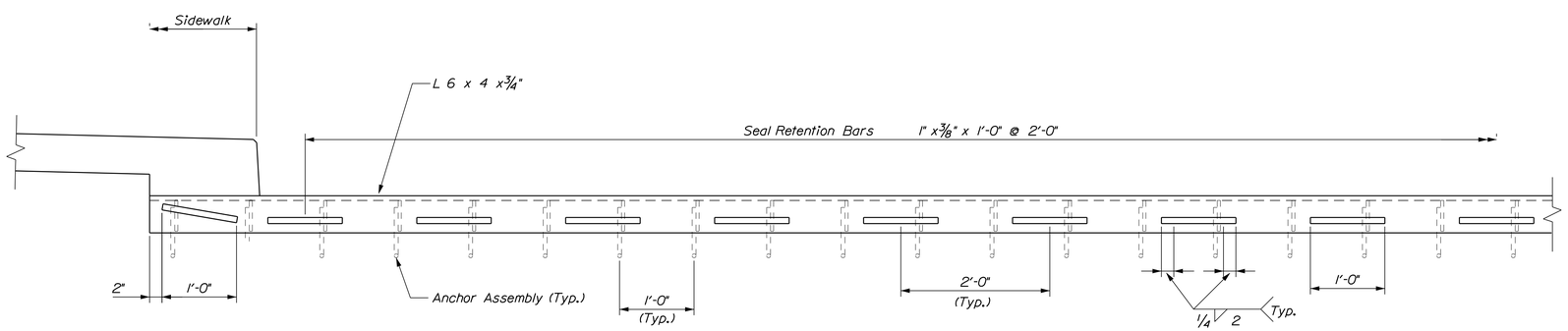
Plan



Roadway Joint Steel Plan



Curb Section B-B
(Sidewalk Expansion Dam
not shown for clarity)



Section D-D
(Sidewalk Expansion Dam
not shown for clarity)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN
19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED			
CHECKED-REVIEWED	JKO	BLT	11/11/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

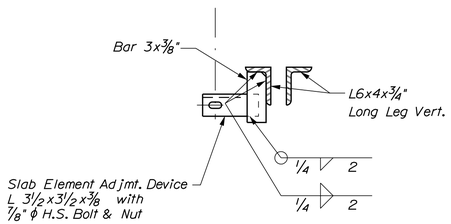
DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

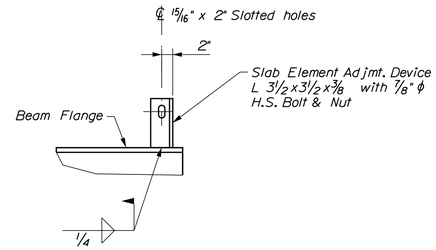
EXPANSION DEVICE
HEAVY DUTY JOINT - 1

SHEET NUMBER
20
OF 37

Filename: ...\020-021-Heavy duty Joint.dgn Division: HIGHWAY Username: Date:11/13/2015



Adjustment Device



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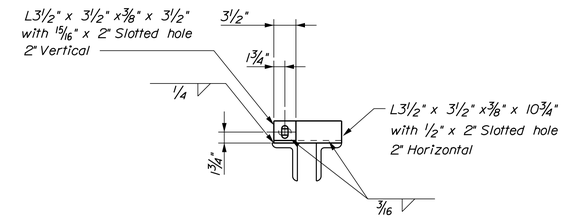
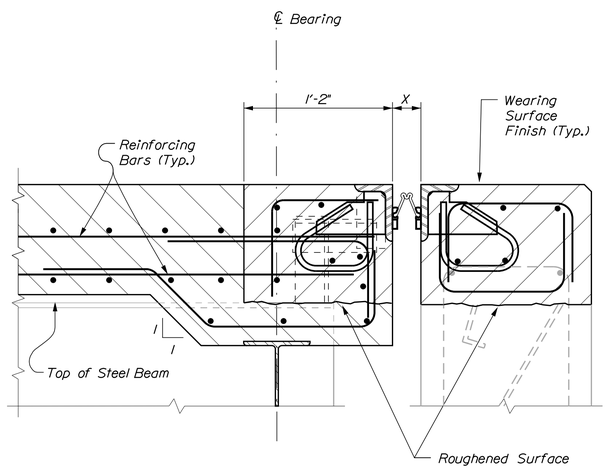


Adjustment Angles



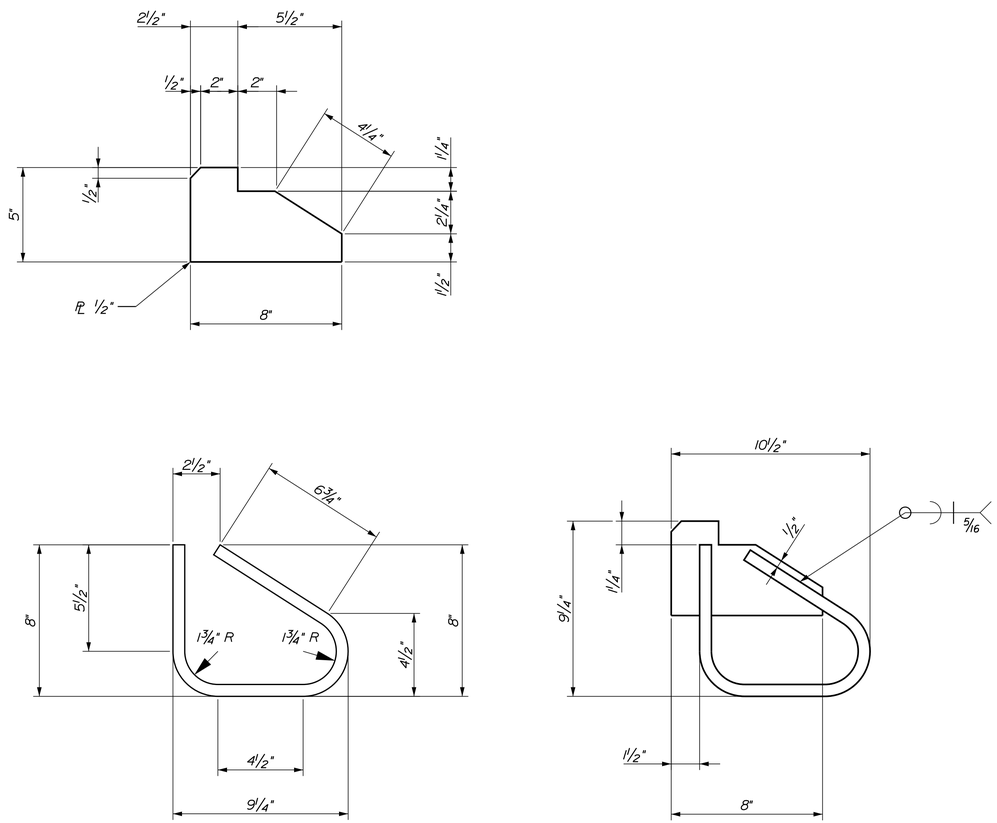
Section A-A

Note

1. The seal used shall be in accordance with the Section 520 Special Provision.
2. Each Heavy Duty Joint consists of one backwall element and one superstructure element (or two superstructure elements over piers) with expansion dams as required.
3. Refer to Design Drawings for dimensions, slopes, skew and all other information necessary to fabricate and install each expansion device.
4. The Expansion Device shall be fabricated to be installed normal to grade.
5. The Expansion Device shall be set to an opening of two inches in the fabrication shop. The joint opening shall be adjusted for temperature in the field at the time of installation using the following formula:

   0.00008 x "D" x "ΔT" = Adjustment (in inches)

   "D" is the distance in feet between the backwall and the nearest fixed bearings (for joints and abutments) or between the fixed bearings at either side of the expansion joint (for joints at piers). ΔT" is the difference between the temperature of the structure and 45°F
6. All adjustment angles to be welded after final position adjustments are made.
7. Welding to reinforcing steel will be allowed in the top of the abutment backwall above the block-out joint.
8. All reinforcing steel to be #5 bar unless noted otherwise.
9. 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.
10. Furnish and install sidewalk expansion dams in accordance with Standard Details 520(01), 520(02) and 520(05) thru 520(08). Payment will be made under Item 520.245, "Bridge Joint Modification Type 5."
11. Payment for furnishing and installing the Heavy Duty Joints shall be made under Item 520.245, "Bridge Joint Modification Type 5."



Anchor Assembly Details

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE PLANS

BRIDGE #5619

		BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	HEC	.	.
CHECKED-REVIEWED	JKO	BLT	11/11/15
DESIGN2-DETAILED2	LED2		
DESIGN3-DETAILED3	LED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

EXPANSION DEVICE
HEAVY DUTY JOINT - 2

SHEET NUMBER

21

OF 37

Filename: ...\020-021-Heavy duty Joint.dgn Division: HIGHWAY Username: Date:11/19/2015

REINFORCING STEEL SCHEDULE

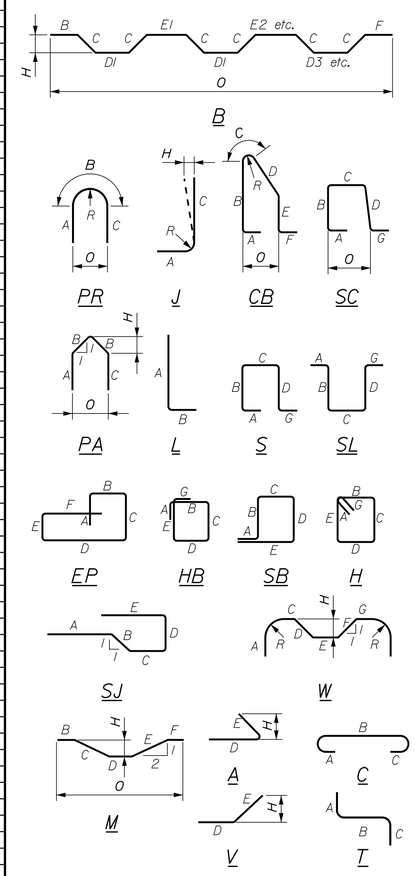
STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION
			Abutment No. 1				
A400E	2	29'-11"	Northeast Wingwall				
A500E	8	31'-7"	Backwall - Roadway				
A501E	1	10'-5"	Backwall - Sidewalk				
A502E	1	9'-6"	Backwall - Sidewalk				
A503E	1	9'-1"	Backwall - Sidewalk				
A504E	1	10'-0"	Backwall - Sidewalk				
			Abutment No. 2				
B500E	8	32'-1"	Backwall - Roadway				
B501E	2	10'-5"	Backwall - Sidewalk				
B502E	1	11'-5"	Backwall - Sidewalk				
B503E	1	9'-6"	Backwall - Sidewalk				
			Superstructure				
S500G	770	40'-4"	Main Slab, Long.				
S501G	72	40'-0"	Main Slab, Over Piers, Long.				
S502G	72	24'-11"	Main Slab, Over Piers, Long.				
S503G	64	3'-0"	Main Slab, Drain Locations				
S504G	10	42'-2"	Main Slab, End Beam				
S505G	24	8'-7"	Main Slab, End Beam				
S506E	371	40'-4"	Sidewalk Slabs, Long.				
S507E	34	40'-0"	SW Slabs, Over Piers, Long.				
S508E	34	24'-11"	SW Slabs, Over Piers, Long.				
S509E	12	7'-11"	Sidewalk Slabs, End Beam				
S510E	1229	5'-1"	Sidewalk Slabs, Bot., Transv				
S511E	4	9'-3"	Left Sidewalk Slab, End Beam				
S512E	4	8'-7"	Right Sidewalk Slab, End Beam				
S600G	1118	29'-10"	Main Slab, Trans.				
Q600G	4	29'-7"					
thru	4 Ea.	inc. = 5"	Trans., Main Slab				
Q665G	4	2'-6"					
R500E	3	7'-0"					
thru	3 Ea.	inc. = 5"	Trans., Left Sidewalk Slab				
R512E	3	2'-0"					
T500E	1	6'-7"					
thru	1 Ea.	inc. = 10"	Trans., Left Sidewalk Slab				
T506E	1	2'-0"					
U500E	3	6'-0"					
thru	3 Ea.	inc. = 5"	Trans., Right Sidewalk Slab				
U509E	3	2'-3"					
V500E	1	5'-7"					
thru	1 Ea.	inc. = 10"	Trans., Right Sidewalk Slab				
V504E	1	2'-3"					
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
								Abutment No. 1						
A450E	40	2'-6"	L	1'-10"	8"	-	-	-	-	-	-	-	-	NE Wingwall Dowel
A550E	84	2'-7"	S	0"	10"	11"	10"	-	-	0"	-	-	-	Abutment Stirrups - Roadway
A551E	42	3'-9"	S	0"	1'-5"	11"	1'-5"	-	-	0"	-	-	-	Abutment Stirrups - Sidewalk
A552E	2	3'-11"	S	0"	1'-3"	1'-5"	1'-3"	-	-	0"	-	-	-	Abutment Stirrups - Sidewalk
								Abutment No. 2						
B550E	84	2'-7"	S	0"	10"	11"	10"	-	-	0"	-	-	-	Abutment Stirrups - Roadway
B551E	46	3'-7"	S	0"	1'-4"	11"	1'-4"	-	-	0"	-	-	-	Abutment Stirrups - Sidewalk
B552E	2	3'-11"	S	0"	1'-3"	1'-5"	1'-3"	-	-	0"	-	-	-	Abutment Stirrups - Sidewalk
								Superstructure						
S550E	1260	4'-7"	SC	10"	1'-4"	8"	11"	-	-	10"	-	9"	-	Curb Stirrup
S551G	64	3'-0"	L	2'-4"	8"	-	-	-	-	-	-	-	-	Main Slab End Beam
S552G	64	5'-8"	SJ	2'-4"	9"	1'-11"	8"	0"	-	-	-	-	-	Main Slab End Beam
S553E	307	7'-10"	C	7"	7'-3"	0"	-	-	-	-	-	-	-	Left Sidewalk Slab
S554E	625	3'-8"	L	2'-10"	10"	-	-	-	-	-	-	-	-	Left Sidewalk Slab Overhang
S555E	308	6'-10"	C	7"	6'-3"	0"	-	-	-	-	-	-	-	Right Sidewalk Slab
S556E	628	2'-8"	L	1'-10"	10"	-	-	-	-	-	-	-	-	Right Sidewalk Slab Overhang
S557E	20	2'-7"	L	1'-10"	9"	-	-	-	-	-	-	-	-	Sidewalk Slabs End Beams
S558E	20	4'-5"	S	0"	1'-3"	1'-11"	1'-3"	-	-	0"	-	-	-	Sidewalk Slabs End Beams
S559G	64	1'-6"	L	10"	8"	-	-	-	-	-	-	-	-	Main Slab End Beam
S650E	306	6'-8"	C	8"	6'-0"	0"	-	-	-	-	-	-	-	Left Sidewalk Transverse
S651E	308	5'-8"	C	8"	5'-0"	0"	-	-	-	-	-	-	-	Right Sidewalk Transverse
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.

Reinforcing Bar: ASTM A615/A615M, Grade 420

GENERAL NOTES

1. The first digit following the letter(s) of the mark indicate the size of the bar:

   Mark "A502" = bar size #5
   Mark "P601" = bar size #6
   Mark "S950" = bar size #9

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.

3. Bar marks ending with an "E" indicate epoxy coating required.

4. Bar marks ending with a "G" indicate Glass Fiber Reinforced Polymer (GFRP) reinforcing.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE PLANS

BRIDGE #5619

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	BLT	BLT	10/2015
CHECKED-REVIEWED	TJP	TJP	10/2015
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS: 1			
REVISIONS: 2			
REVISIONS: 3			
REVISIONS: 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

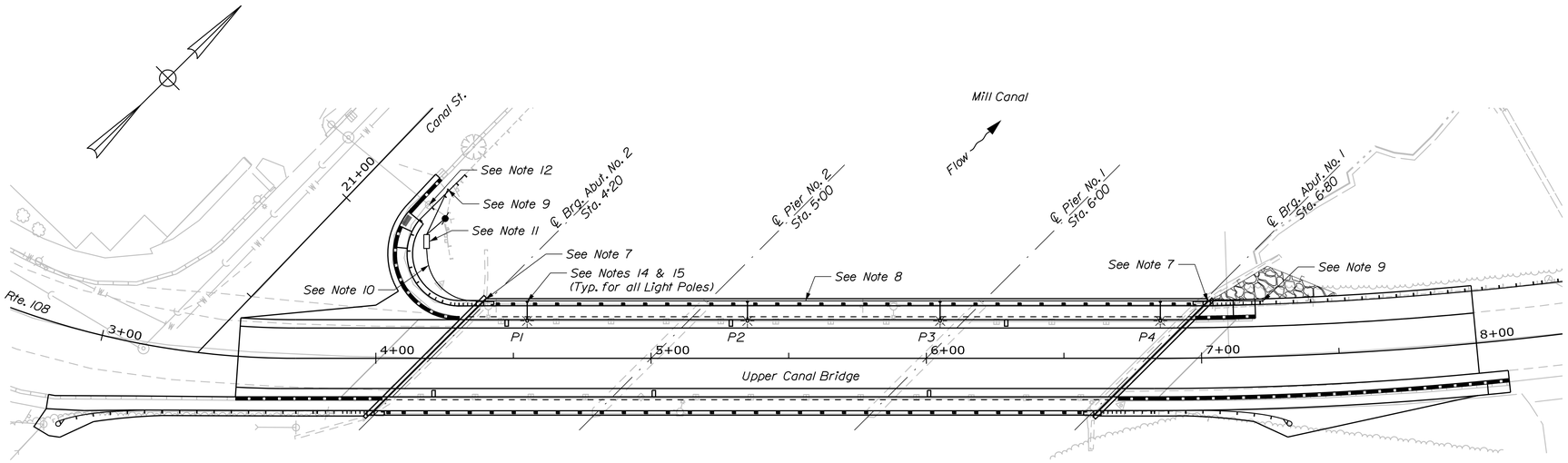
REINFORCING
STEEL SCHEDULE

SHEET NUMBER

22

OF 37

Filename: ...\MSTA\022_Reinf Sched.dgn Division: HIGHWAY Username: Date:11/13/2015



LIGHTING PLAN

25 0 25 50
Scale of Feet

LIGHTING NOTES:

1. Prior to the start of construction, the Contractor shall contact dig safe to locate all existing underground utilities within the work area and take all necessary precautions for protection of these utilities.

2. All materials and workmanship shall conform to the current edition of the National Electrical Code (NEC), Town of Rumford requirements, Section 634 of the Standard Specifications, and applicable Standard Details 626(01) thru 626(09) and 634(01) thru 634(03), unless noted otherwise.

3. Where conduit is run under existing pavement which is to remain, the Contractor shall utilize the directional boring or jacking method for conduit installation to avoid disturbing existing pavement.

4. Where underground conduit is required to pass over drainage culverts or other buried obstructions and the specified burial depth of conduit cannot be maintained the contractor shall provide concrete protection of conduit in accordance with NEC Table 300.5.

5. The Contractor shall coordinate all lighting work with other contractors working on this project.

6. Installation of all underground conduit shall comply with Standard Detail 626(07).

7. Provide expansion fitting at end of bridge. Expansion fitting shall be OZ-Gedney Type AX or approved equal.

8. Conduit and wiring placed in the concrete sidewalk shall be 1½ inch ϕ Schedule 40 PVC conduit with (2) #8 AWG CU Type XHHW & (1) #8 ground.

9. Cap the end of the 1½ inch conduit and mark location for future extension.

10. 1½ inch Schedule 40 PVC conduit with (2) #8 AWG CU Type XHHW & (1) #8 ground shall be used to connect to a new lighting control cabinet.

11. Install a new ground mounted lighting control cabinet ½ volt single phase 3-wire per Standard Detail 634(02) with 50 amp 2-pole main circuit breaker, 50 amp 2-pole contactor, H-O-A selector switch, lightning arrestors and photocell control in NEMA 3R pad mount cabinet. Provide ½ volt 3-wire meter socket per Central Maine Power (CMP) standards mounted on side of control cabinet. Provide system grounding electrodes per MaineDOT Standard Detail 634(01). Control Cabinet Foundation shall be per Standard Detail 626(05).

12. Extend 1½ inch Schedule 40 PVC conduit with (3) #8 AWG CU Type XHHW from the lighting control cabinet via meter socket to existing CMP pole. Provide rigid steel conduit elbow, extend rigid conduit up pole to a point designated by CMP, terminate conduit with weather head and provide slack conductor as required by CMP for conductor terminations. Provide conduit stand-off brackets for attachment of conduit to CMP pole as required by CMP.

13. Make arrangements with CMP for disconnection and removal of street lighting circuit to and on existing bridge.

14. Bridge luminaires and poles shall consist of Holophane Hallbrook extended led luminaire Cat. No. GELF2-070MA-3K-AS-4-1-L3-B with Boston Harbor style fitter, OUC series arm and North Yorkshire decorative pole Cat. No. NY-A-17-L5J17-P15-ABG-BK typical for 4 locations. Finish color of luminaire, pole & arm shall be black.

15. Provide 2-pole breakaway fuseholders with 5 ampere fuses at each pole and sufficient slack wire to allow fuseholders to be withdrawn from pole handhole a minimum of twelve inches to facilitate maintenance. Tap conductors from #8 AWG circuit conductors via fuseholders to luminaires shall be #12 AWG CU.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	CA	JD	09/16/15
CHECKED-REVIEWED	ST	CA	09/16/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

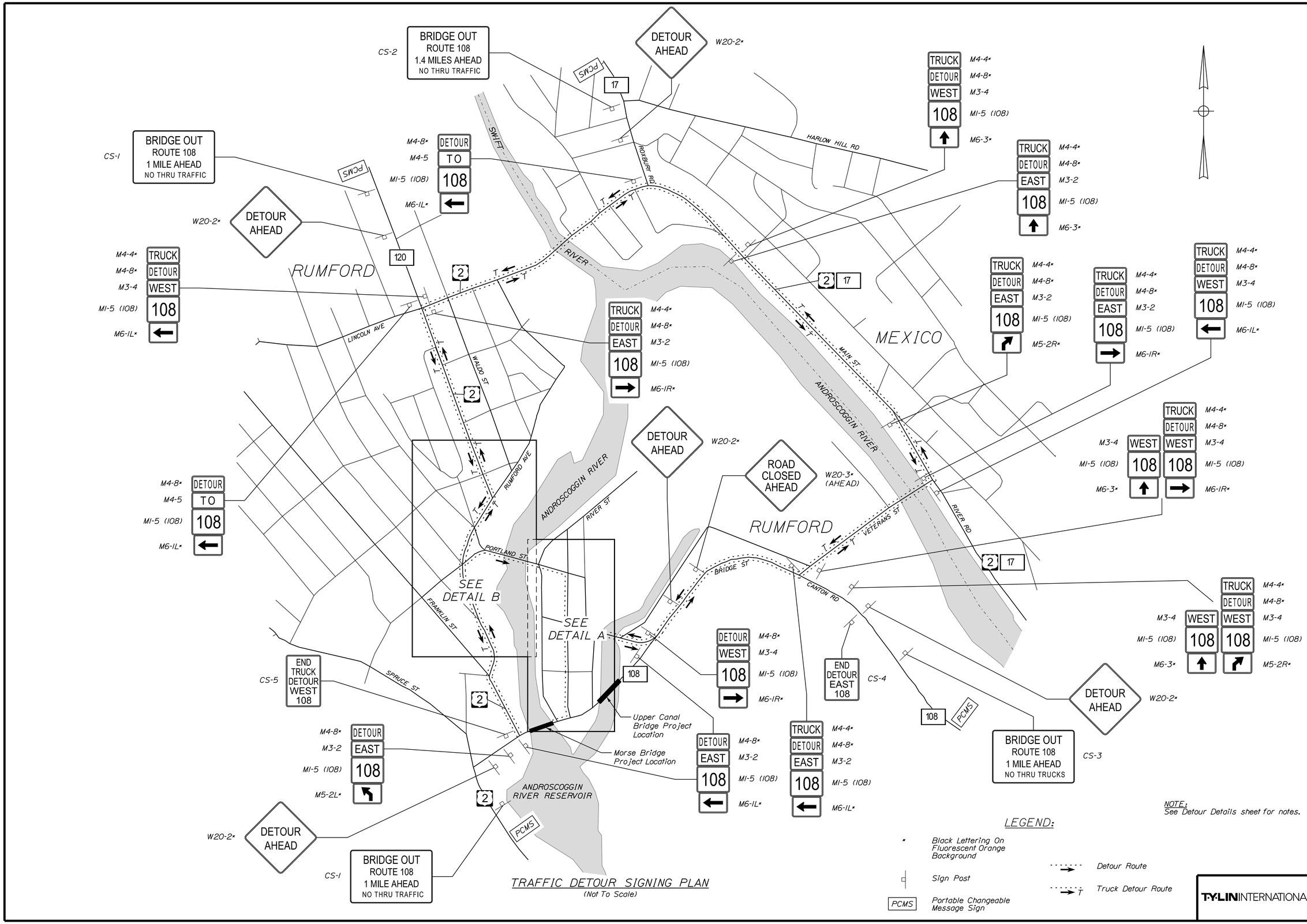
DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

LIGHTING DETAILS

SHEET NUMBER
23
OF 37

Filename: ...\MSTA\023-Light-Details.dgn Division: HIGHWAY Username: Date:11/13/2015



NOTE:
See Detour Details sheet for notes.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	DWB	TSK	10/15
CHECKED-REVIEWED	DWB	JRH	10/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

TRAFFIC DETOUR SIGNING

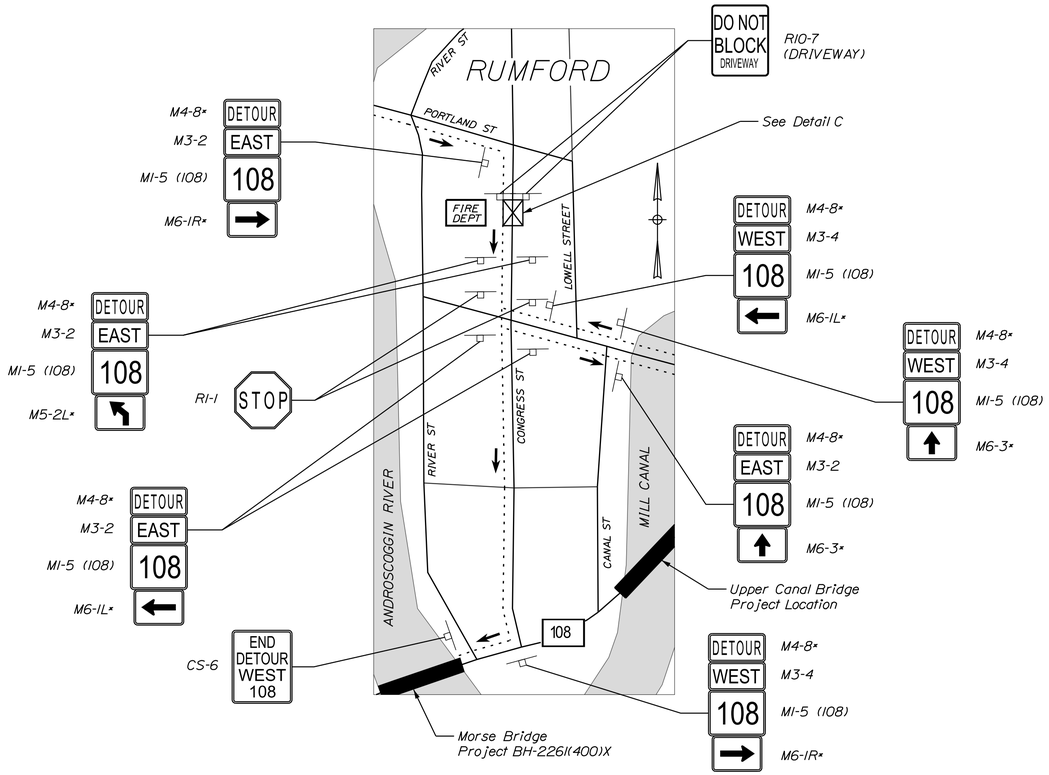
T·Y·LIN INTERNATIONAL

SHEET NUMBER

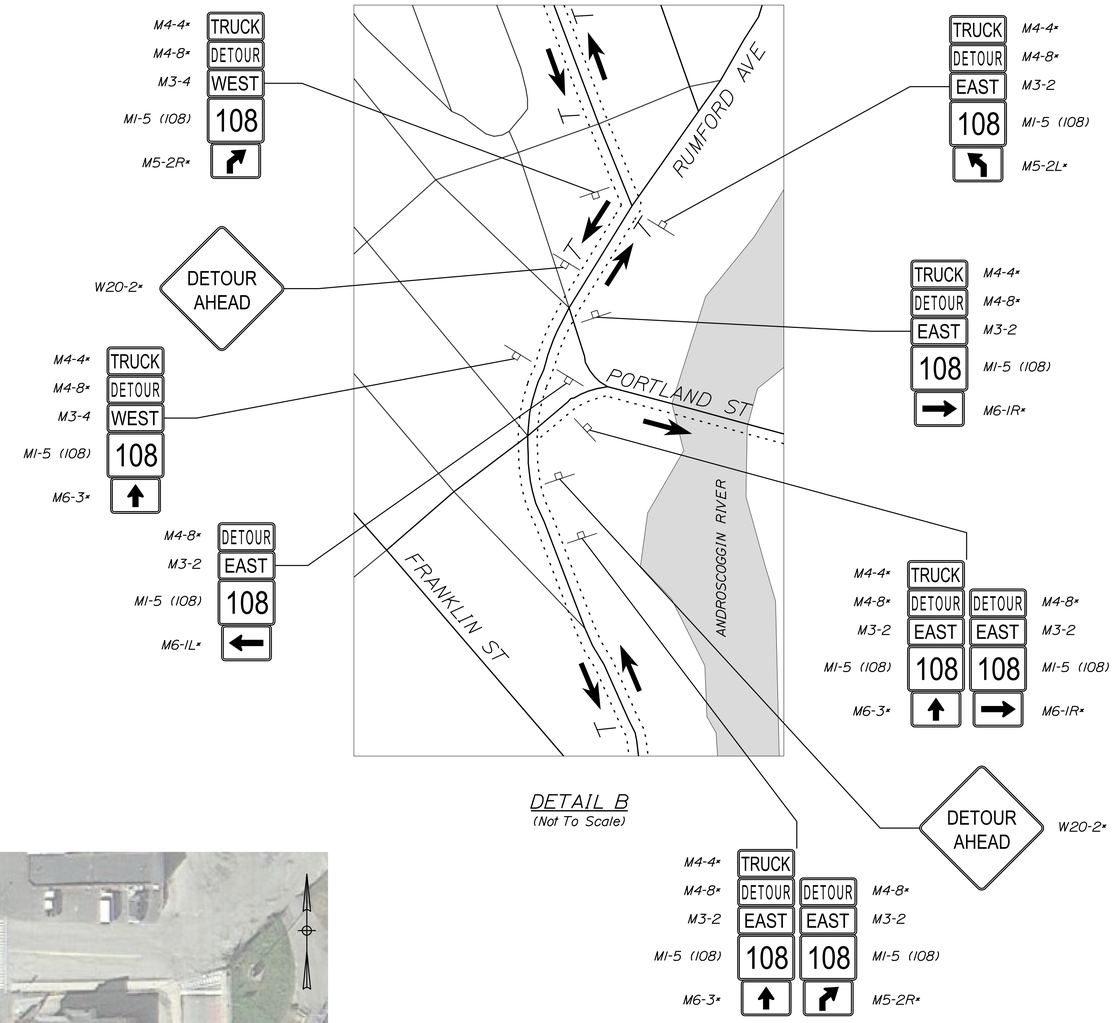
24

OF 37

Filename: ...\MSTA\024_HDDetour_01.dgn Division: HIGHWAY Username: Date:11/13/2015



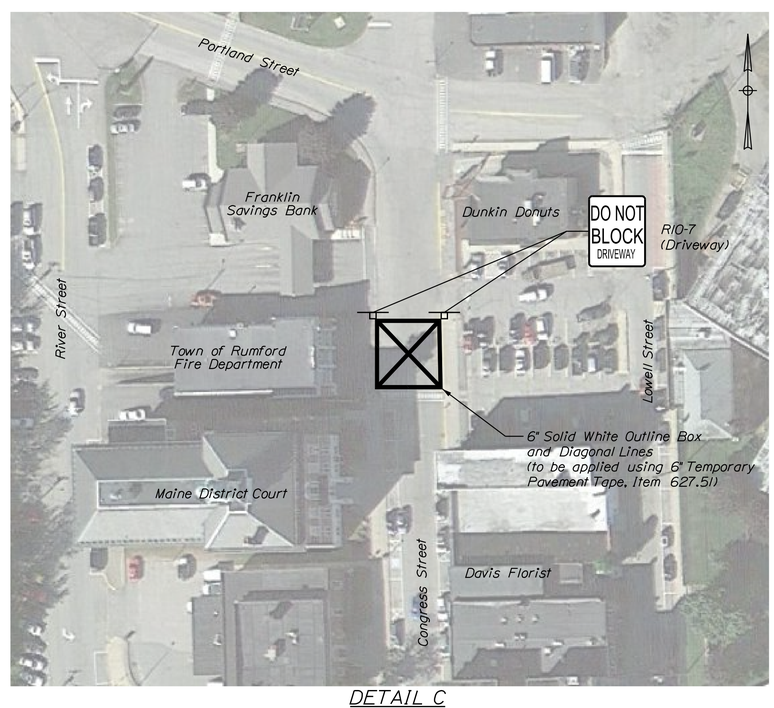
DETAIL A
(Not To Scale)



DETAIL B
(Not To Scale)

DETOUR SIGNING NOTES

1. Exact sign locations will be coordinated between the Contractor and the Resident. Signs shall be in accordance with latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Standard Highway Signs (SHS) book, and the Maine Department of Transportation Standard Details.
2. Portable Changeable Message Signs "PCMS" shall be placed where designated on the Plans or as directed by the Resident 14 days prior to the start of construction to warn of impending detours. These shall then be deployed to locations specified by the Resident once construction has begun if necessary. Payment for these signs, including relocating during construction, shall be included in Item 652.41, "Portable-Changeable Message Sign."
3. Installation of detour signs shall not block any existing traffic control sign assemblies and shall modify or be placed adjacent to existing sign assemblies when possible. The Contractor shall maintain at least 200 feet between sign assemblies whenever possible.
4. Existing signs that are in conflict with the traffic flow of the detour shall be removed or covered by the Contractor. All signs removed or covered shall be replaced or uncovered when the detour is disassembled. Payment for this work will be incidental to the 652 Items.
5. This detour shall remain in place for the duration of a concurrent painting project on Morse Bridge, located approximately 500 ft west of this Project. See project-specific Special Provisions for additional information and requirements.



DETAIL C
(Not to Scale)

LEGEND:

- * Black Lettering On Fluorescent Orange Background
- Detour Route
- Sign Post

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	DWB		
CHECKED-REVIEWED	DWB		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

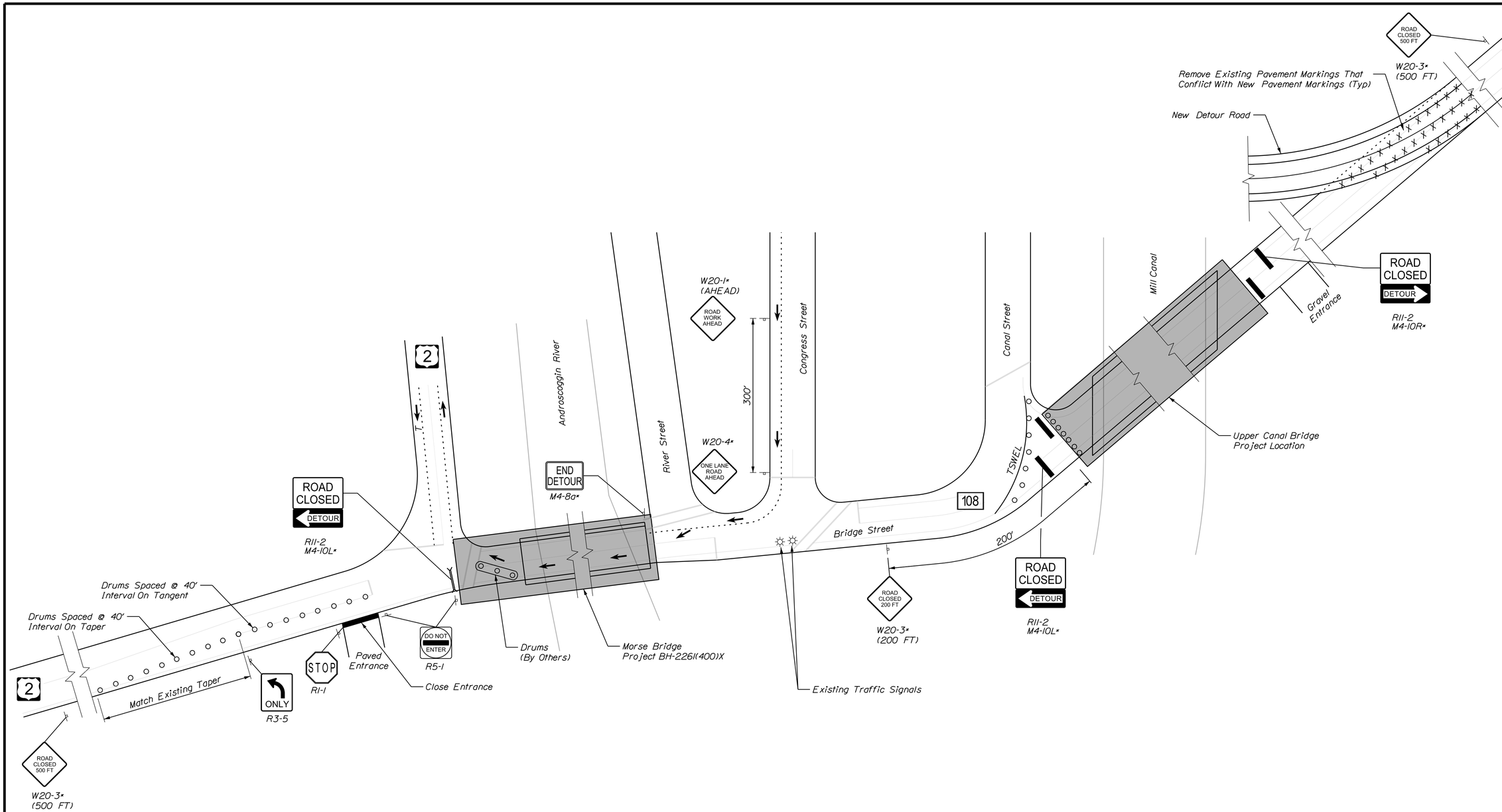
UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

DETOUR DETAILS

T·Y·LIN INTERNATIONAL

SHEET NUMBER
25
OF 37

Filename: ...\MSTA\025_HDDetour_02.dgn Division: HIGHWAY Username: Date:11/13/2015



PLAN
Not To Scale

NOTES:

1. Traffic signal at the intersection of Bridge Street and Congress Street shall be adjusted to flashing yellow for the duration of the detour.
2. See Detour Details sheet for additional notes.

LEGEND:

*	Black Lettering On Fluorescent Orange Background
OR	Existing Pavement Striping
X X X X	Remove Existing Pavement Marking
→	Detour Route
→ T	Truck Detour Route
○	Drum
	Type III Barricade
	Sign Post
	Temporary Concrete Barrier
TSWEL	Temporary Single White Edge Line

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE #5619

BRIDGE PLANS

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	DWB	TSK	10/15
CHECKED-REVIEWED	DWB	JRH	10/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

CONSTRUCTION SIGNING

SHEET NUMBER
26
OF 37

Filename: ...\MSTA\026_HDDetour_03.dgn Division: HIGHWAY Username: Date:11/13/2015

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND BORDER	BORDER RADIUS	AREA IN SQUARE FEET	NOTES
MI-5 (108)	30"	24"	108	TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			36	WHITE	BLACK		5.00 (180)	
M3-2	24"	12"	EAST				21	WHITE	BLACK		2.00 (42)	
M3-4	24"	12"	WEST				13	WHITE	BLACK		2.00 (26)	
M4-4	24"	12"	TRUCK				16	ORANGE	BLACK		2.00 (32)	
M4-5	24"	12"	TO				2	WHITE	BLACK		2.00 (4)	
M4-8	24"	12"	DETOUR				34	ORANGE	BLACK		2.00 (68)	
M4-8A	24"	18"	END DETOUR				1	ORANGE	BLACK		3.00 (3)	
M4-10L	48"	18"	DETOUR				2	ORANGE	BLACK		6.00 (12)	
M4-10R	48"	18"	DETOUR				1	ORANGE	BLACK		6.00 (6)	
M5-2L	21"	15"					4	ORANGE	BLACK		2.19 (8.8)	
M5-2R	21"	15"					4	ORANGE	BLACK		2.19 (8.8)	
M6-1L	21"	15"					11	ORANGE	BLACK		2.19 (24.1)	
M6-1R	21"	15"					8	ORANGE	BLACK		2.19 (17.5)	
M6-3	21"	15"					9	ORANGE	BLACK		2.19 (19.7)	
R1-1	30"	30"	STOP				3	RED	WHITE		6.25 (18.75)	
R3-5	30"	36"	ONLY				1	WHITE	BLACK		7.50 (7.5)	
R5-1	30"	30"	DO NOT ENTER				2	RED	WHITE		6.25 (12.5)	
R10-7 (DRIVEWAY)	24"	30"	DO NOT BLOCK DRIVEWAY				2	WHITE	BLACK		5.00 (10)	
R11-2	48"	30"	ROAD CLOSED				3	WHITE	BLACK		10.00 (30)	

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS (INCHES) LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND BORDER	BORDER RADIUS	AREA IN SQUARE FEET	NOTES
W1-8R	24"	30"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2009			2	ORANGE	BLACK		5.00 (10)	
W20-1 (AHEAD)	36"	36"	ROAD WORK AHEAD				1	ORANGE	BLACK		9.00 (9)	
W20-2	36"	36"	DETOUR AHEAD				7	ORANGE	BLACK		9.00 (63)	
W20-3 (200 ft) (500 ft)	36"	36"	ROAD CLOSED ___ FT				1 2	ORANGE	BLACK		9.00 (9) 9.00 (18)	
W20-3 (AHEAD)	36"	36"	ROAD CLOSED AHEAD				1	ORANGE	BLACK		9.00 (9)	
W20-4	36"	36"	ONE LANE ROAD AHEAD				1	ORANGE	BLACK		9.00 (9)	
CS-1	60"	40"	BRIDGE OUT ROUTE 108 1 MILE AHEAD NO THRU TRAFFIC	6C 5C 5C 4C	4" 4" 4"		2	ORANGE	BLACK		16.67 (33.3)	
CS-2	60"	40"	BRIDGE OUT ROUTE 108 1.4 MILE AHEAD NO THRU TRAFFIC	6C 5C 5C 4C	4" 4" 4"		1	ORANGE	BLACK		16.67 (16.7)	
CS-3	60"	40"	BRIDGE OUT ROUTE 108 1 MILE AHEAD NO THRU TRUCKS	6C 5C 5C 4C	4" 4" 4"		1	ORANGE	BLACK		16.67 (16.7)	
CS-4	24"	32"	END DETOUR EAST 108	4D 4D 4D 4D	3" 3" 3"		1	ORANGE	BLACK		5.33 (5.3)	
CS-5	24"	39"	END TRUCK DETOUR WEST 108	4D 4D 4D 4D 4D	3" 3" 3" 3"		1	ORANGE	BLACK		6.5 (6.5)	
CS-6	24"	32"	END DETOUR WEST 108	4D 4D 4D 4D	3" 3" 3"		1	ORANGE	BLACK		5.33 (5.3)	

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1905(800)

WIN 19058.00

BRIDGE PLANS

BRIDGE #5619

PROJ. MANAGER	HEC	BY	DATE
DESIGN-DETAILED	DWB	TSK	10/15
CHECKED-REVIEWED	DWB	JRH	10/15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
OVER MILL CANAL
RUMFORD OXFORD COUNTY

TRAFFIC SIGN SUMMARY

SHEET NUMBER

27

OF 37

Filename: ...\MSTA\027_SignSum_01.dgn Division: HIGHWAY Username: Date:11/13/2015

Filename: ...\TRAFFIC\MSTA\028_BDDetour1.dgn Division: HIGHWAY Username: Date:11/13/2015

DETOUR PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

19058.00

WIN 19058.00

BRIDGE NO. 5619

BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

DETOUR PLAN

SHEET NUMBER

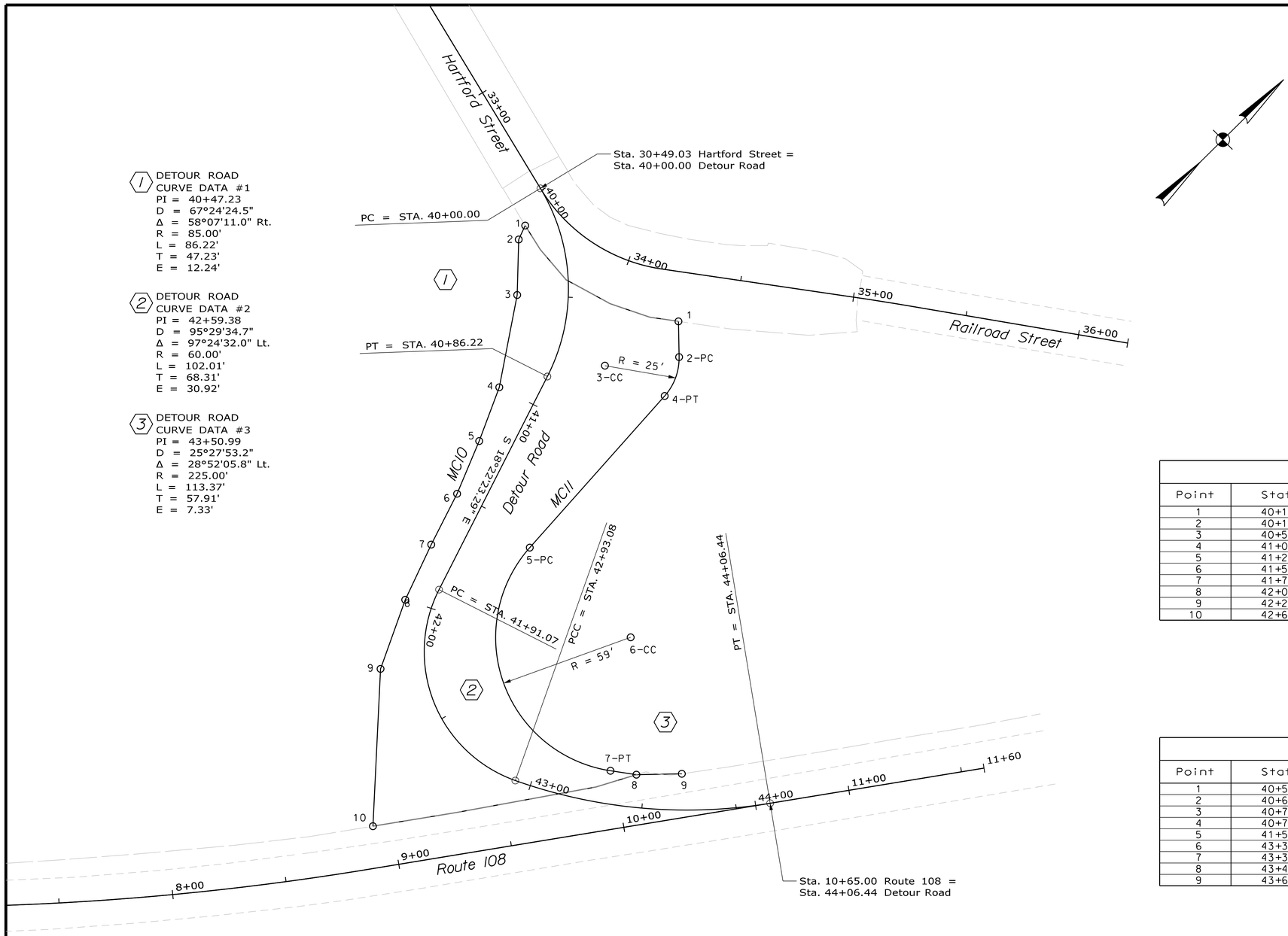
28

OF 37

1 DETOUR ROAD
CURVE DATA #1
PI = 40+47.23
D = 67°24'24.5"
Δ = 58°07'11.0" Rt.
R = 85.00'
L = 86.22'
T = 47.23'
E = 12.24'

2 DETOUR ROAD
CURVE DATA #2
PI = 42+59.38
D = 95°29'34.7"
Δ = 97°24'32.0" Lt.
R = 60.00'
L = 102.01'
T = 68.31'
E = 30.92'

3 DETOUR ROAD
CURVE DATA #3
PI = 43+50.99
D = 25°27'53.2"
Δ = 28°52'05.8" Lt.
R = 225.00'
L = 113.37'
T = 57.91'
E = 7.33'



CONTROL POINTS FOR MC10				
Point	Station	Offset	X Coord.	Y Coord.
1	40+12.52	13.37'	940205.871	624233.288
2	40+18.28	18.21'	940208.205	624226.961
3	40+50.00	22.40'	940225.042	624209.372
4	41+00.00	16.65'	940248.309	624175.317
5	41+25.00	13.83'	940258.870	624152.482
6	41+50.00	12.00'	940268.486	624129.333
7	41+75.00	12.00'	940276.366	624105.607
8	42+00.00	12.00'	940285.552	624080.475
9	42+25.00	19.50'	940299.487	624051.466
10	42+64.17	52.53'	940346.185	624000.571

CONTROL POINTS FOR MC11				
Point	Station	Offset	X Coord.	Y Coord.
1	40+55.36	49.00'	940282.991	624251.496
2	40+65.04	51.84'	940294.317	624240.684
3	40+73.68	21.49'	940274.129	624214.913
4	40+76.37	50.62'	940302.002	624224.198
5	41+56.62	27.11'	940307.687	624135.377
6	43+32.95	73.75'	940366.760	624139.158
7	43+33.79	14.56'	940402.138	624091.699
8	43+46.07	14.35'	940411.307	624098.552
9	43+67.39	15.89'	940425.097	624113.007

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

19058.00

WIN 19058.00

BRIDGE NO. 5619

BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	Oct. 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

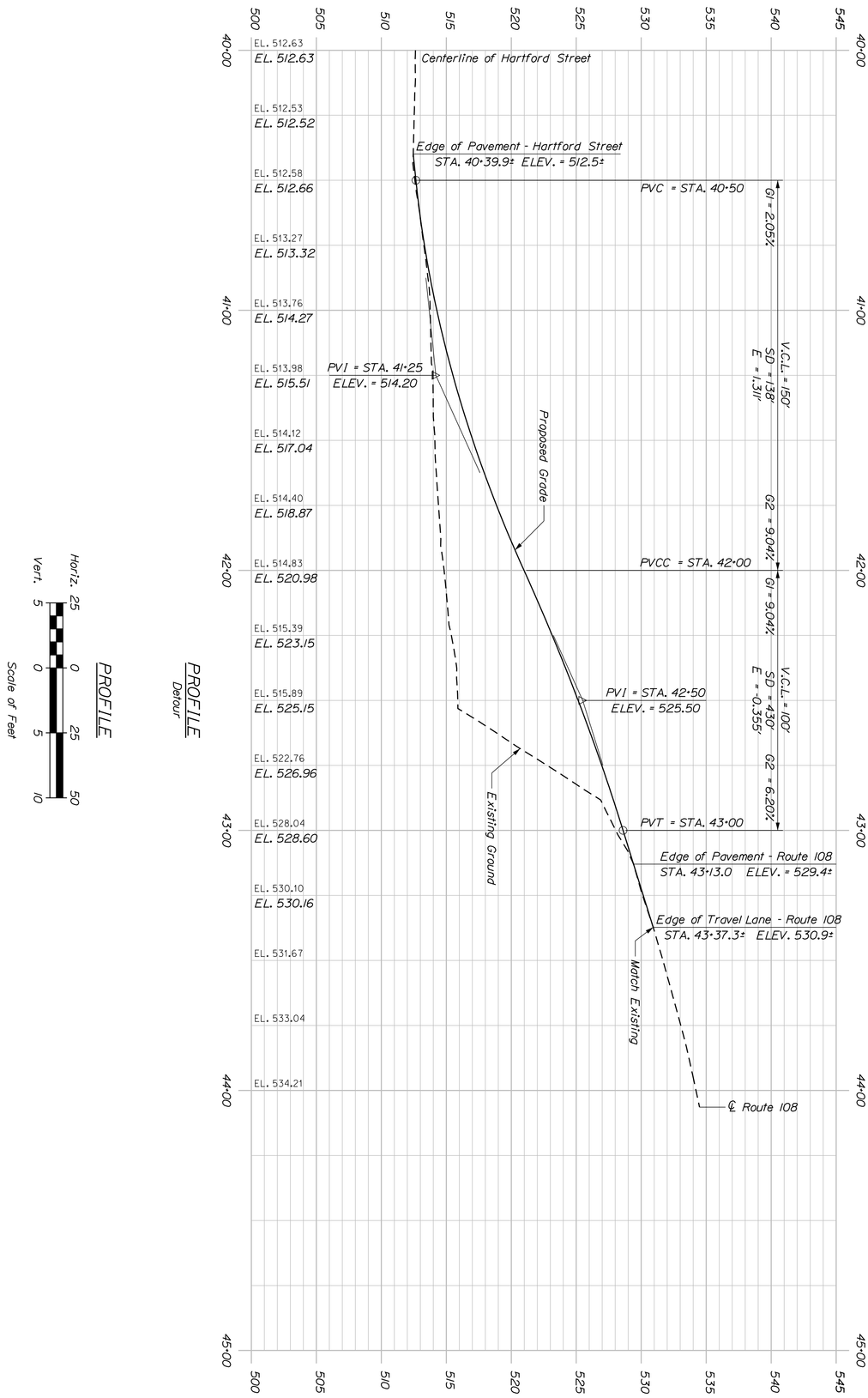
DATE

UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

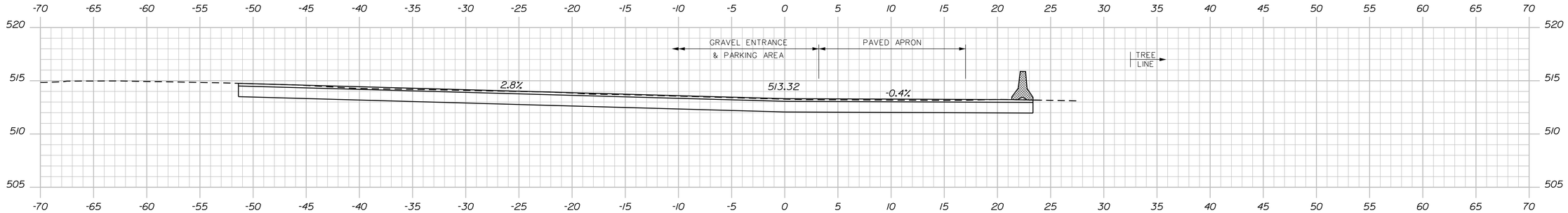
DETOUR LAYOUT

SHEET NUMBER
29
OF 37

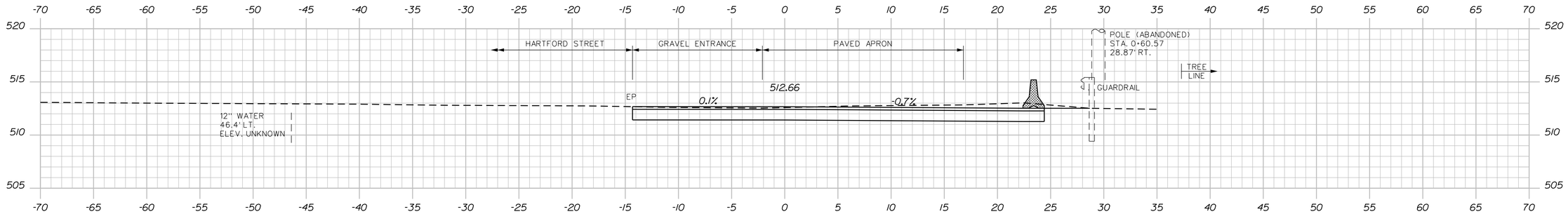
Filename: ...\TRAFFIC\MSTA\029_BDDetour2.dgn Division: HIGHWAY Username: Date:11/13/2015



SHEET NUMBER 30 OF 37	UPPER CANAL BRIDGE MILL CANAL (ANDROSCOGGIN RIVER) RUMFORD OXFORD COUNTY PROFILE - DETOUR	PROJ. MANAGER S. BODGE BY DATE DESIGN-DETAILED R. MYERS MRP CHECKED-REVIEWED DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION 19058.00 WIN BRIDGE NO. 5619 19058.00 BRIDGE PLANS



40+75.00



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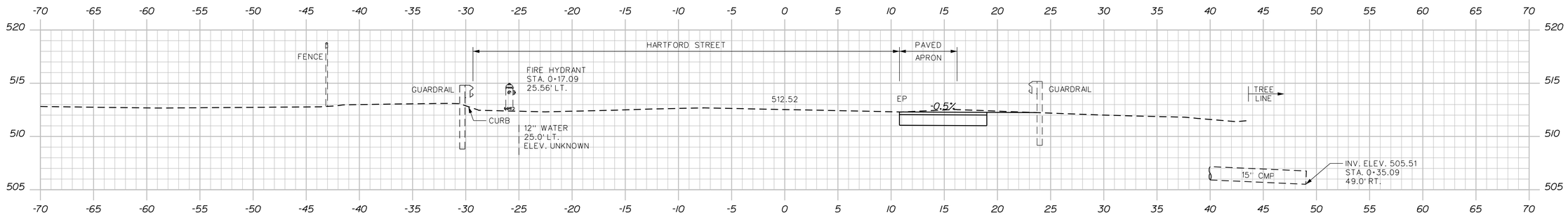

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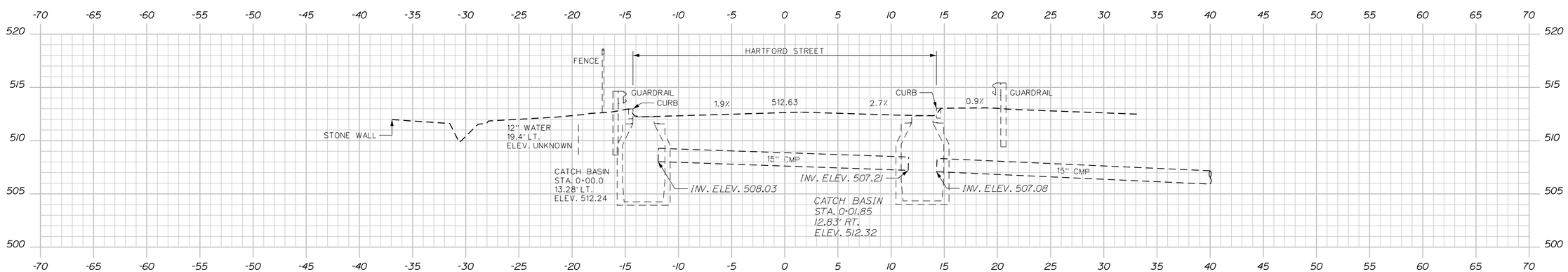


40+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 019058.00

BRIDGE NO. 5619

WIN 19058.00

BRIDGE PLANS

PROJ. MANAGER	STEVE BODGE	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

CROSS SECTIONS - DETOUR ROAD

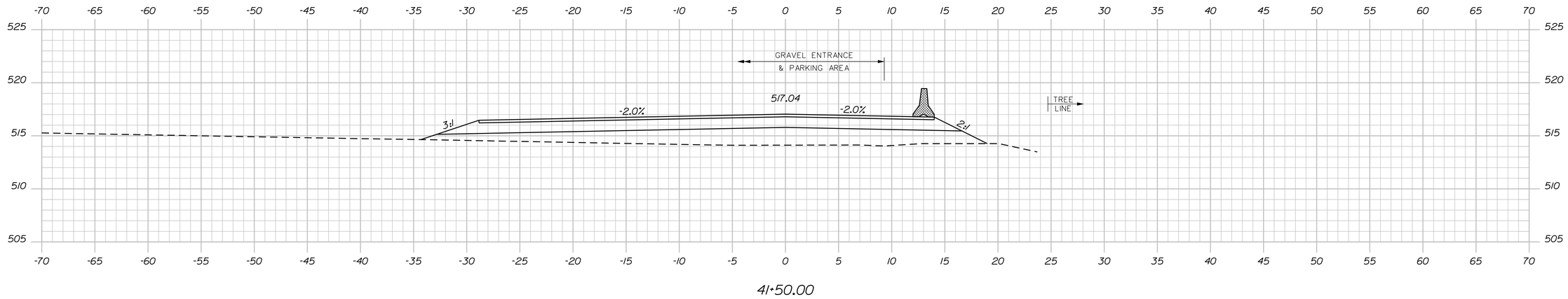
SHEET NUMBER

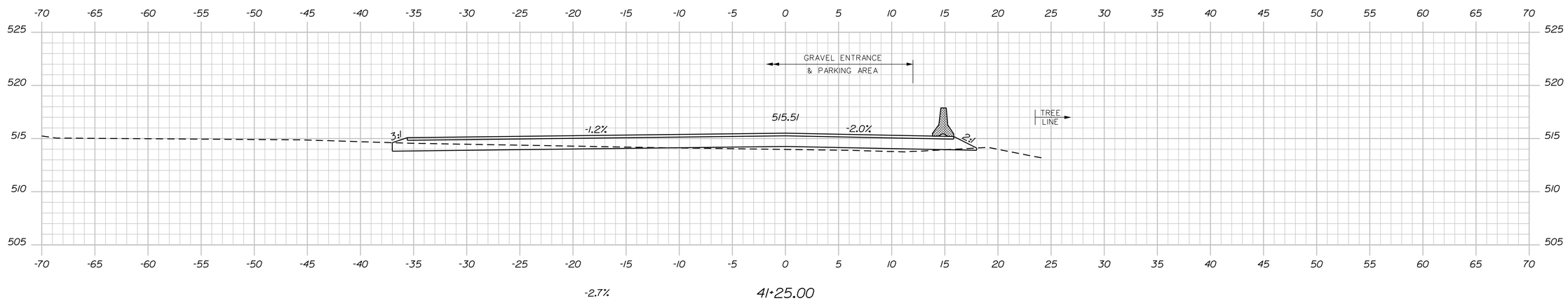
31

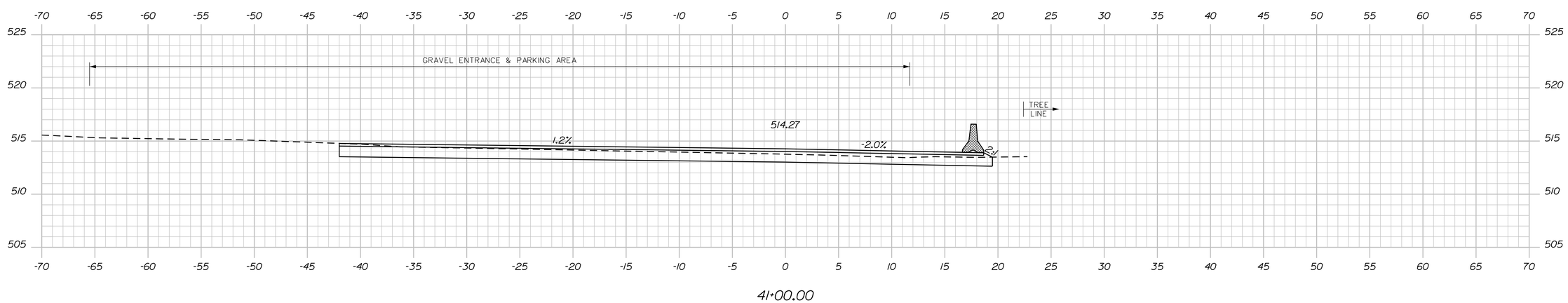
OF 37

Sta. 40+00.00 to Sta. 40+75.00

Filename: ...\MSTA\031_Xsect_Detour.dgn Division: HIGHWAY Username: Date:11/13/2015







Date:11/13/2015 Username: Division: HIGHWAY Filename: ...\MSTA\031_Xsect_Detour.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 019058.00

WIN 19058.00

BRIDGE NO. 5619 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

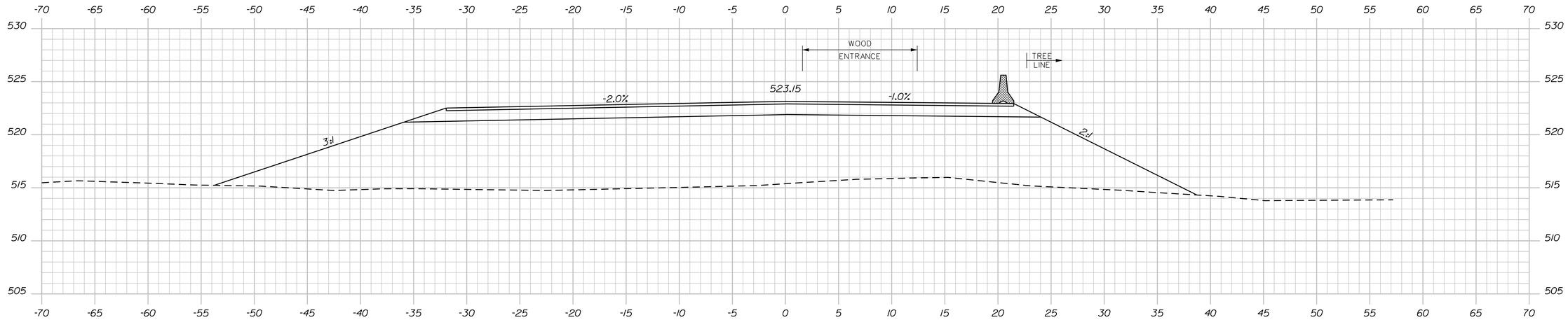
PROJ. MANAGER	STEVE BODGE	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

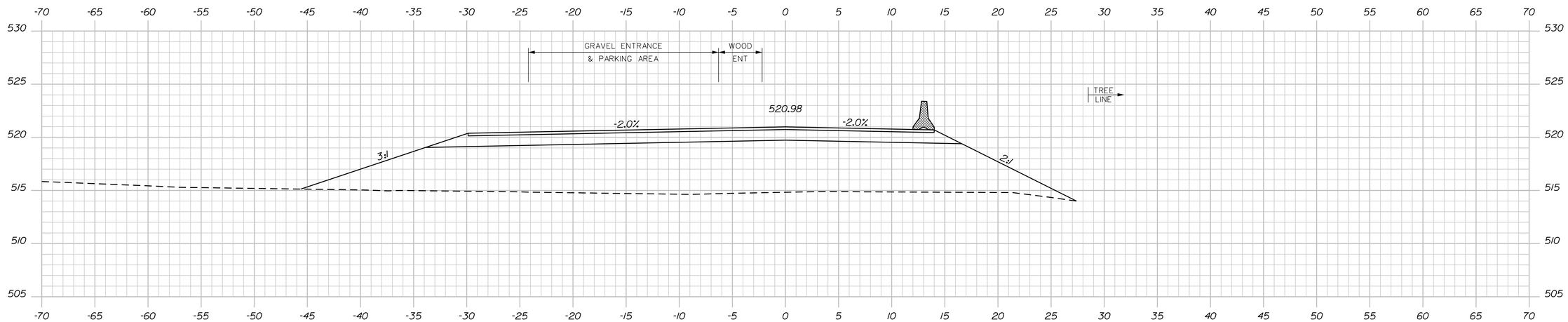
CROSS SECTIONS - DETOUR ROAD

SHEET NUMBER
32
OF 37

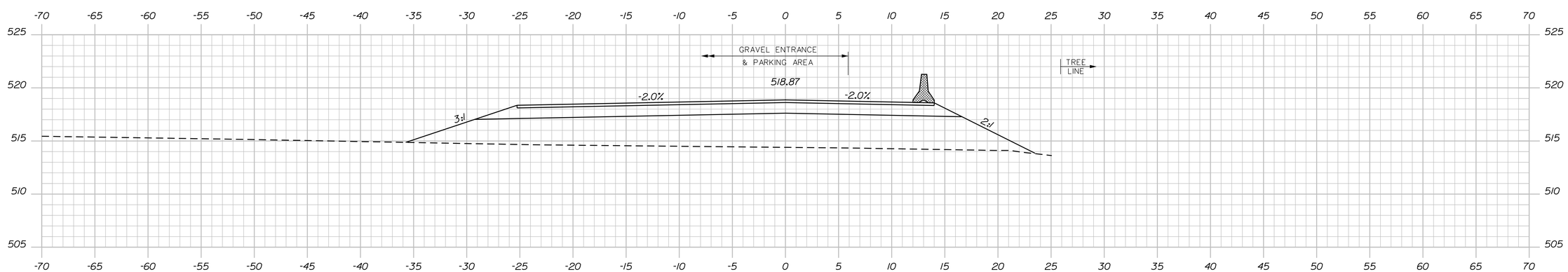
Sta. 41+00.00 to Sta. 41+50.00



42+25.00



42+00.00



41+75.00

Sta. 41+75.00 to Sta. 42+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 019058.00

WIN 19058.00

BRIDGE NO. 5619

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

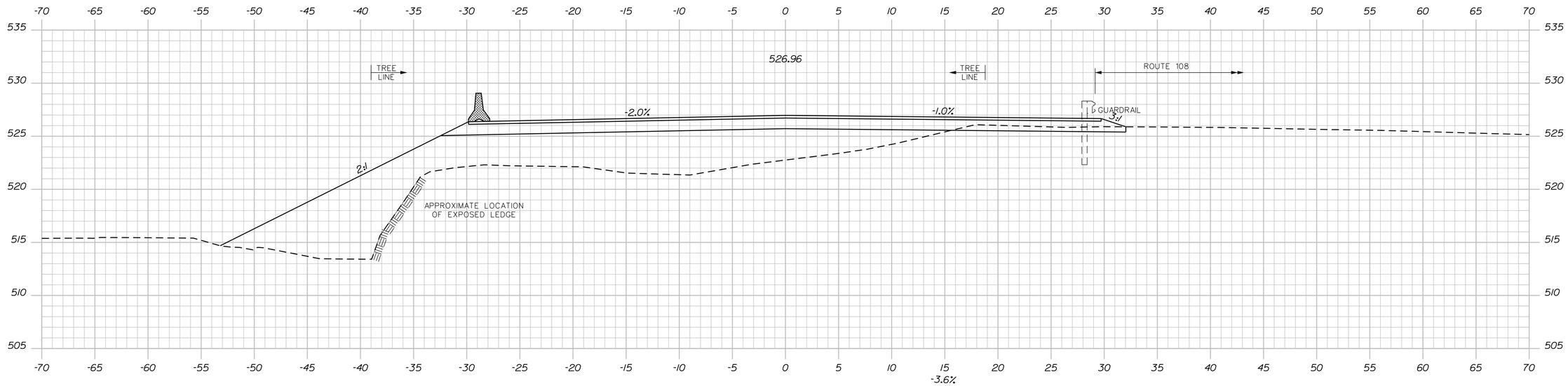
PROJ. MANAGER	STEVE BODGE	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

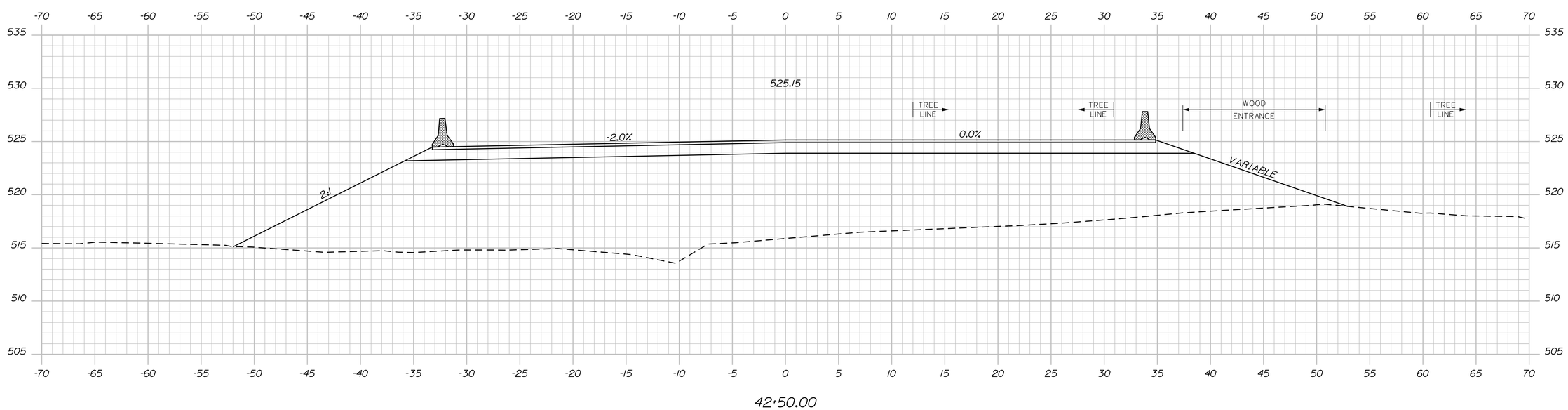
UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

CROSS SECTIONS - DETOUR ROAD

SHEET NUMBER
33
OF 37

Filename: ...\MSTA\031_Xsect_Detour.dgn Division: HIGHWAY Username: Date:11/13/2015





Sta. 42+50.00 to Sta. 42+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 019058.00

WIN 19058.00

BRIDGE NO. 5619

BRIDGE PLANS

PROJ. MANAGER	STEVE BODGE	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

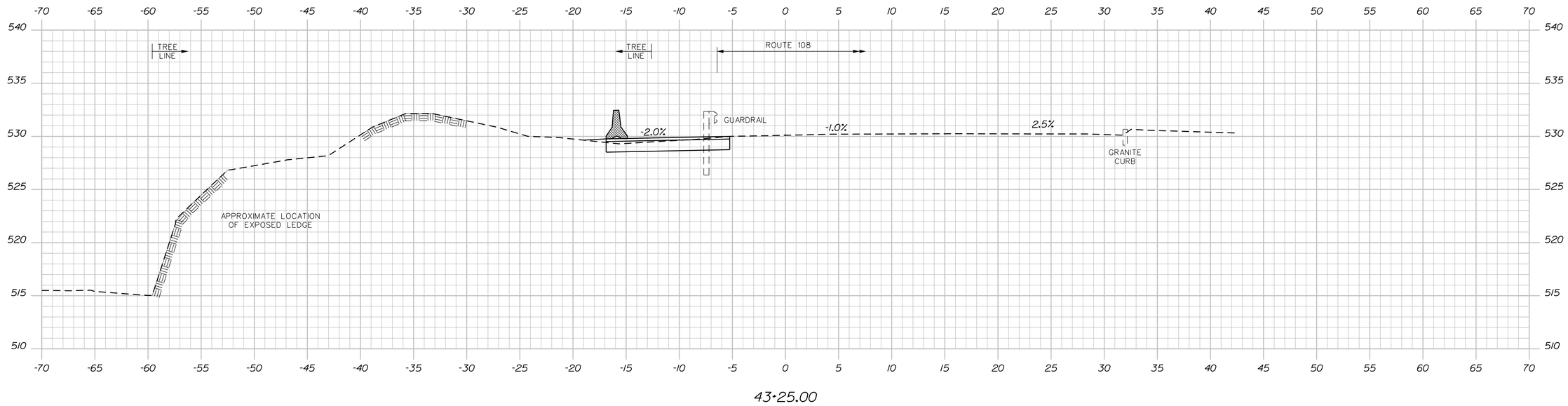
CROSS SECTIONS - DETOUR ROAD

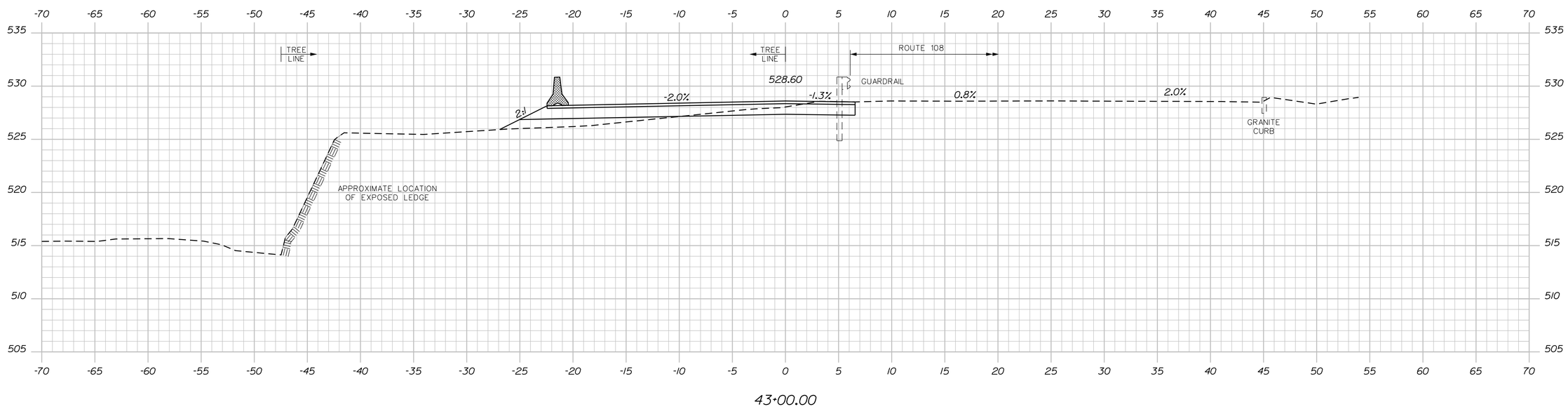
SHEET NUMBER

34

OF 37

Filename: ...\MSTA\031_Xsect_Detour.dgn Division: HIGHWAY Username: Date:11/13/2015





Sta. 43+00.00 to Sta. 43+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 019058.00

WIN 19058.00

BRIDGE NO. 5619

BRIDGE PLANS

PROJ. MANAGER	STEVE BODGE	BY	DATE
DESIGN-DETAILED	R. MYERS	MRP	
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

UPPER CANAL BRIDGE
MILL CANAL (ANDROSCOGGIN RIVER)
RUMFORD OXFORD COUNTY

CROSS SECTIONS - DETOUR ROAD

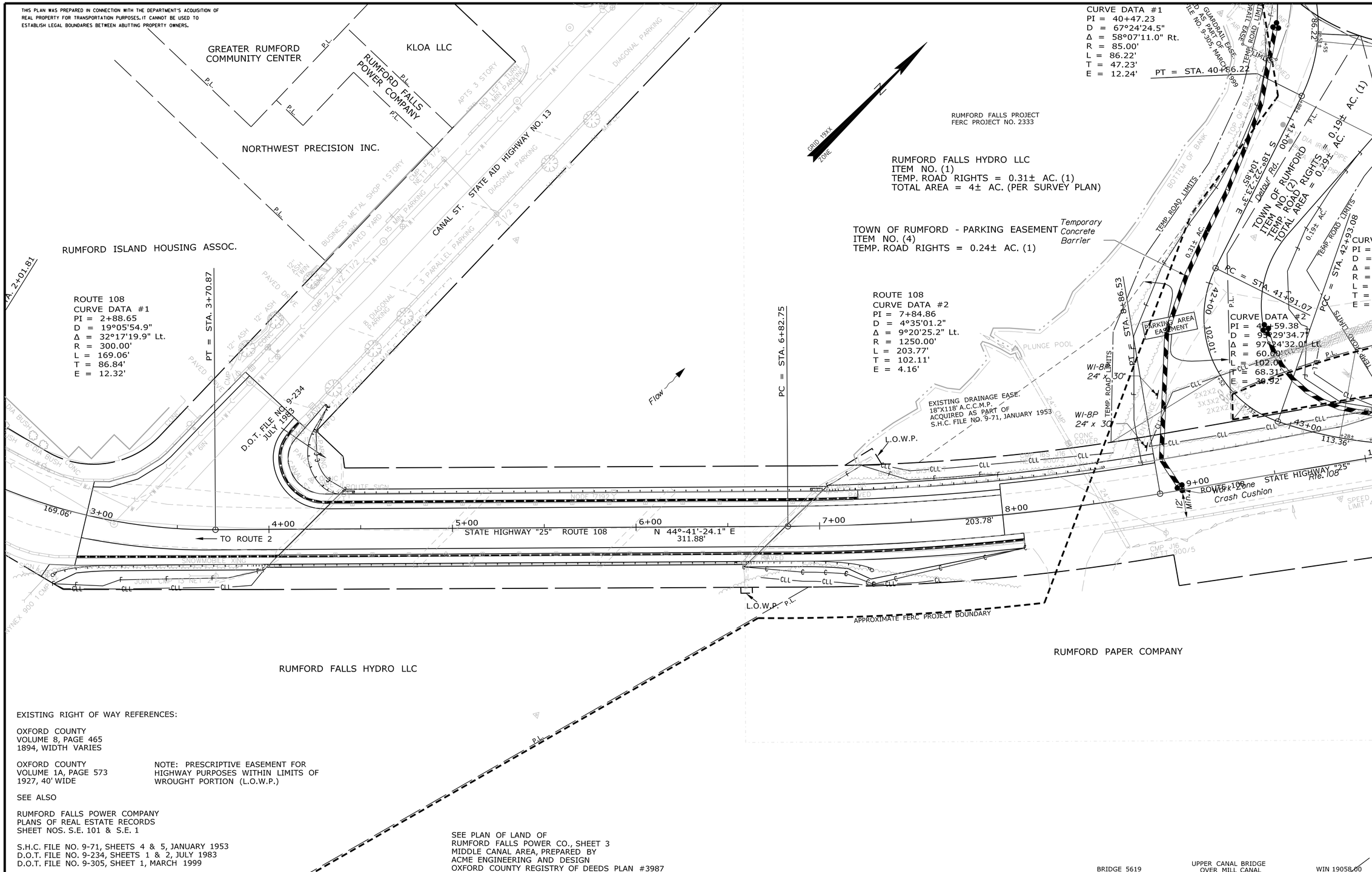
SHEET NUMBER

35

OF 37

Filename: ...\MSTA\031_Xsect_Detour.dgn Division: HIGHWAY Username: Date:11/13/2015

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.



EXISTING RIGHT OF WAY REFERENCES:

OXFORD COUNTY
VOLUME 8, PAGE 465
1894, WIDTH VARIES

OXFORD COUNTY
VOLUME 1A, PAGE 573
1927, 40' WIDE

NOTE: PRESCRIPTIVE EASEMENT FOR HIGHWAY PURPOSES WITHIN LIMITS OF WROUGHT PORTION (L.O.W.P.)

SEE ALSO

RUMFORD FALLS POWER COMPANY
PLANS OF REAL ESTATE RECORDS
SHEET NOS. S.E. 101 & S.E. 1

S.H.C. FILE NO. 9-71, SHEETS 4 & 5, JANUARY 1953
D.O.T. FILE NO. 9-234, SHEETS 1 & 2, JULY 1983
D.O.T. FILE NO. 9-305, SHEET 1, MARCH 1999

SEE PLAN OF LAND OF
RUMFORD FALLS POWER CO., SHEET 3
MIDDLE CANAL AREA, PREPARED BY
ACME ENGINEERING AND DESIGN
OXFORD COUNTY REGISTRY OF DEEDS PLAN #3987

BRIDGE 5619 — UPPER CANAL BRIDGE OVER MILL CANAL — WIN 19058.00

SYMBOLS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	PNS	
PROP. LINES	PNS	
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
RUMFORD
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

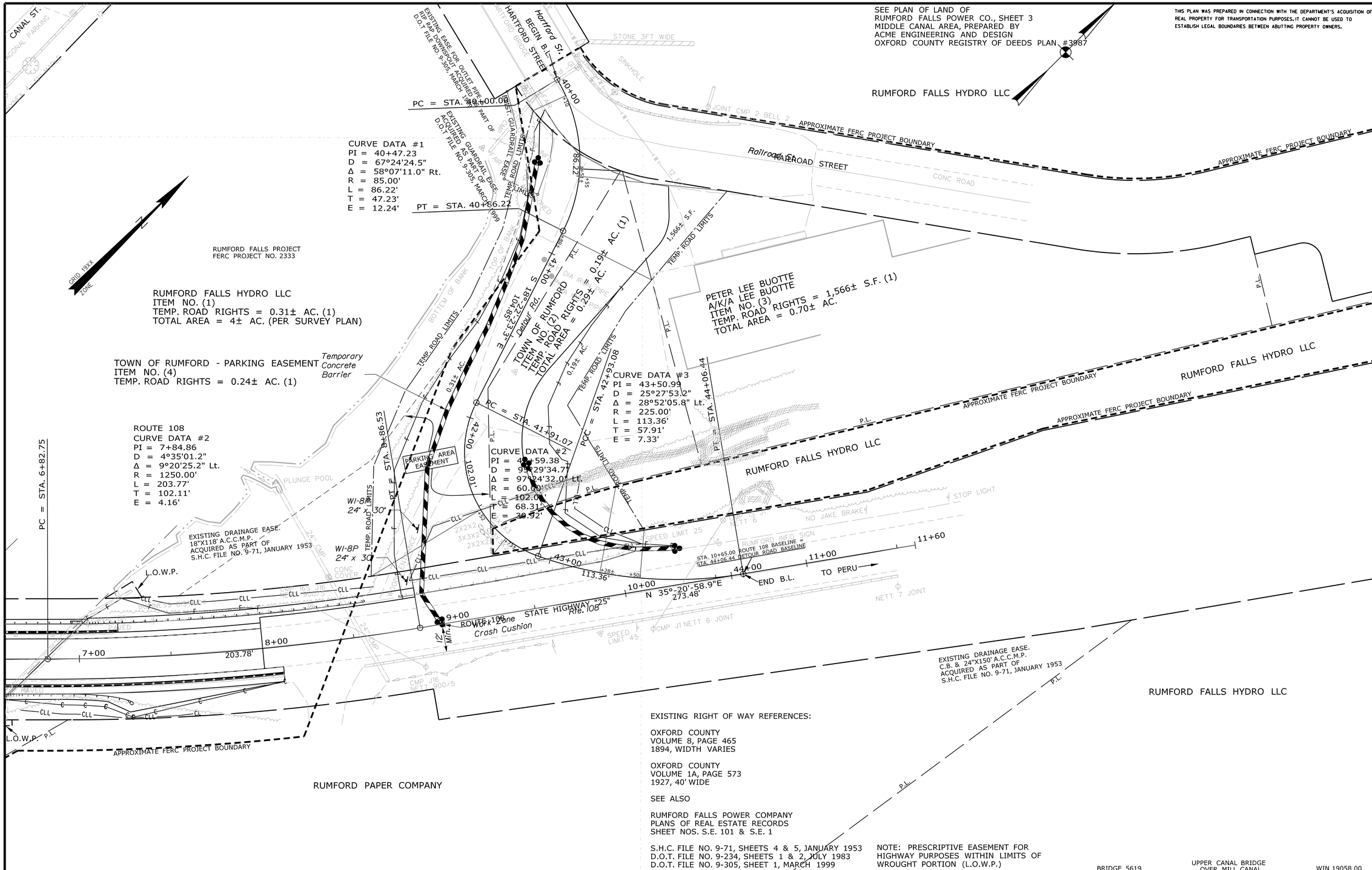
DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "25"
ROUTE 108
RUMFORD OXFORD COUNTY
STATE PROJECT NO. 019058.00

JUNE 2015 — RIGHT-OF-WAY MAP
SCALE 1" = 25' — SHEET 1 OF 2

SHEET NUMBER
36
OF 37

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: mark.poulin Date:12/7/2015



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VOLUME 8, PAGE 465
1894, WIDTH VARIES

OXFORD COUNTY
VOLUME 1A, PAGE 573
1927, 40' WIDE

SEE ALSO

RUMFORD FALLS POWER COMPANY
PLANS OF REAL ESTATE RECORDS
SHEET NOS. S.E. 101 & S.E. 1

S.H.C. FILE NO. 9-71, SHEETS 4 & 5, JANUARY 1953
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D.O.T. FILE NO. 9-305, SHEET 1, MARCH 1999

NOTE: PRESCRIPTIVE EASEMENT FOR HIGHWAY PURPOSES WITHIN LIMITS OF WROUGHT PORTION (L.O.W.P.)

BRIDGE 5619 — UPPER CANAL BRIDGE OVER MILL CANAL — WIN 19058.00

SYMBOLS

- IP or ●IPF (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- ⚓BM (TRAVERSE POINT)
- WELL
- GROUNDING UNIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- LIMITS OF PARCEL RIGHT TO PORTION (L.O.W.P.)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	PNS	
PROP. LINES	PNS	
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016

RUMFORD
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER

DATE

STATE HIGHWAY "25"
ROUTE 108
RUMFORD OXFORD COUNTY
STATE PROJECT NO. 019058.00

JUNE 2015 | RIGHT-OF-WAY MAP
SCALE 1" = 25' | SHEET 2 OF 2

SHEET NUMBER
37
OF 37

Filename: ...\00\ROW\MSTA\002_RWPLAN2.dgn Division: BRIDGE Username: mark.poulin Date:12/7/2015