

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

DESIGN LOADING

Live Load HL - 93 Maine Legal Loads

MATERIALS

Concrete: All Class "A"

Reinforcing: Plain Reinforcing Steel ASTM A615, Grade 60

BASIC DESIGN STRESSES

Concrete: Class "A" $f'c = 4,000$ psi

Reinforcing: Plain Reinforcing Steel $f_y = 60,000$ psi

RICHMOND-LITCHFIELD KENNEBEC & SAGADAHOC COUNTY THOROUGHFARE BRIDGE OVER PLEASANT POND THOROFARE ROAD FEDERAL AID PROJECT NO. 2365500 PROJECT LENGTH 0.104 mi. BRIDGE NO. 3925

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TRAFFIC DATA

Current (2020) AADT	850
Future (2040) AADT	1020
DHV - % of AADT	13
Design Hour Volume	133
Heavy Trucks (% of AADT)	8
Heavy Trucks (% of DHV)	5
Directional Distribution (% of DHV)	61
18 kip Equivalent P 2.0	32
18 kip Equivalent P 2.5	30
Design Speed (mph)	Not Posted

MAINTENANCE OF TRAFFIC

Bridge will be closed to traffic during construction with traffic detour.

PROJECT LOCATION	Thoroughfare Bridge (Thorofare Road) over Pleasant Pond on the Litchfield-Richmond town line. Lat./Long. 44°08'41.2" N 69°53'02.0" W
PROGRAM AREA	Highway Bridge - Traditional
OUTLINE OF WORK	Bridge Deck Replacement

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER: <i>[Signature]</i>	11-21-22
	CHIEF ENGINEER: <i>[Signature]</i>	11-16-22

STATE OF MAINE
PROFESSIONAL ENGINEER
GARRETT A. GUSTAFSON
13653
11-16-22

PROGRAM	BRIDGE
PROJECT MANAGER	T. BEAULIEU
DESIGNER	M. GRAY
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 023655.00

RICHMOND-LITCHFIELD
THOROUGHFARE BRIDGE
TITLE SHEET

SHEET NUMBER
1
OF 30

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User: Jeremiah.Brunelle
Date: 11/16/2022

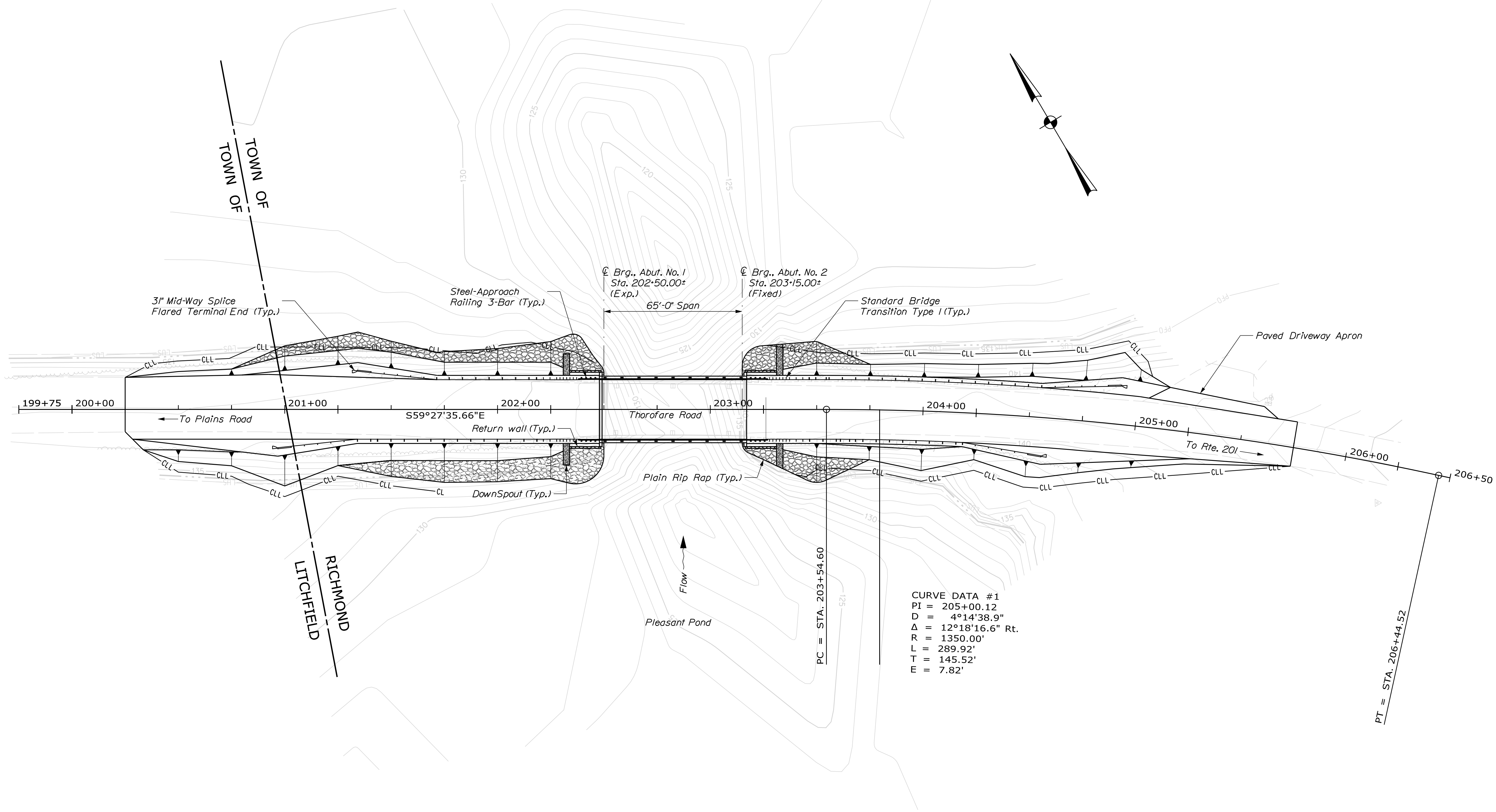
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) (56 CY)	1	LS
202.121	REMOVING EXISTING STRUCTURAL CONCRETE (4 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	700	SY
203.20	COMMON EXCAVATION	846	CY
203.24	COMMON BORROW	50	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	909	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	144	T
403.209	HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, ISLANDS, & INCIDENTALS)	4	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	128	T
409.15	BITUMINOUS TACK COAT - APPLIED	70	G
501.301	STEEL SHEET PILING (866 SF)	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (5 CY)	1	LS
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGE (65 CY)	1	LS
502.291	SAW CUT GROOVING (1,937 SF)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (6 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	19,500	LB
503.13	REINFORCING STEEL, PLACING	19,500	LB
505.08	SHEAR CONNECTORS (984 EA)	1	LS
507.0821	STEEL BRIDGE RAILING, 3 BAR (138 LF)	1	LS
507.0822	STEEL APPROACH RAILING, 3-BAR	4	EA
511.07	COFFERDAM: (ABUTMENT NO. 1)	1	LS
511.07	COFFERDAM: (ABUTMENT NO.2)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (290 SY)	1	LS
526.301	PORTABLE CONCRETE BARRIER TYPE 1 (40 LF)	1	LS
606.1301	3" W-BM GR, MID-WAY SPLICE-SGL FACED	313	LF
606.1305	3" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	4	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
610.08	PLAIN RIPRAP	415	CY
610.18	STONE DITCH PROTECTION	10	CY
613.319	EROSION CONTROL BLANKET	69	SY
615.07	LOAM	30	CY
618.14	SEEDING METHOD NUMBER 2	5	UN
619.12	MULCH	5	UN
619.14	EROSION CONTROL MIX	60	CY
620.58	EROSION CONTROL GEOTEXTILE	703	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	1,650	LF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.14	GRADER (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.312	TYPE III BARRICADE	6	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	500	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (90 CD)	1	LS
652.38	FLAGGER	100	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

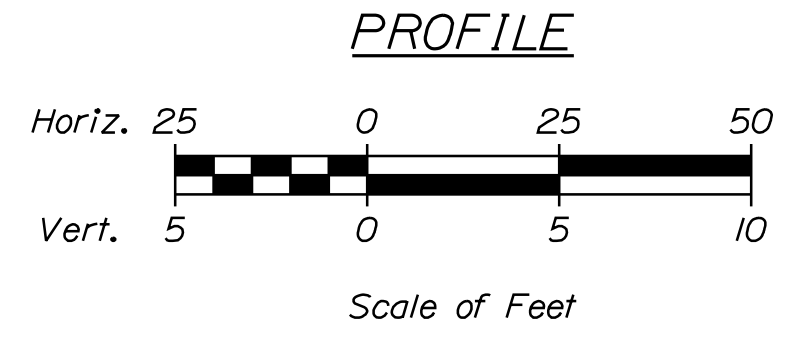
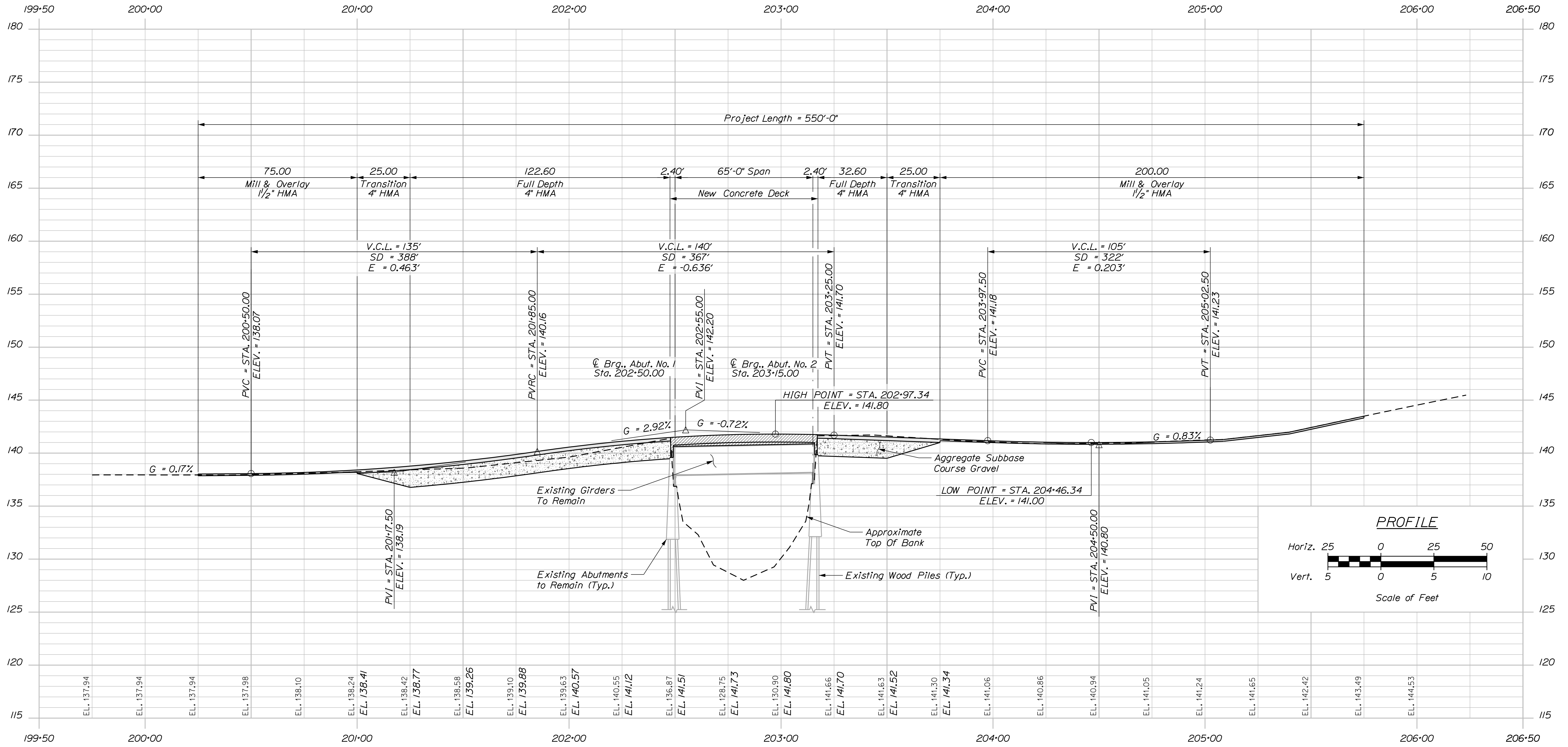
- During construction, the bridge will be closed to traffic for a time period specified in the Special Provisions.
- For easements, construction limits and right of way lines, refer to Right of Way Map.
- The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.
- Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
- 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.
- All embankment material, except as otherwise shown, placed below EL. 134 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
- Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. Payment for hand raking will be considered incidental to Item No. 304.10, Aggregate Subbase Course - Gravel.
- Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
- Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under Item No. 619.14, Erosion Control Mix.
- Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
- Guardrail posts as shown in the Standard Details shall be modified from the indicated length of 7 feet to a length of 8 feet with an embedment of 4.5 feet. Payment will be considered incidental to the guardrail pay items.
- Extended-use Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract items.
- Protective Coating for Concrete Surfaces shall be applied to the following areas:
 All exposed surfaces of concrete curbs and sidewalks,
 Fascias down to the drip notch,
 Concrete wearing surfaces,
 Top of abutment backwalls and to one foot below
 All exposed concrete abutments and wingwall

- Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>.
- 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.
- 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 MaineDOT provided estimated quantities, except as follows:
 - If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.
 - If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.
 - 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.
- Item 502.291 "Saw Cut Grooving" shall be performed with groves extending in the longitudinal direction of the bridge.

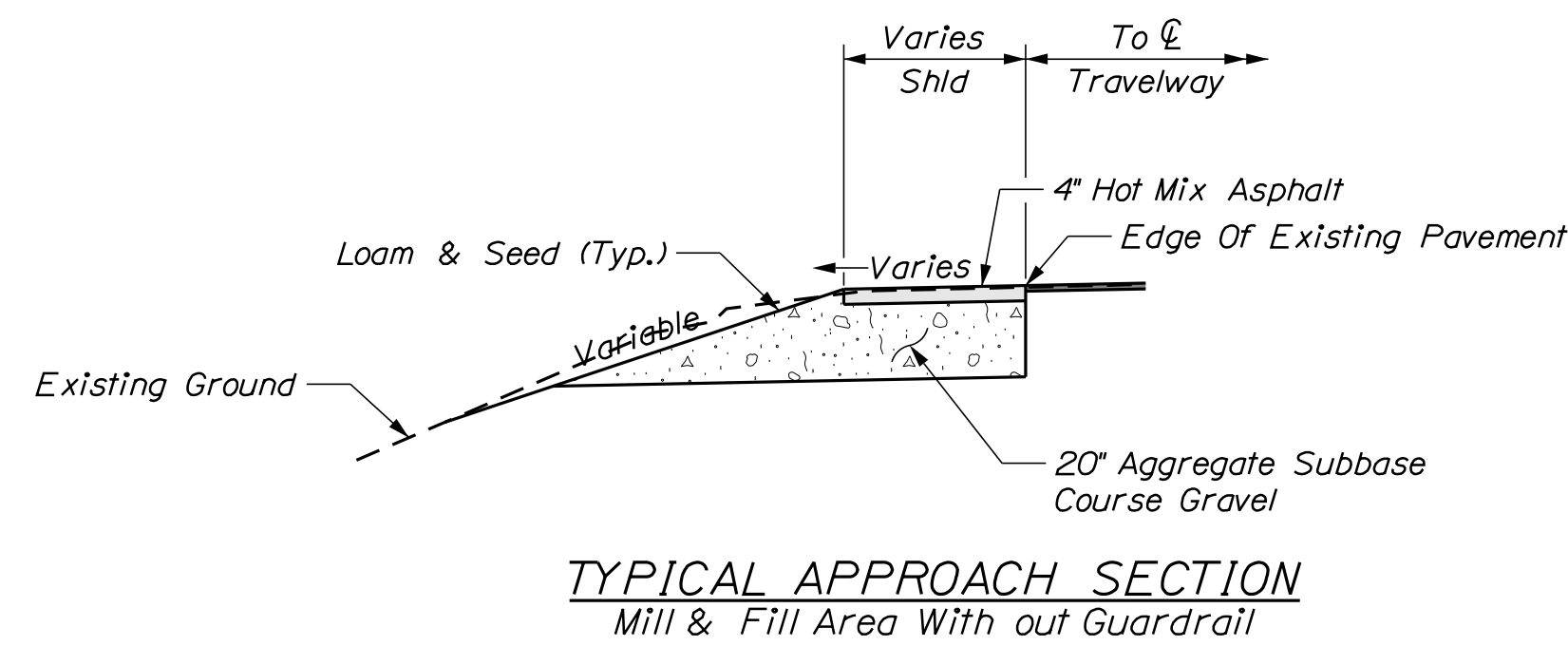
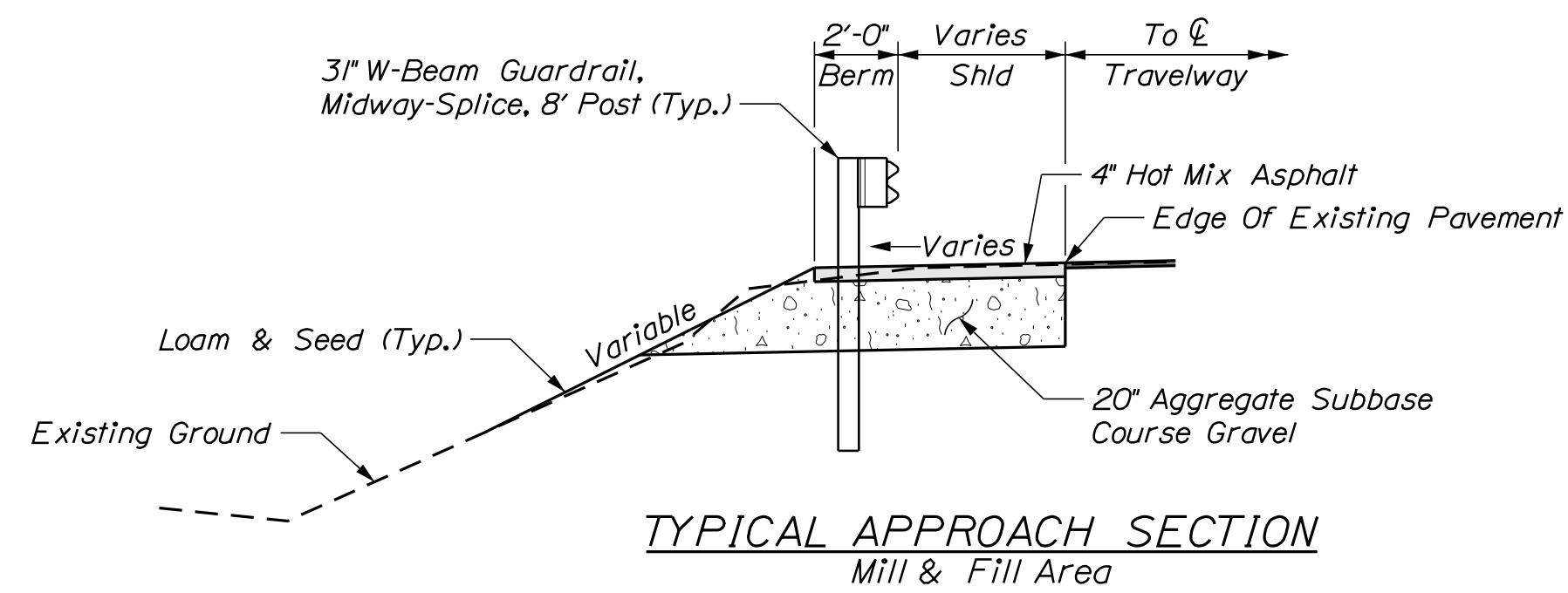
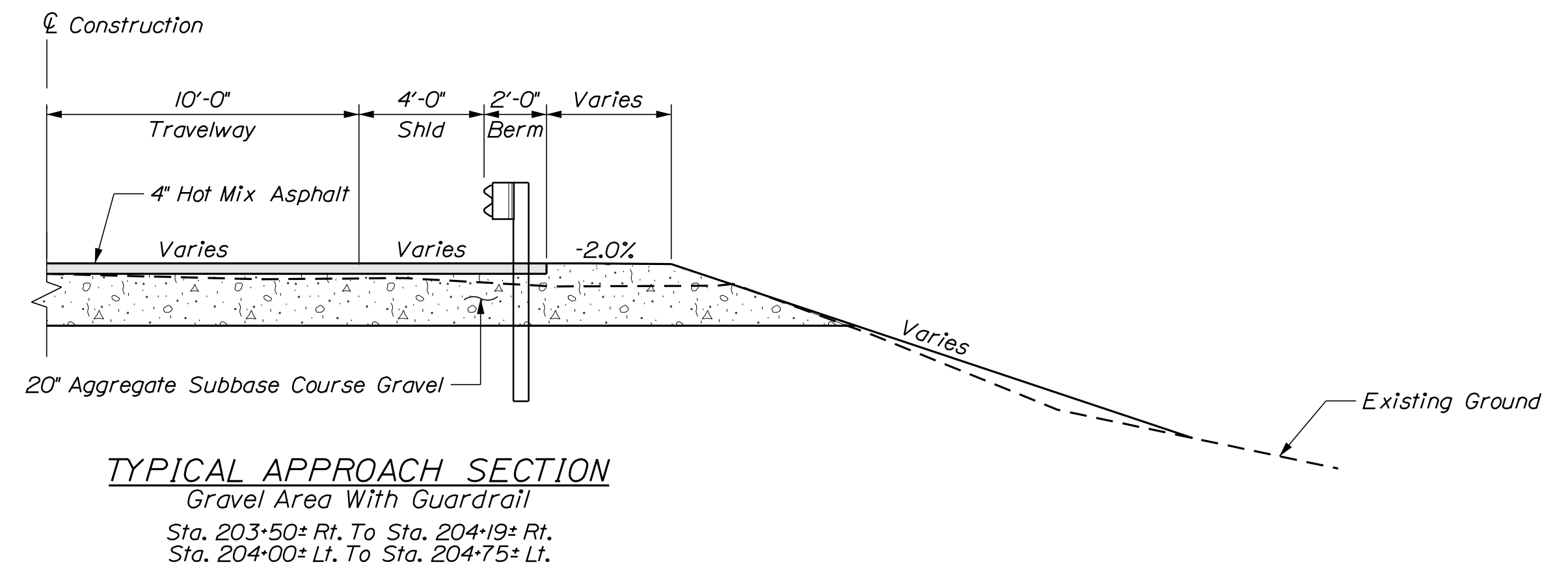
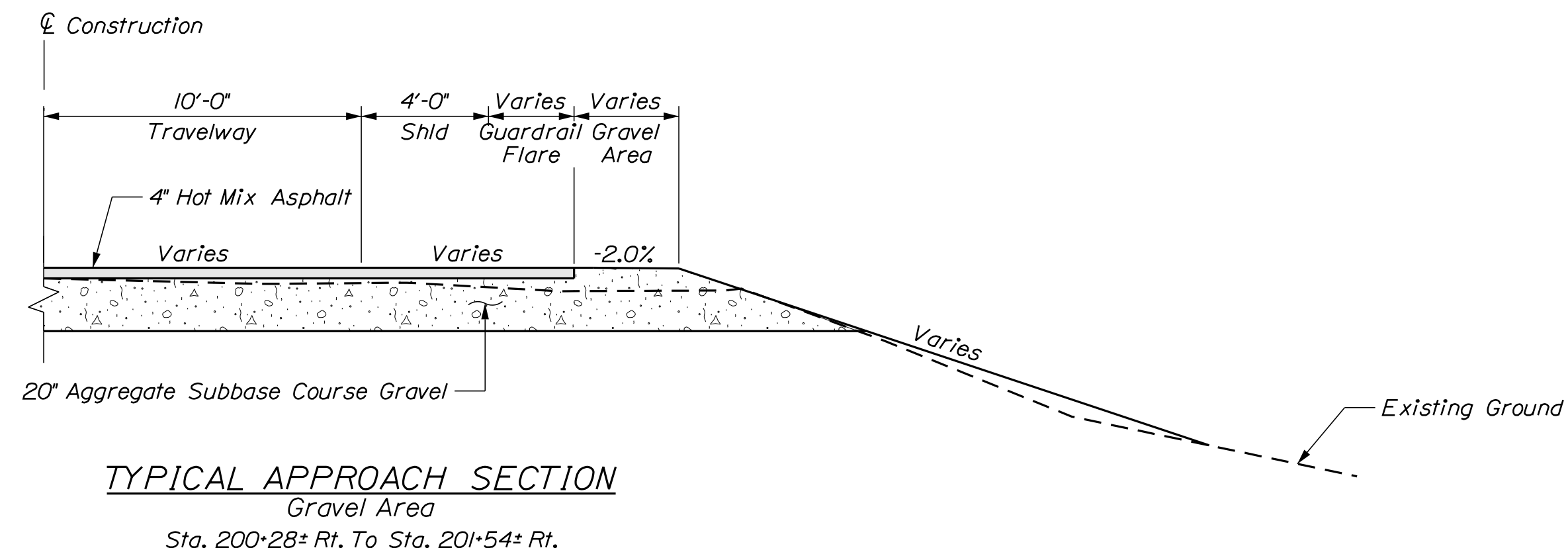
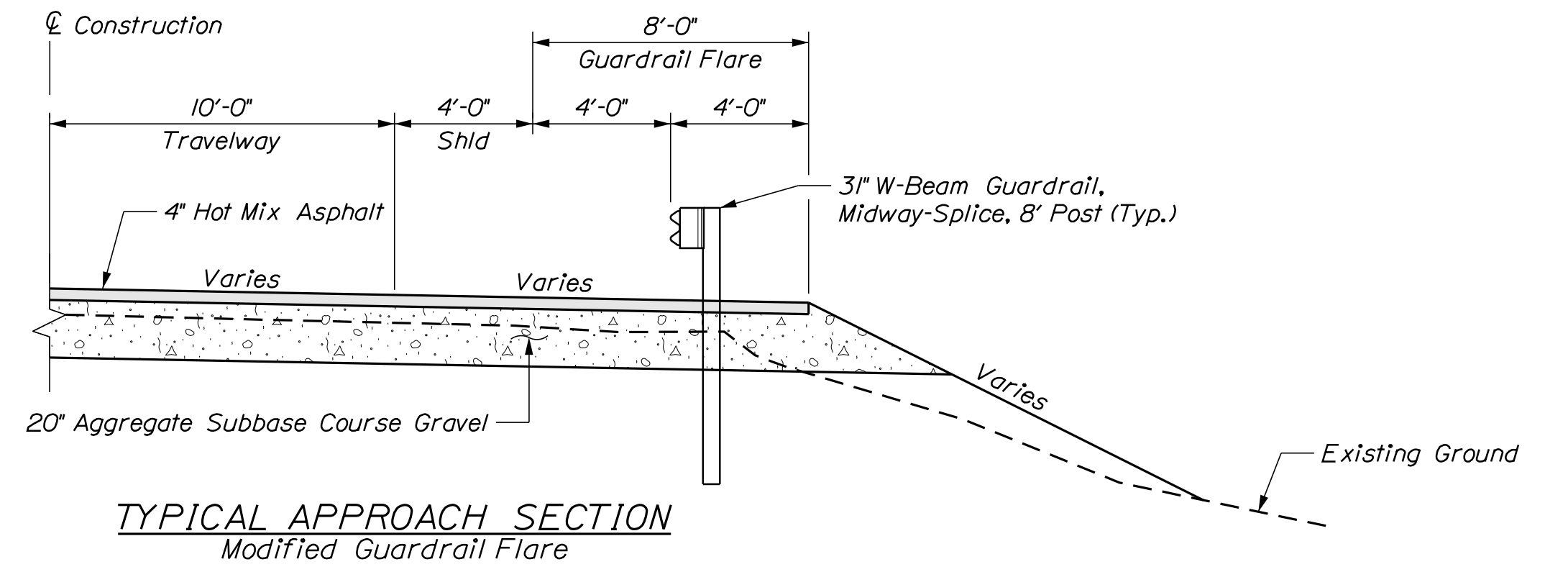
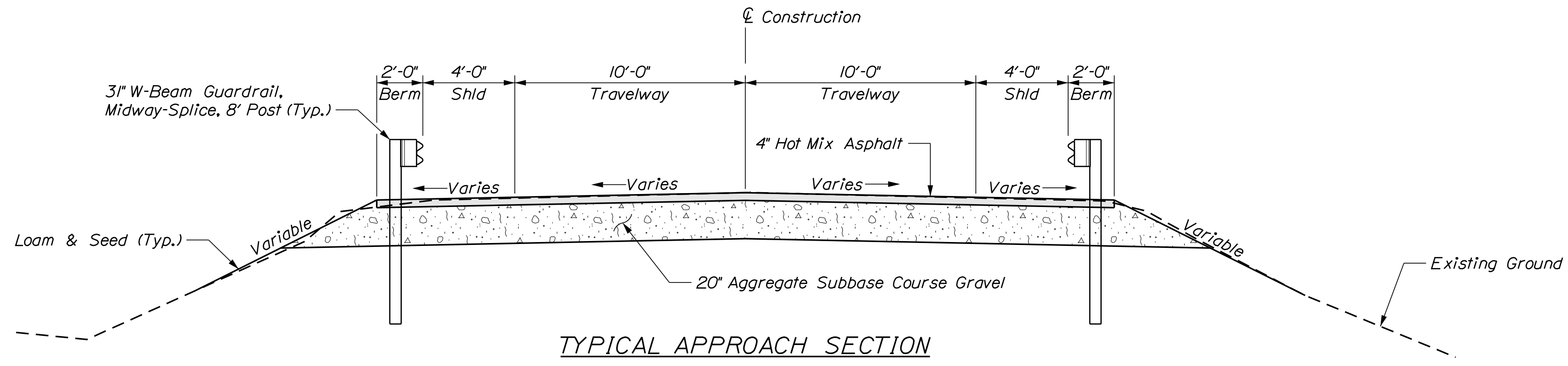
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THOROUGHFARE BRIDGE				PLEASANT POND				RICHMOND-LITCHFIELD KENNEBEC & SAGadahoc COUNTY					
ESTIMATED QUANTITIES & GENERAL NOTES				SHEET NUMBER				2					
OF 30													



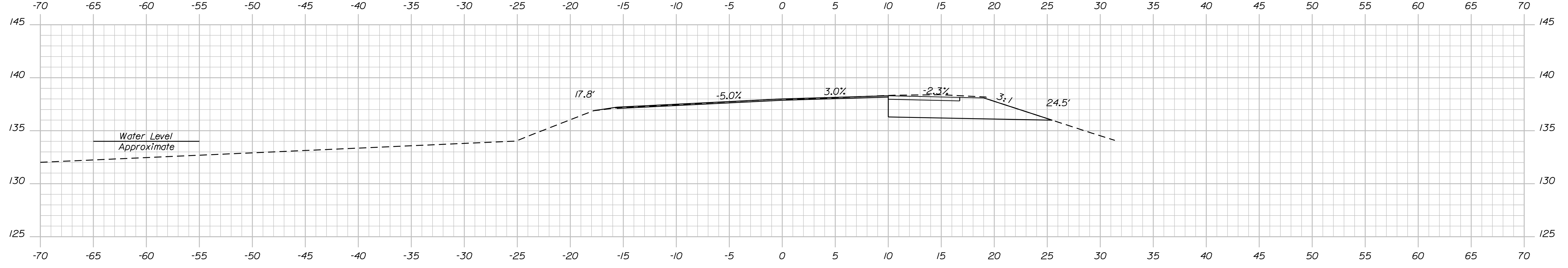
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PROJ. MANAGER	T. BEAULIEU	BY	M.P.
DESIGN-DETAILED	M. GRAY	DATE	10-2022
CHECKED-REVIEWED	R. NODUS	DATE	11-2022
DESIGN-DETAILED	J. BRUNELLE	SIGNATURE	
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REVISIONS 2		DATE	
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REVISIONS 4			
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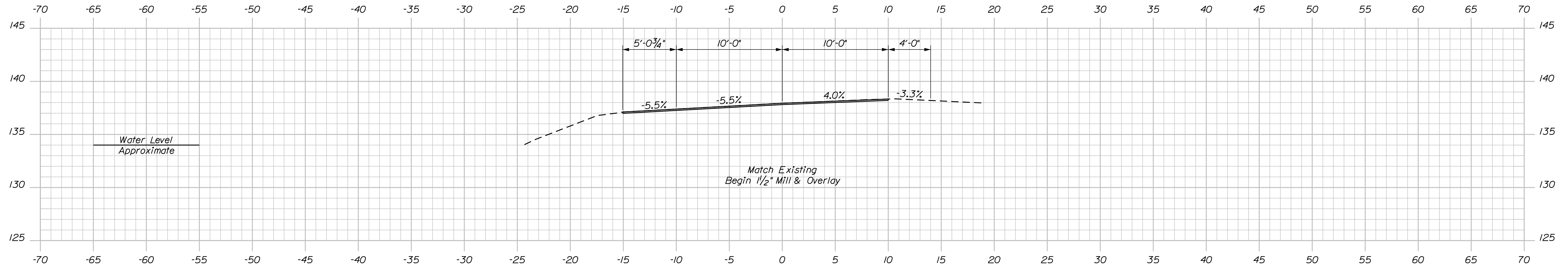
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PROJ. MANAGER	T. BEAULIEU	BY	
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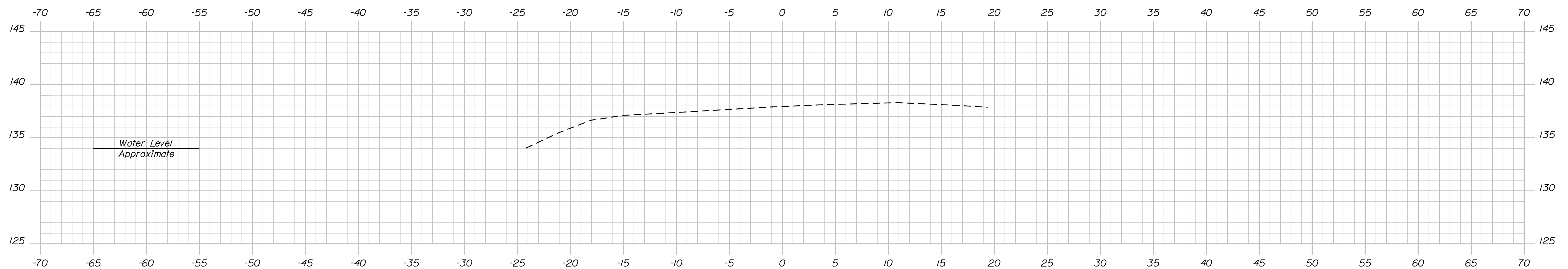
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DESIGN DETAILED			SIGNATURE
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FIELD CHANGES			



200+50.00



200+25.00



200+00.00

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 2365500
 WIN 023655.00
 BRIDGE NO. 3925
 HIGHWAY PLANS

PROJ. MANAGER
 DESIGN-DETAILED
 CHECKED-REVIEWED
 DESIGNS-DETAILED
 REVISIONS 1
 REVISIONS 2
 REVISIONS 3
 REVISIONS 4
 FIELD CHANGES

T. BEAULIE
 M.P.
 J. BRUNELLE

DATE
 10-2022
 11-2022

SIGNATURE
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THOROUGHFARE BRIDGE
 PLEASANT POND
 RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES

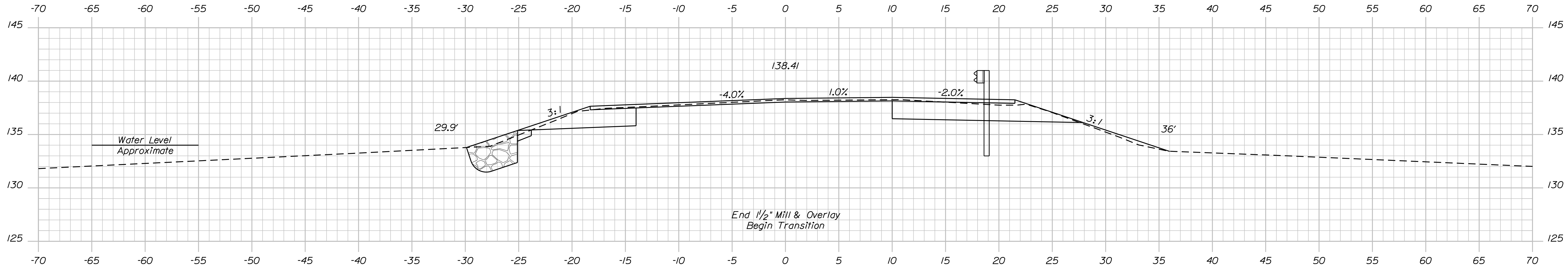
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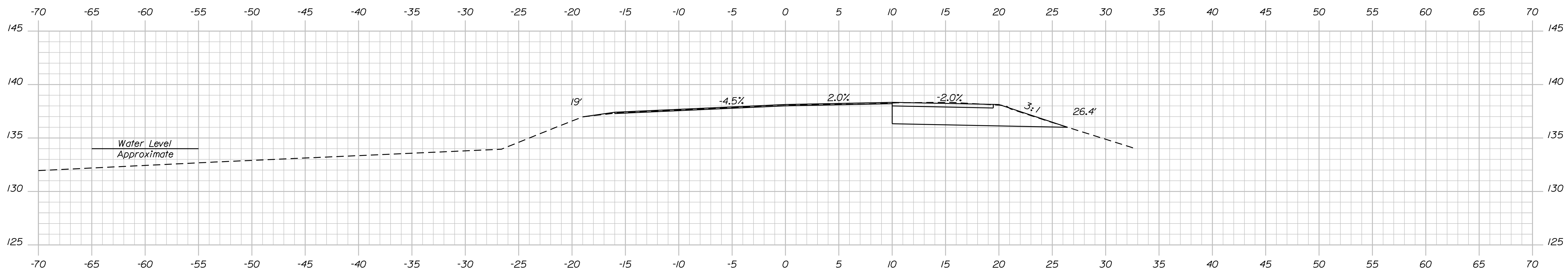
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201+00.00

Sta. 200+97.75, 18' Rt. To Sta. 201+34.04, 14' Rt.
Install 31" W-Beam Guardrail- Mid-Way-Splice Flared Terminal



200+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365500

WIN

BRIDGE NO. 3925

023655.00

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

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10-2022

10-2022

MRP

MAC

T. BEAULIE

M. GRAY

R. NAQUIS

DESIGN DETAILED

CHECKED-REVIEWED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES

CROSS SECTIONS

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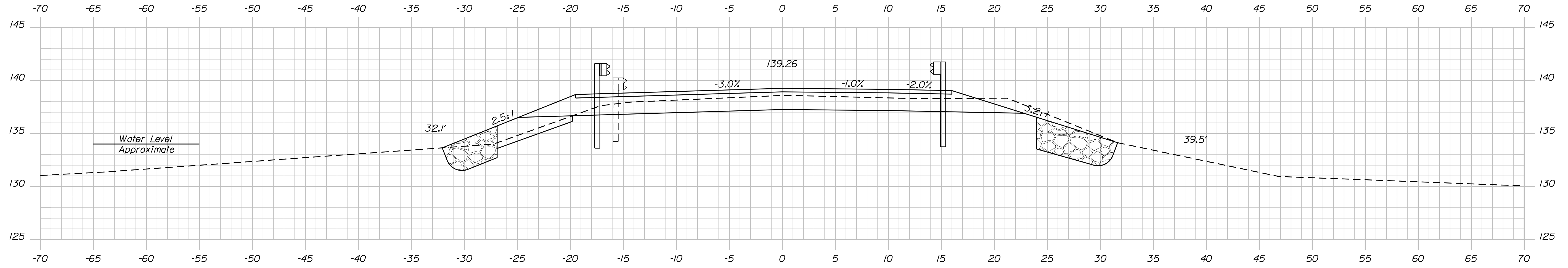
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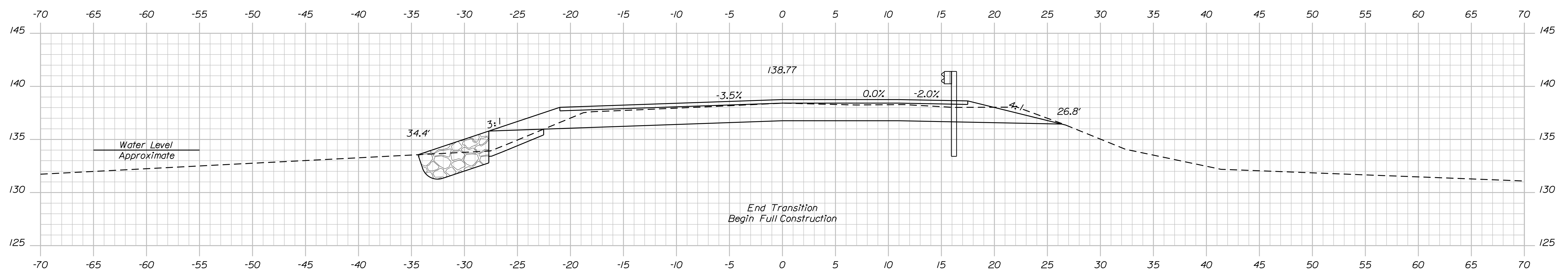
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Division: BRIDGE

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Sta. 201+34.25, 18' Lt. To Sta. 201+71.50, 14' Lt.
 Install 31" W-Beam Guardrail- Mid-Way-Splice Flared Terminal
 201+50.00



End Transition
 Begin Full Construction
 201+25.00
 Sta. 201+34.00, 14' Rt. To Sta. 202+18.25, 14' Rt.
 Install 31" W-Beam Guardrail- Mid-Way-Splice

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 2365500
 WIN 023655.00
 BRIDGE NO. 3925 HIGHWAY PLANS

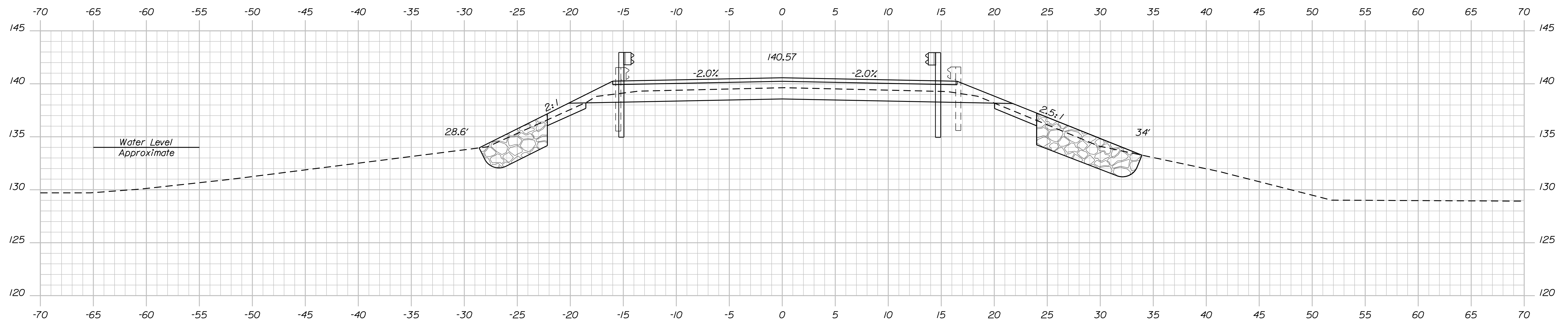
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 BY: J. BRUNELLE
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PROJ. MANAGER	T. BEAULIE	BY	DATE
DESIGN-DETAILED	M. GRAY	MRP	10-2022
CHECKED-REVIEWED	R. NAOUS	J. BRUNELLE	11-2022
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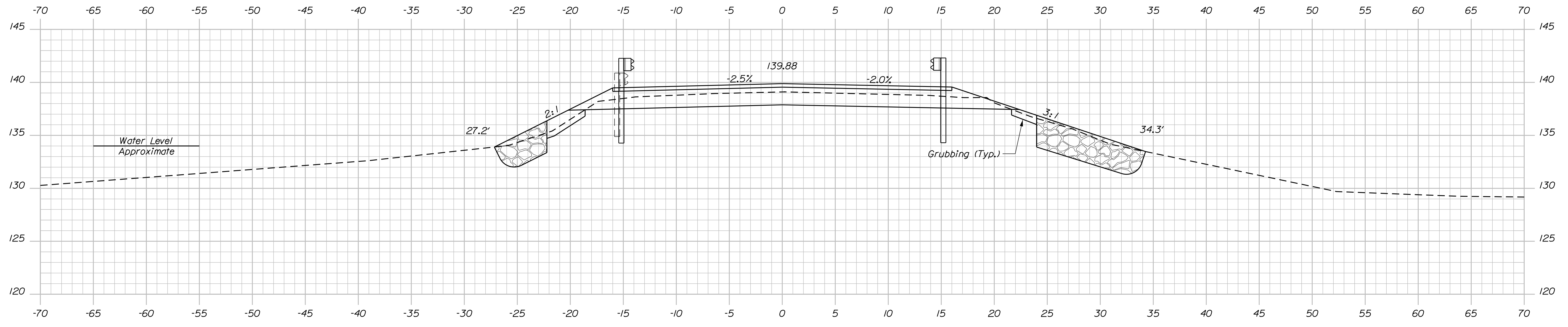
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 RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
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 Username: Jeremiah.Brunelle
 Date: 11/16/2022



202+00.00



Sta. 201+71.50, 14' Lt. To Sta. 202+18.25, 14' Lt.
 Install 3" W-Beam Guardrail- Mid-Way-Splice
 201+75.00

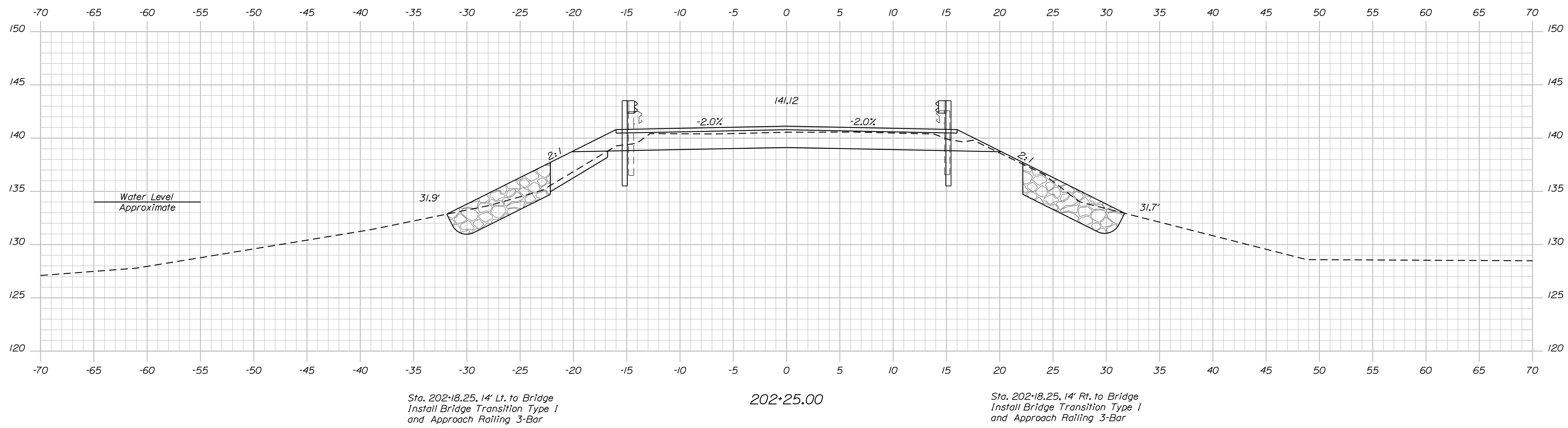
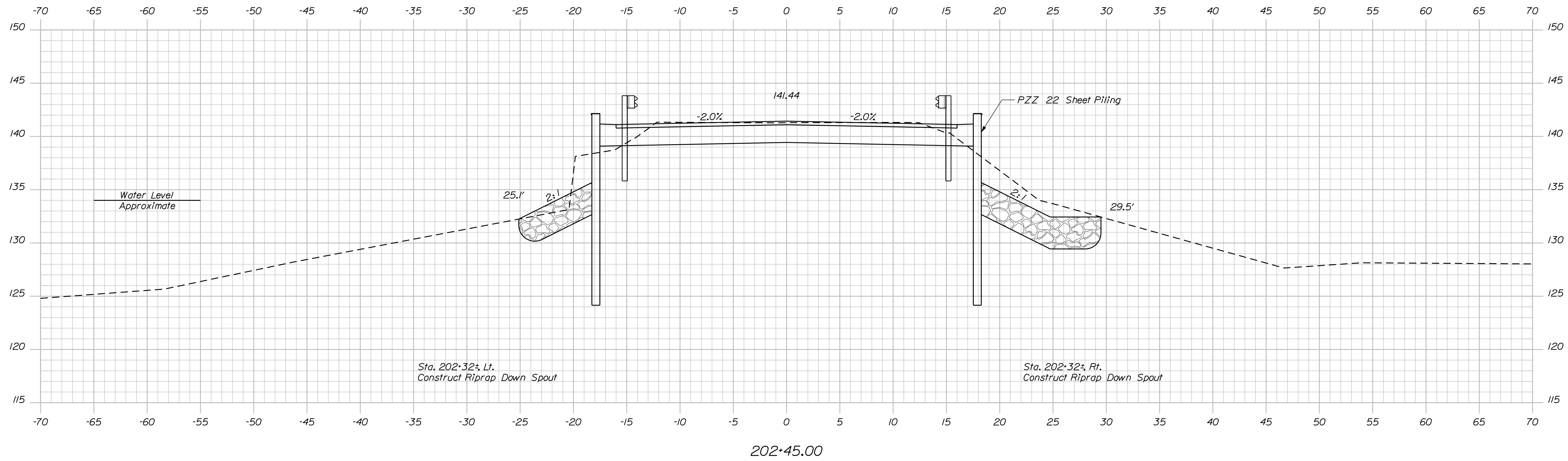
STATE OF MAINE
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DESIGNER: M. GRAY
 CHECKED: J. BRUNELLE
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PROJ. MANAGER	BY	DATE
T. BEAULIE	J. BRUNELLE	11-2022
DESIGN DETAILED	MRP	10-2022
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THOROUGHFARE BRIDGE
 PLEASANT POND
 RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
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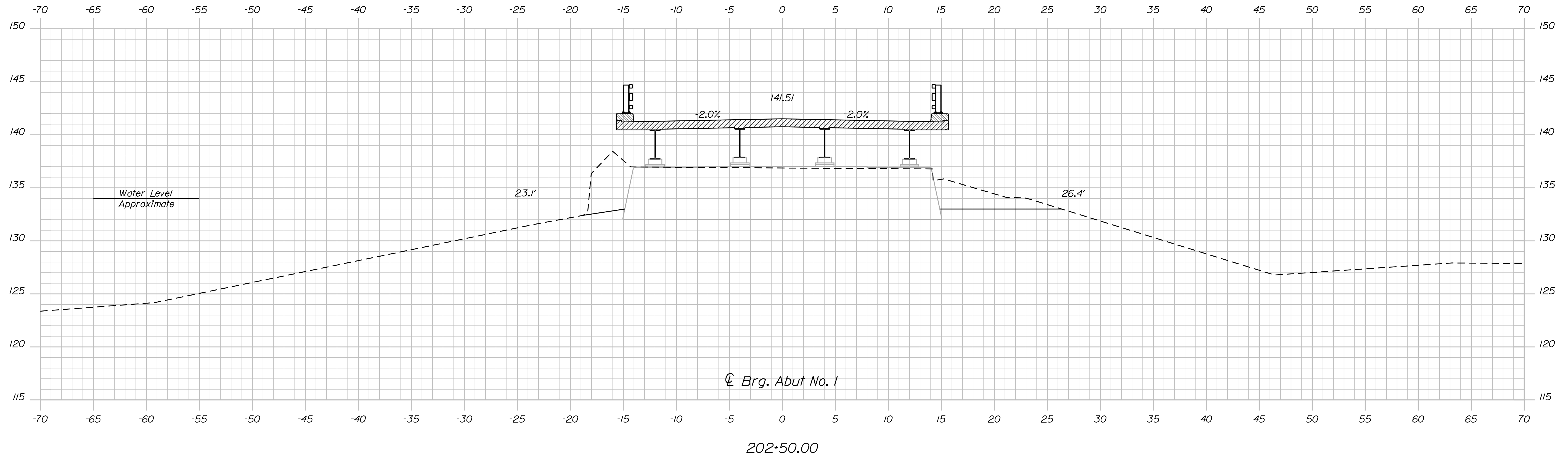
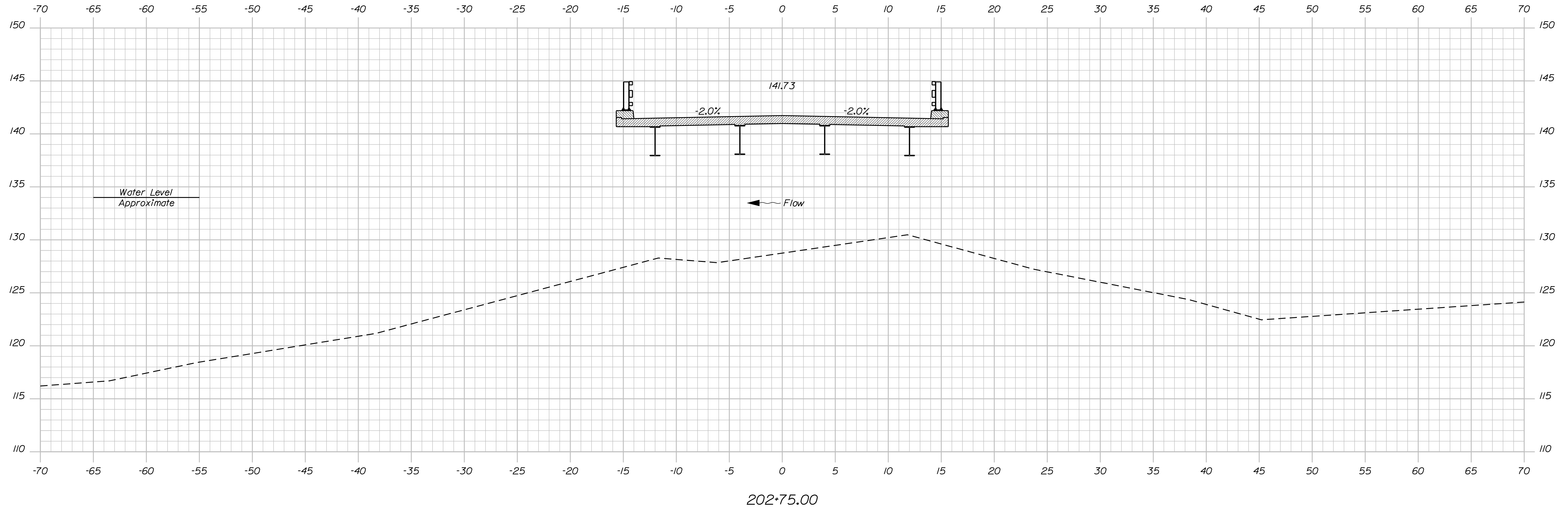


STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365500	
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Division: BRIDGE

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STATE OF MAINE
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2365500
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023655.00
BRIDGE NO. 3925
HIGHWAY PLANS

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MAC

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BY

DATE

SIGNATURE

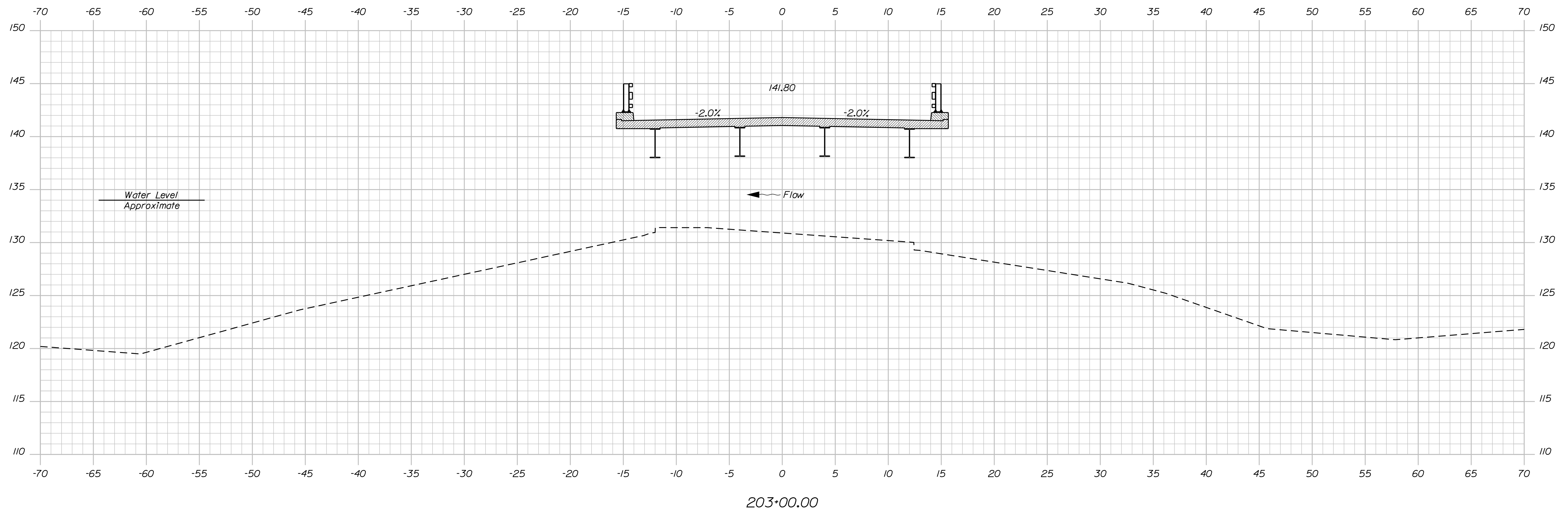
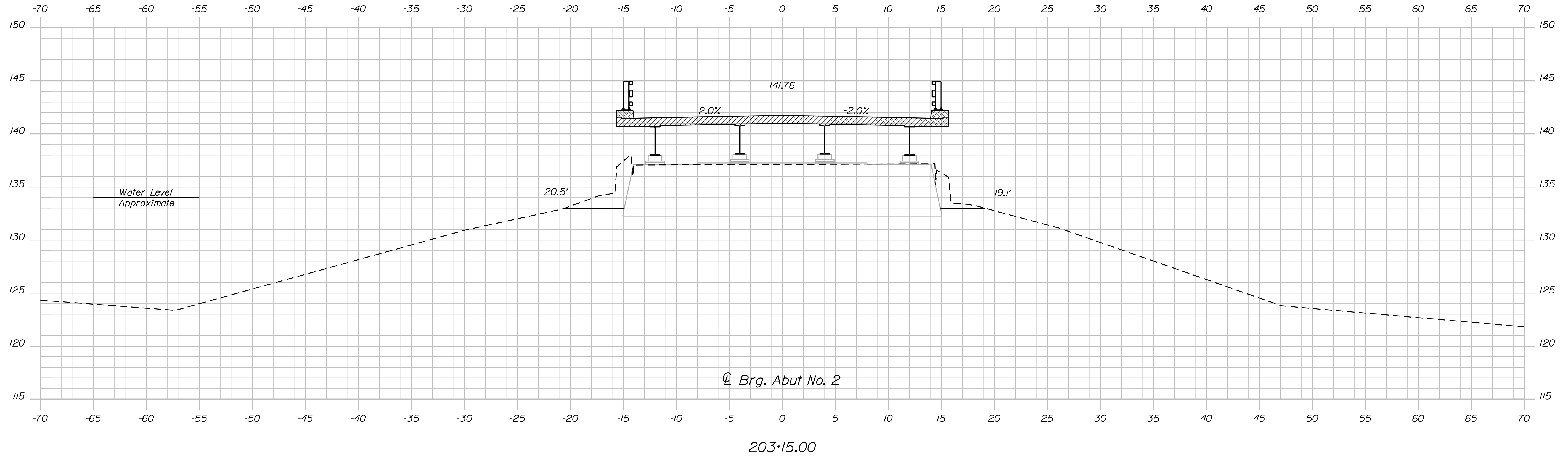
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THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
CROSS SECTIONS

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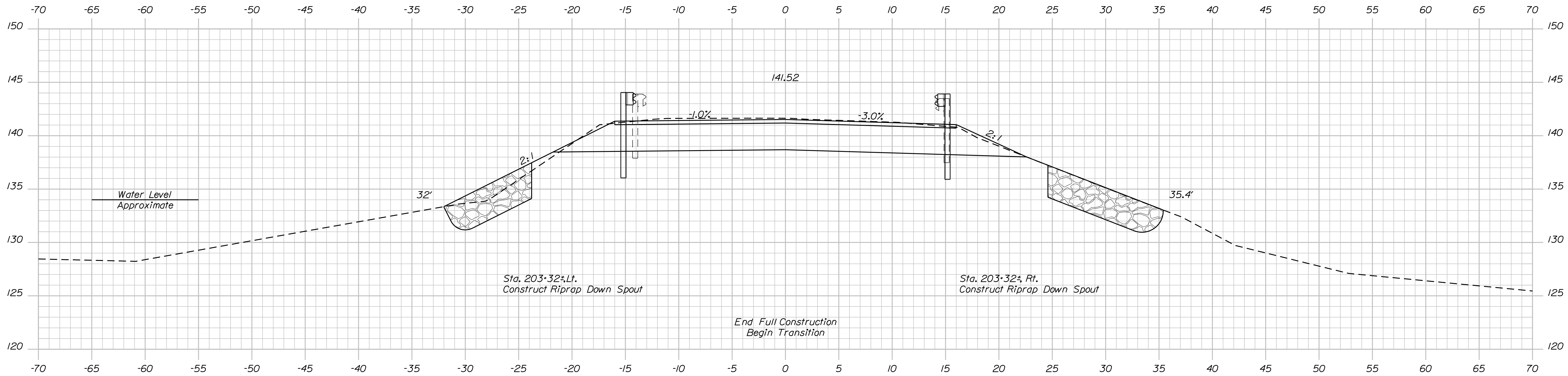
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FIELD CHANGES													
OF 30													

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Username: Jeremiah.Brunelle

Division: BRIDGE

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Sta. 203+32.5, Lt.
Construct Riprap Down Spout

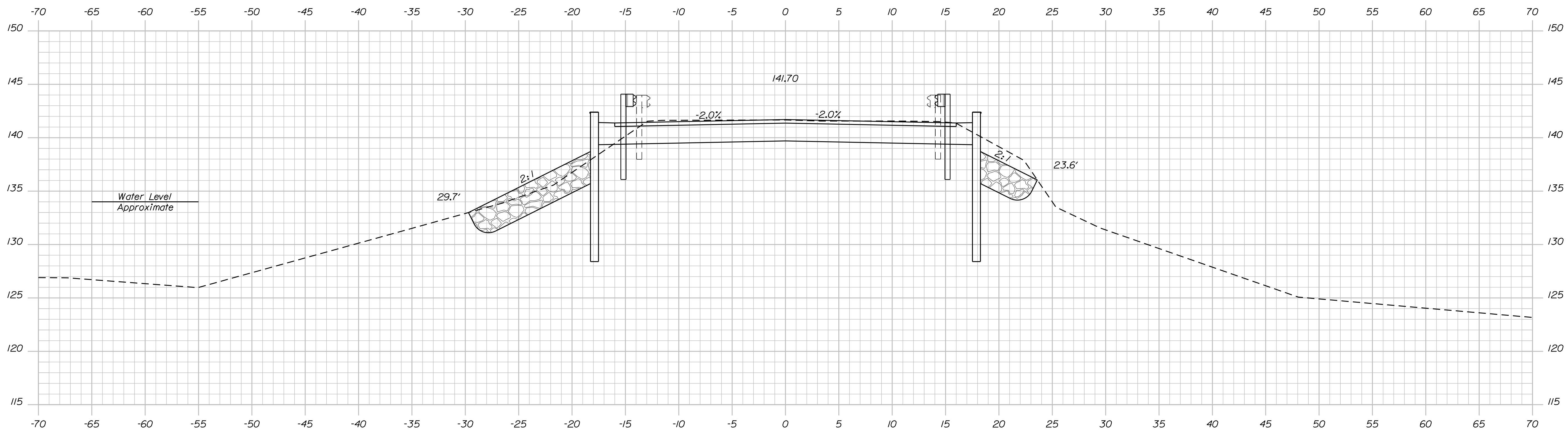
Sta. 203+32.5, Rt.
Construct Riprap Down Spout

End Full Construction
Begin Transition

Sta. 203+46.5, 14' Lt. to Sta. 204+54.80, 14' Lt.
Install 3" W-Beam Guardrail- Mid-Way-Splice

203+50.00

Sta. 203+46.5, 14' Rt. to Sta. 204+19.10, 14' Rt.
Install 3" W-Beam Guardrail- Mid-Way-Splice

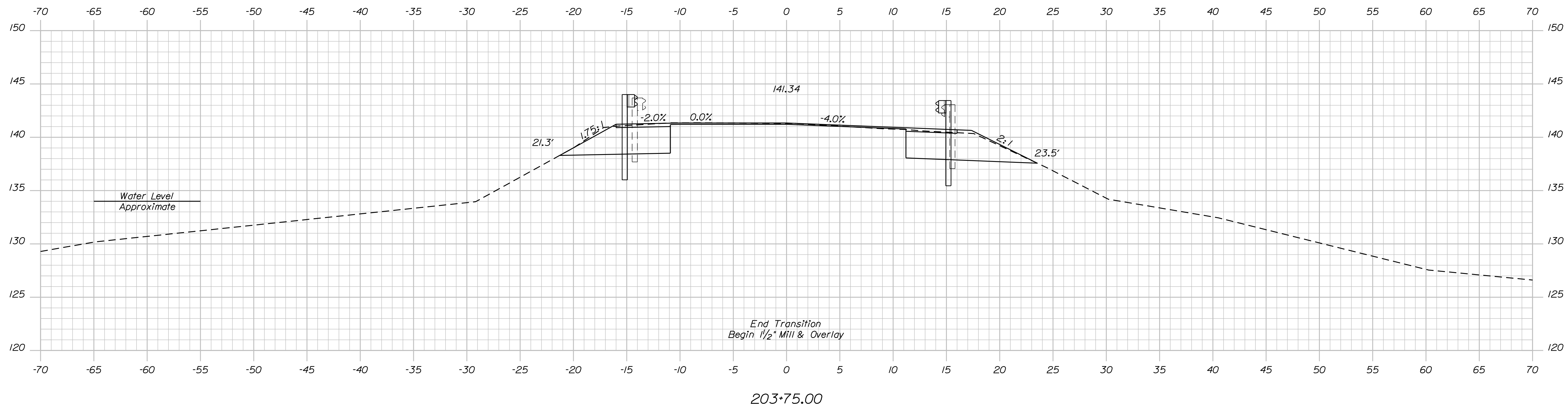
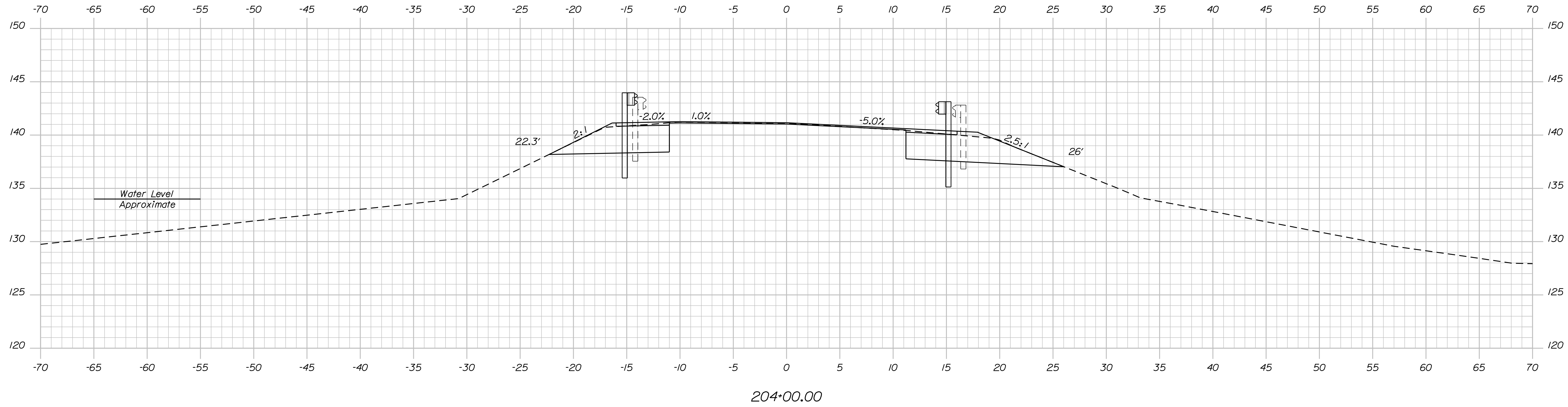


Bridge To Sta. 203+46.5, 14' Lt.
Install Approach Railing 3-Bar
and Bridge Transition Type I

203+25.00

Bridge To Sta. 203+46.5, 14' Rt.
Install Approach Railing 3-Bar
and Bridge Transition Type I

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365500
THOROUGHFARE BRIDGE PLEASANT POND RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES		WIN 023655.00
CROSS SECTIONS		BRIDGE NO. 3925 HIERARCHY PLANS
PROJ. MANAGER	T. BEAULIE	DATE
DESIGN/DETAILED	M. GRAY	10-2022
CHECKED/REVIEWED	J. BRUNELLE	11-2022
DESIGNS/DETAILED		SIGNATURE
REVISIONS 1		P.E. NUMBER
REVISIONS 2		DATE
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		
SHEET NUMBER		
13		
OF 30		

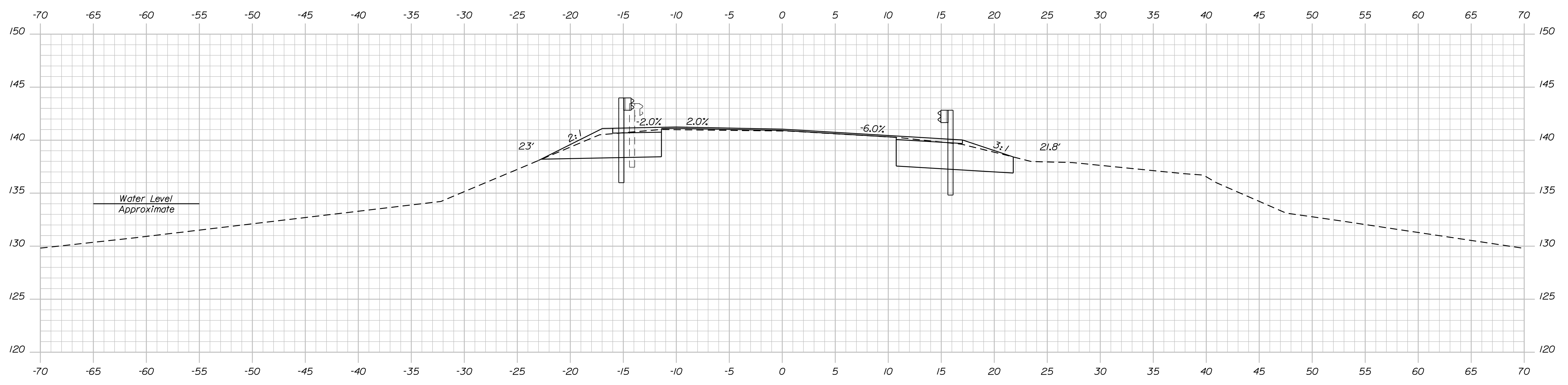
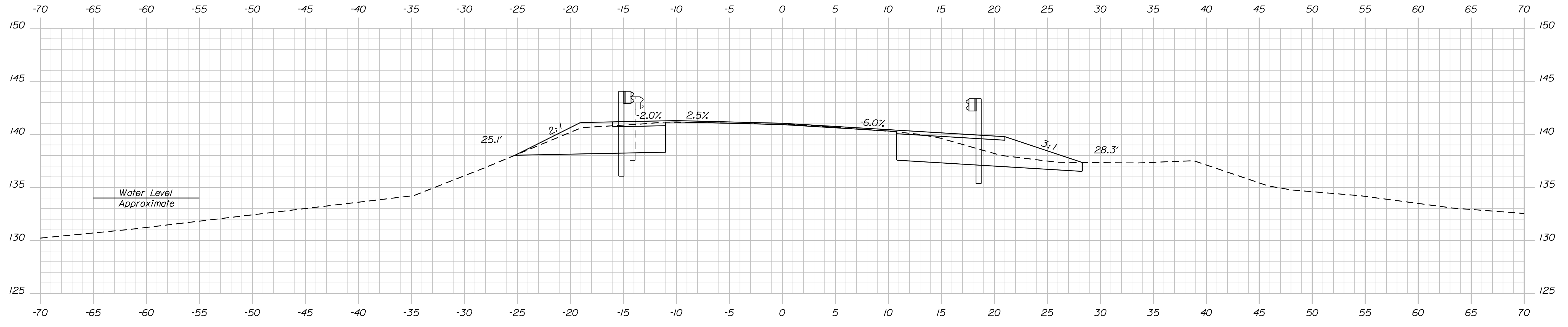


STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365500	
THOROUGHFARE BRIDGE PLEASANT POND RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES		WIN 023655.00	
CROSS SECTIONS		BRIDGE NO. 3925 HIGHWAY PLANS	
PROJ. MANAGER	T. BEAULIE	DATE	DATE
DESIGN-DETAILED	M. GRAY	10-2022	
CHECKED-REVIEWED	M. GRAY	10-2022	
DESIGN-DETAILED	M. GRAY		
DESIGN-DETAILED	M. GRAY		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
		SIGNATURE	P.E. NUMBER
		DATE	DATE
SHEET NUMBER		14	
OF 30		OF 30	

Username: Jeremiah.Brunelle Date:11/16/2022

Division: BRIDGE

Filename: ... \015_Xsect_204+25-204+50.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2365500
WIN 023655.00
BRIDGE NO. 3925 HIGHWAY PLANS

DATE: 10-2022
BY: J. BRUNELLE
SIGNATURE: _____
P.E. NUMBER: _____
DATE: _____

PROJ. MANAGER	T. BEAULIE
DESIGN-DETAILED	M. GRAY
CHECKED-REVIEWED	M. GRAY
DESIGN-DETAILED	J. BRUNELLE
DESIGN-DETAILED	J. BRUNELLE
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
CROSS SECTIONS

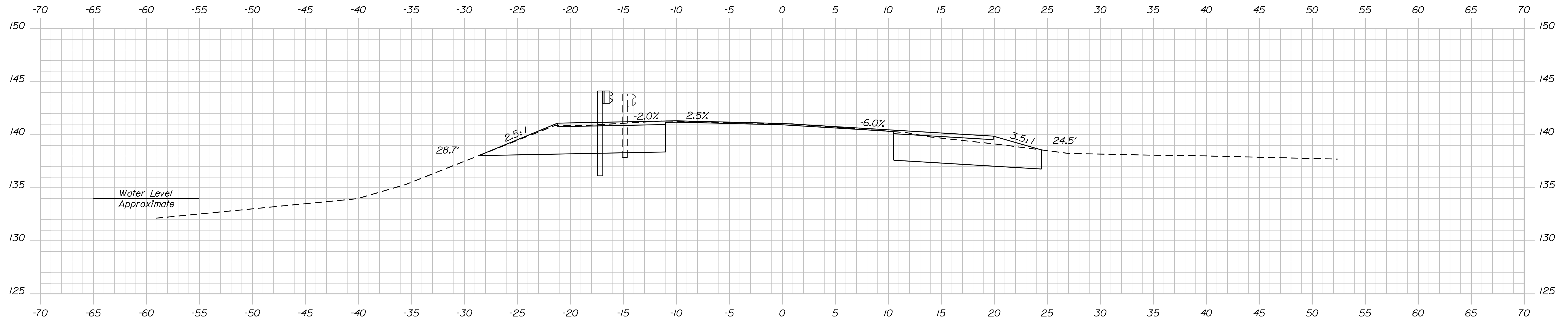
SHEET NUMBER
15
OF 30

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Username: Jeremiah Brunelle

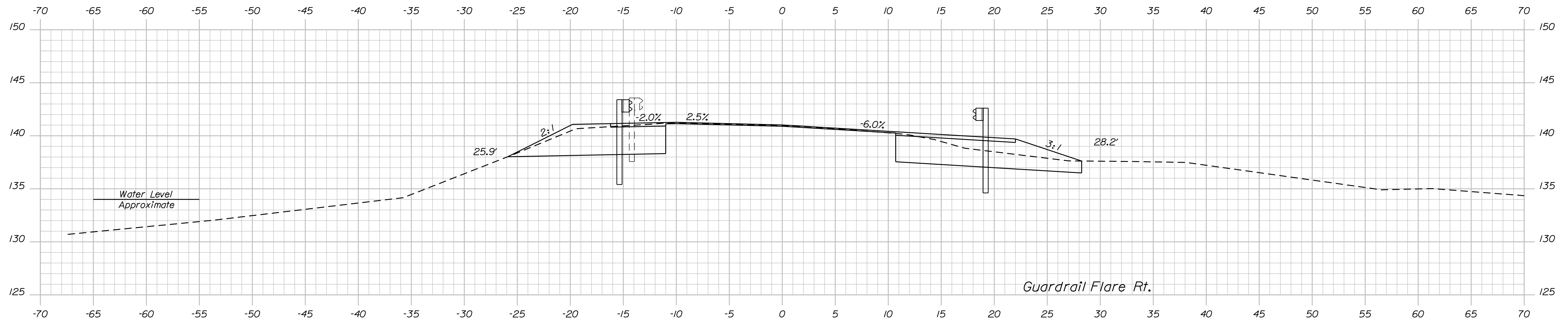
Date: 11/16/2022

Division: BRIDGE



Sta. 204+54.80, 14' Lt. To Sta. 204+92.00, 18' Lt.
 Install 3" W-Beam Guardrail- Mid-Way-Splice Flared Terminal

204+75.00



Guardrail Flare Rt.

204+56.81

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

2365500

BRIDGE NO. 3925
 WIN 023655.00
 HIGHWAY PLANS

SIGNATURE

DATE

BY
 T. BEAULIE
 M. GRAY
 J. BRUNELLE

PROJ. MANAGER
 DESIGN DETAILED
 CHECKED-REVIEWED
 DESIGN DETAILED
 REVISIONS 1
 REVISIONS 2
 REVISIONS 3
 REVISIONS 4
 FIELD CHANGES

THOROUGHFARE BRIDGE
 PLEASANT POND
 RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES

CROSS SECTIONS

SHEET NUMBER

16

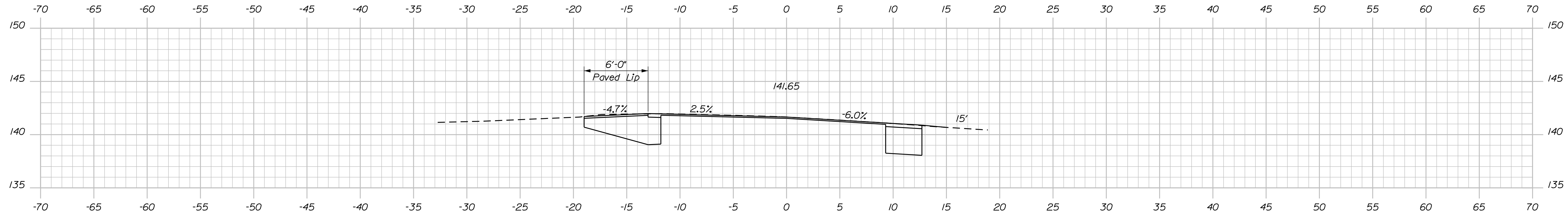
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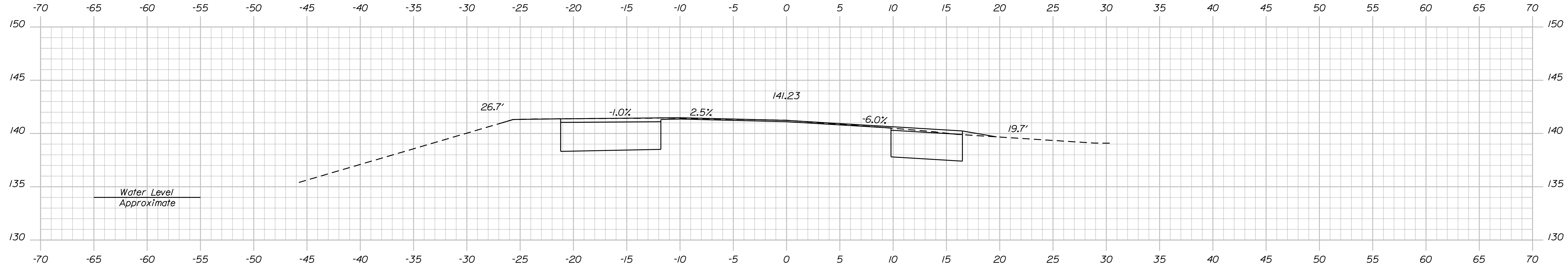
Username: Jeremiah.Brunelle

Date: 11/16/2022

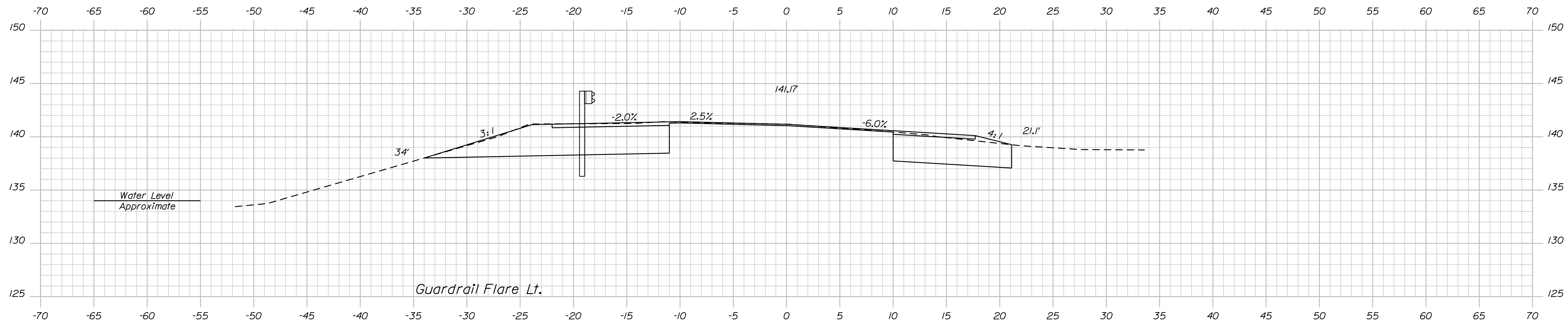
Division: BRIDGE



205+25.00



205+00.00



204+91.71

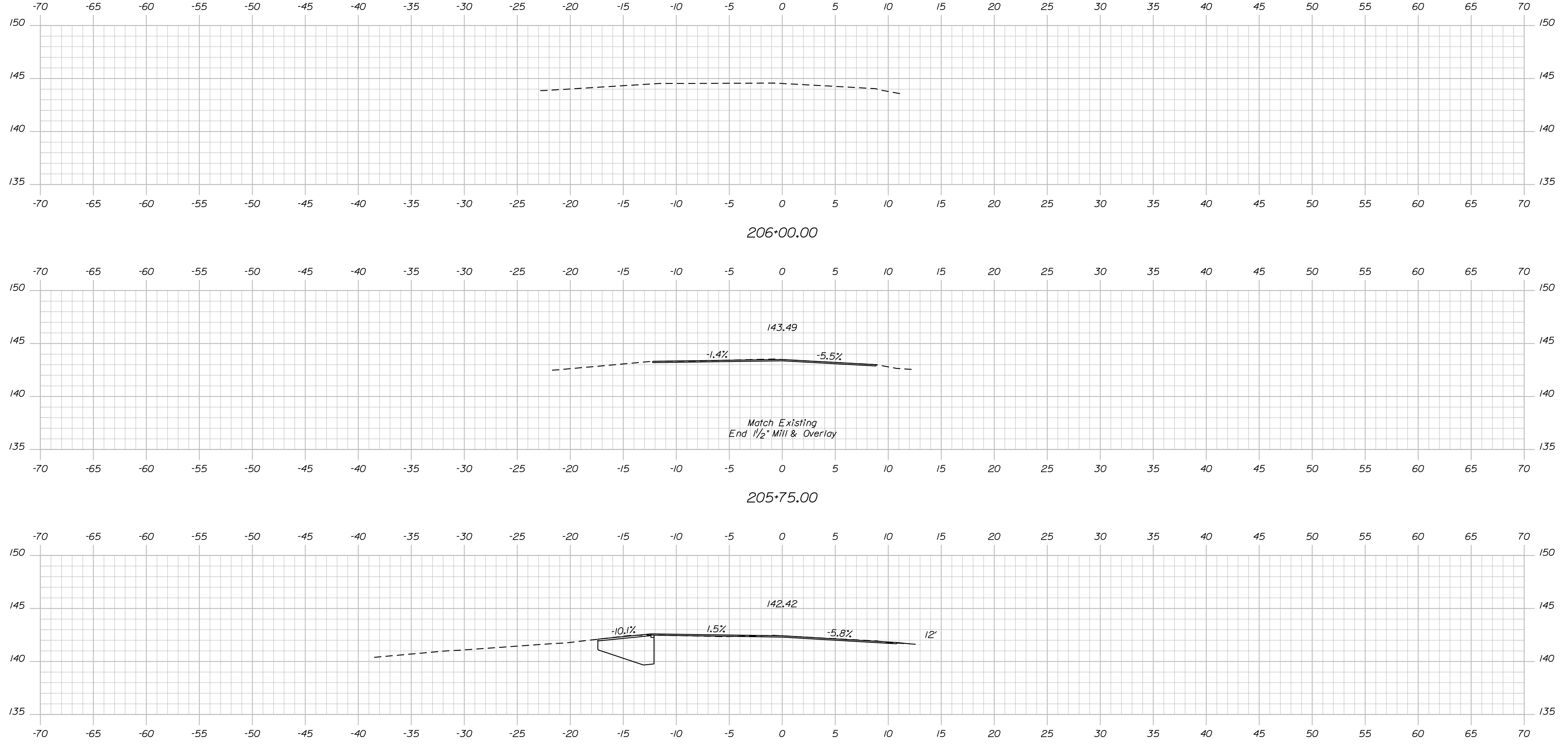
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2365500
WIN 023655.00
BRIDGE NO. 3925
HIGHWAY PLANS

DESIGN DETAILED	T. BEAULIE	DATE	10-2022
CHECKED/REVIEWED	M. GRAY	BY	10-2022
DESIGN DETAILED	M. GRAY	PROJ. MANAGER	
REVISIONS 1	M. GRAY	DESIGN DETAILED	
REVISIONS 2	M. GRAY	DESIGN DETAILED	
REVISIONS 3	M. GRAY	DESIGN DETAILED	
REVISIONS 4	M. GRAY	DESIGN DETAILED	
FIELD CHANGES	M. GRAY	DESIGN DETAILED	

SIGNATURE	P.E. NUMBER	DATE

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
CROSS SECTIONS

SHEET NUMBER
17
OF 30



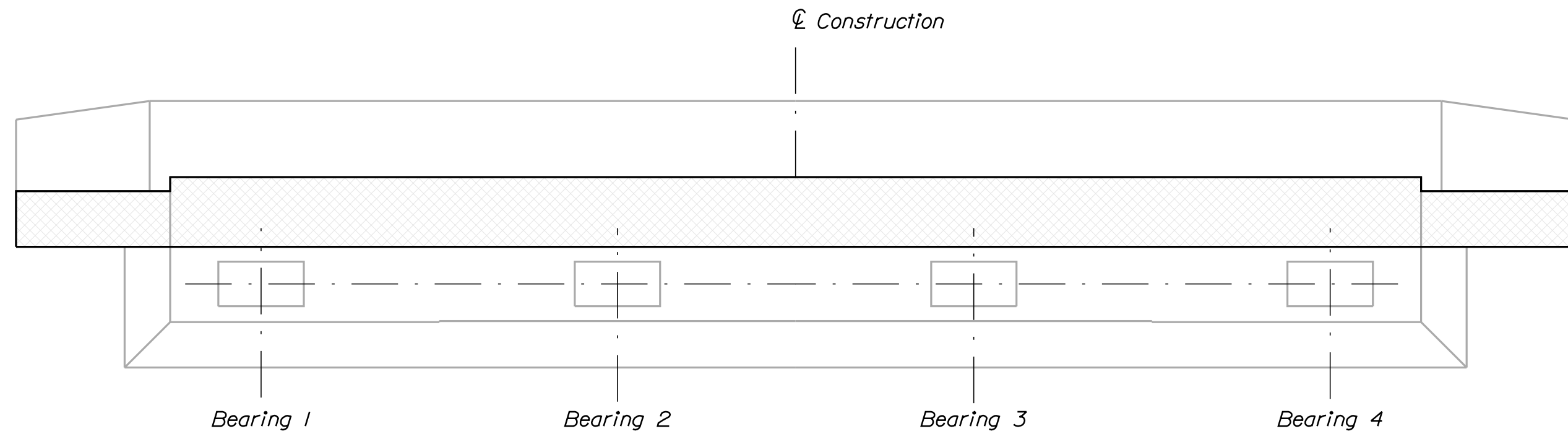
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2365500
WIN 023655.00
BRIDGE NO. 3925 HIERARCHY PLANS

PROJ. MANAGER T. BEAULIE
DESIGN DETAILED M. GRAY
CHECKED/REVIEWED MRP
DESIGN DETAILED J. BRUNELLE
DESIGN DETAILED J. BRUNELLE
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

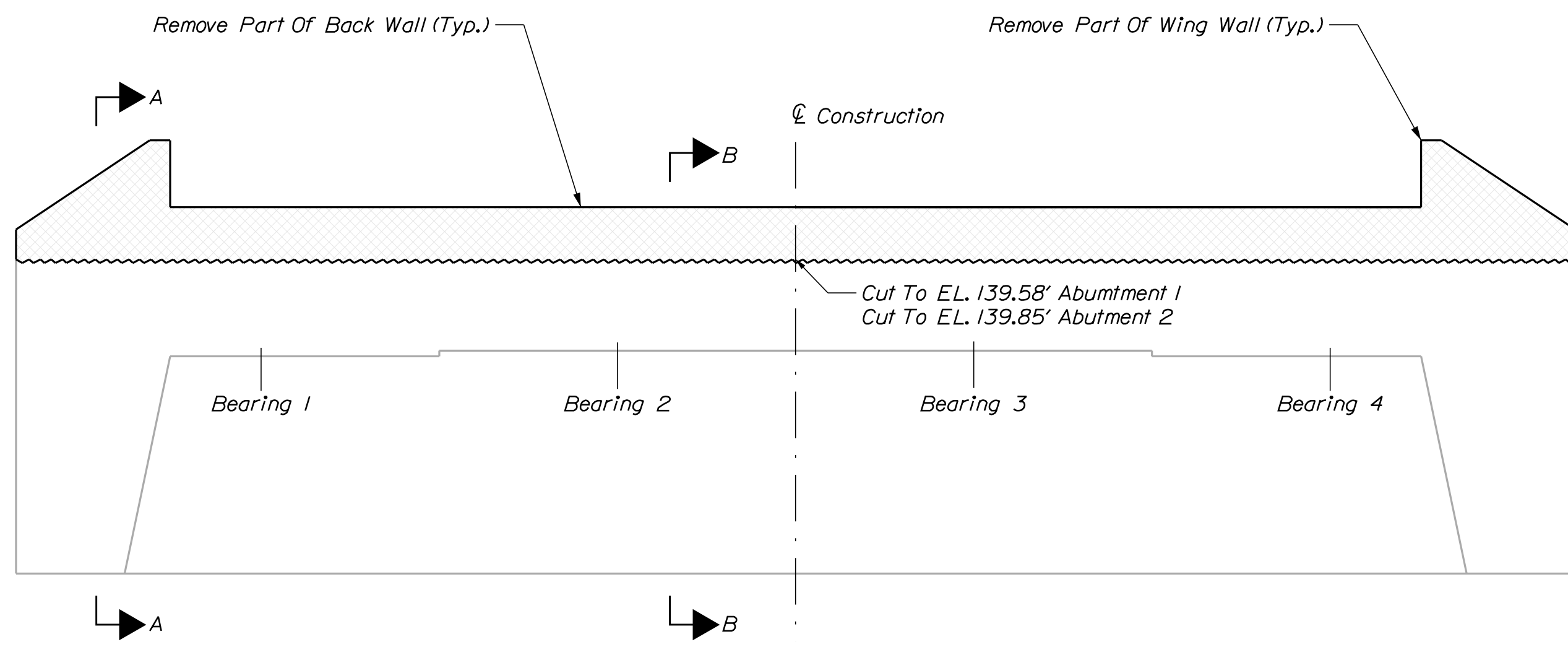
DATE 10-2022
BY J. BRUNELLE
SIGNATURE
P.E. NUMBER
DATE

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
CROSS SECTIONS

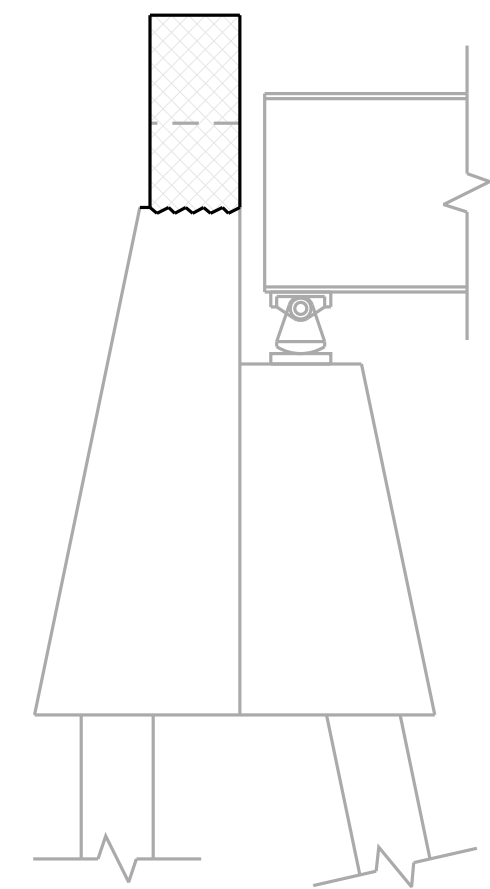
SHEET NUMBER
18
OF 30



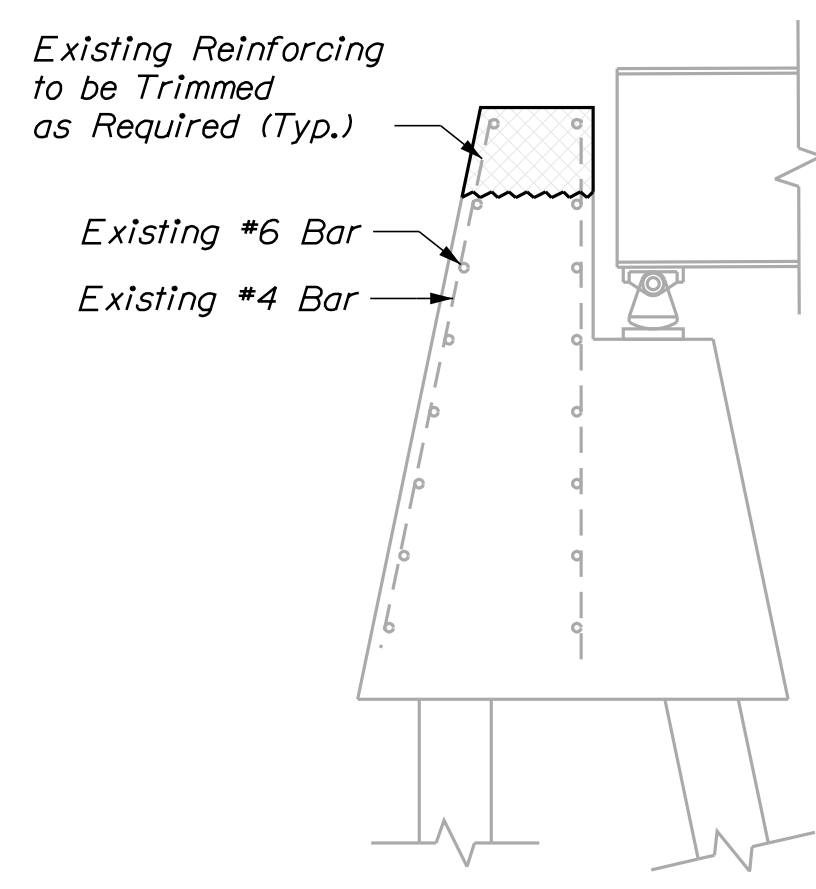
ABUTMENT NO. 1 - MODIFICATION (TOP VIEW)
Abutment No. 2 Similar



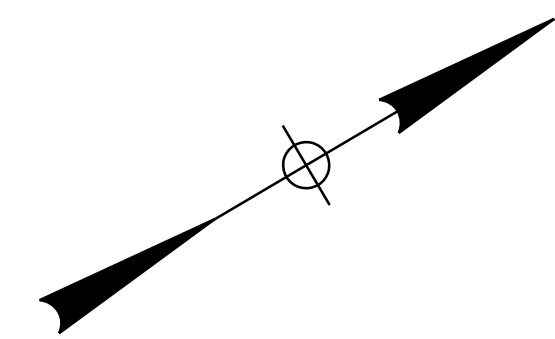
ABUTMENT NO. 1 - MODIFICATION (ELEVATION)
Abutment No. 2 Similar



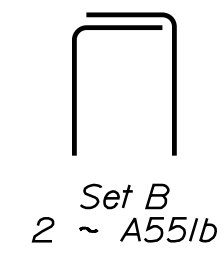
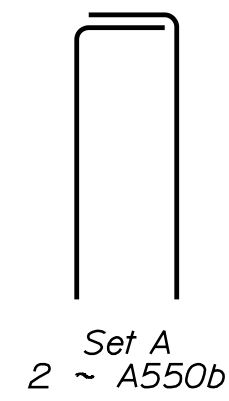
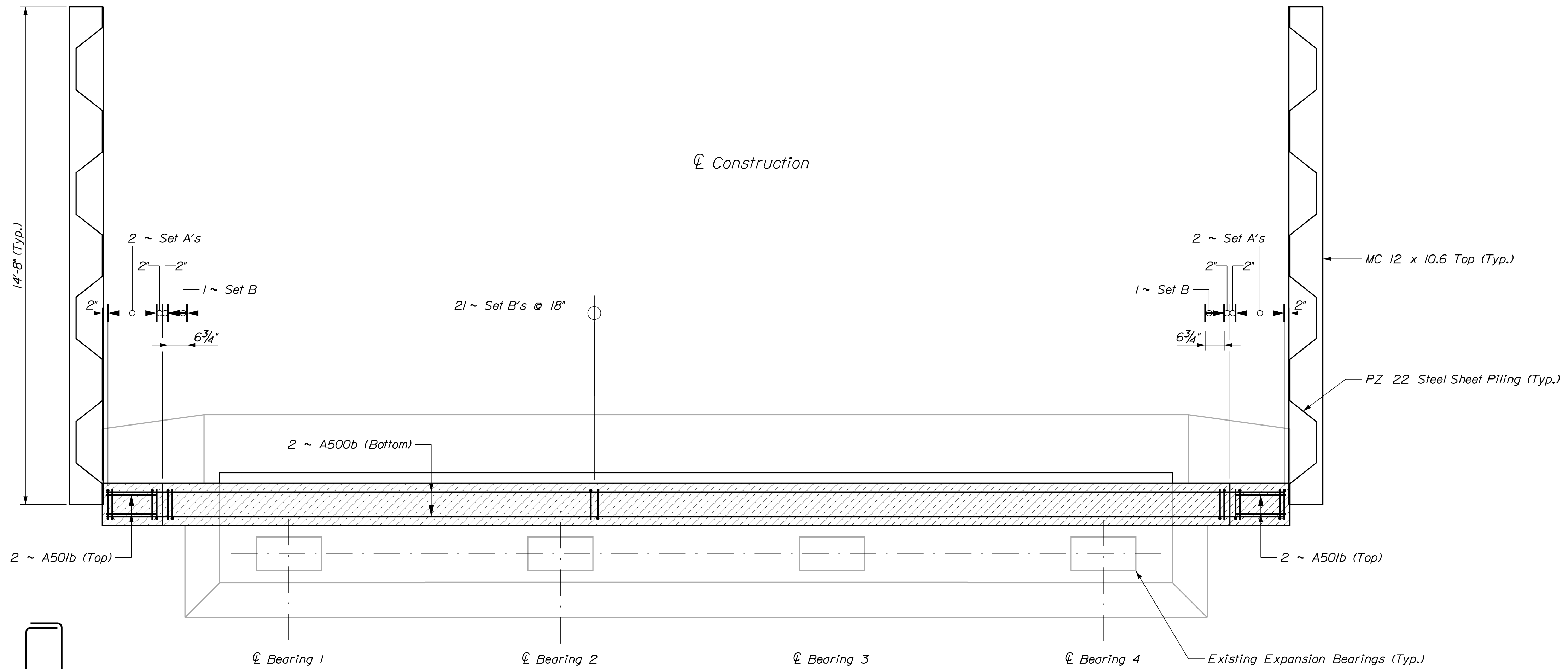
SECTION A - A



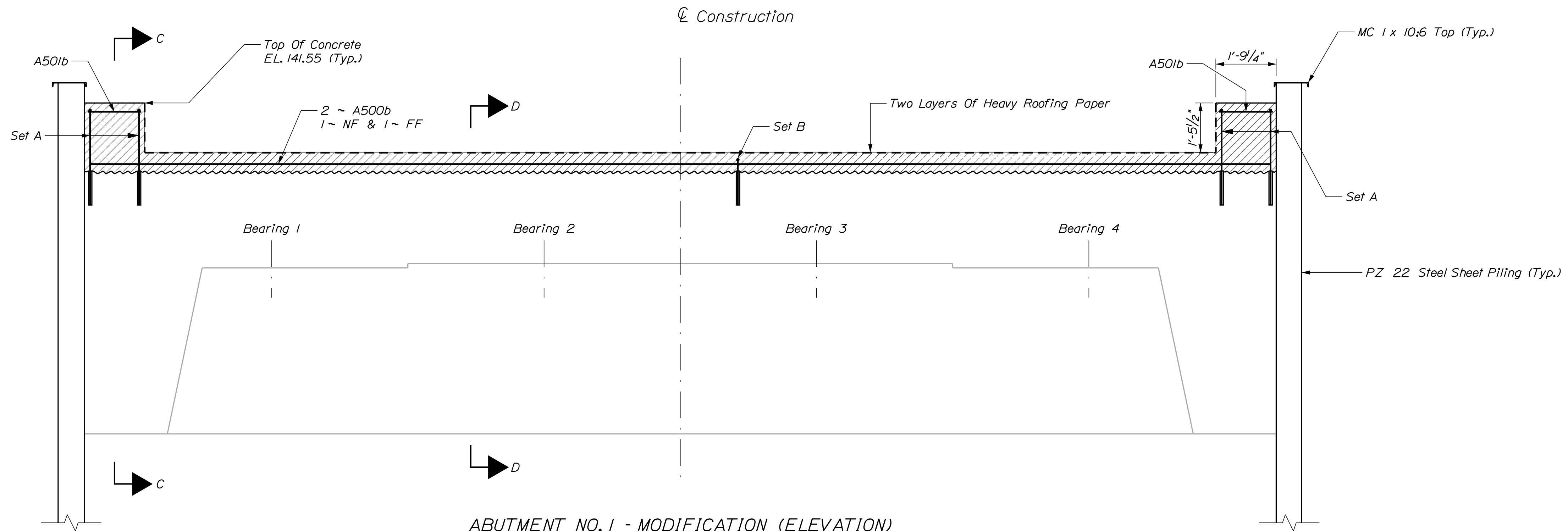
SECTION B - B



THOROUGHFARE BRIDGE PLEASANT POND RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES		STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2365500	BRIDGE NO. 3925 WIN 023655.00 BRIDGE PLANS																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PROJ. MANAGER</th> <th>T. BEAULIEU</th> <th>BY</th> <th>DATE</th> </tr> <tr> <td>DESIGN-DETAILED</td> <td>M. GRAY</td> <td>MRP</td> <td>10-2022</td> </tr> <tr> <td>CHECKED-REVIEWED</td> <td>R. NAOUS</td> <td>J. BRUNELLE</td> <td>11-2022</td> </tr> <tr> <td>DESIGN-DETAILED</td> <td></td> <td></td> <td>SIGNATURE</td> </tr> <tr> <td>REVISIONS 1</td> <td></td> <td></td> <td>P.E. NUMBER</td> </tr> <tr> <td>REVISIONS 2</td> <td></td> <td></td> <td>DATE</td> </tr> <tr> <td>REVISIONS 3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 4</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">FIELD CHANGES</td> </tr> </table>	PROJ. MANAGER	T. BEAULIEU	BY	DATE	DESIGN-DETAILED	M. GRAY	MRP	10-2022	CHECKED-REVIEWED	R. NAOUS	J. BRUNELLE	11-2022	DESIGN-DETAILED			SIGNATURE	REVISIONS 1			P.E. NUMBER	REVISIONS 2			DATE	REVISIONS 3				REVISIONS 4				FIELD CHANGES				ABUTMENT MODIFICATION 1 OF 3		
PROJ. MANAGER	T. BEAULIEU	BY	DATE																																				
DESIGN-DETAILED	M. GRAY	MRP	10-2022																																				
CHECKED-REVIEWED	R. NAOUS	J. BRUNELLE	11-2022																																				
DESIGN-DETAILED			SIGNATURE																																				
REVISIONS 1			P.E. NUMBER																																				
REVISIONS 2			DATE																																				
REVISIONS 3																																							
REVISIONS 4																																							
FIELD CHANGES																																							
SHEET NUMBER																																							
19																																							
OF 30																																							



ABUTMENT NO. 1 - MODIFICATION (TOP VIEW)



ABUTMENT NO. 1 - MODIFICATION (ELEVATION)

DESIGN/REVIEWED	M. GRAY	DATE	10-2022
CHECKED/REVIEWED	R. NAUJIS	BY	J. BRUNELLE
DESIGN/REVIEWED		DATE	11-2022
DESIGN/REVIEWED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

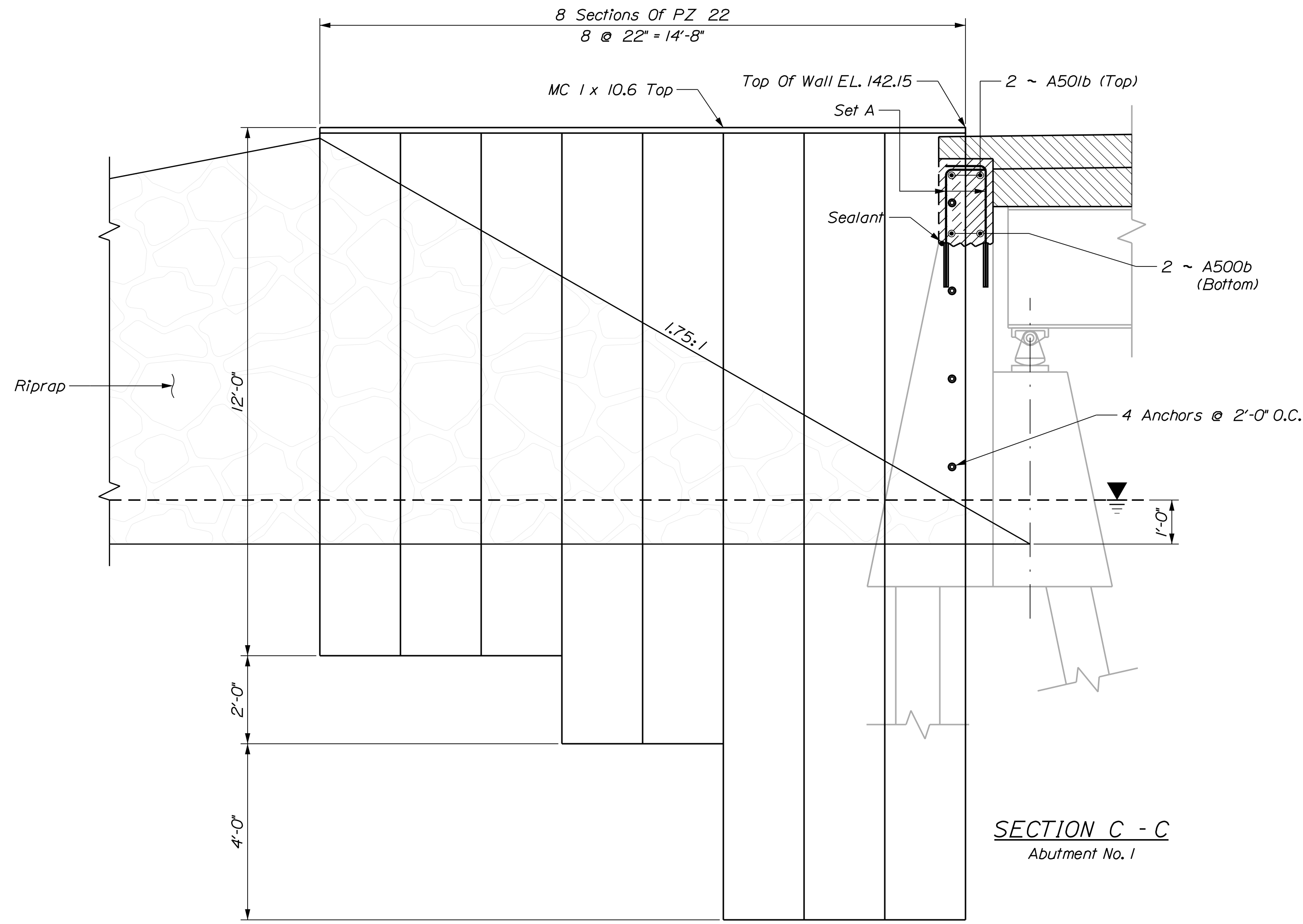
PROJ. MANAGER	T. BEAULIEU
DESIGN/REVIEWED	M. GRAY
CHECKED/REVIEWED	R. NAUJIS
DESIGN/REVIEWED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
ABUTMENT No. 1 (1 of 2)

SHEET NUMBER

20

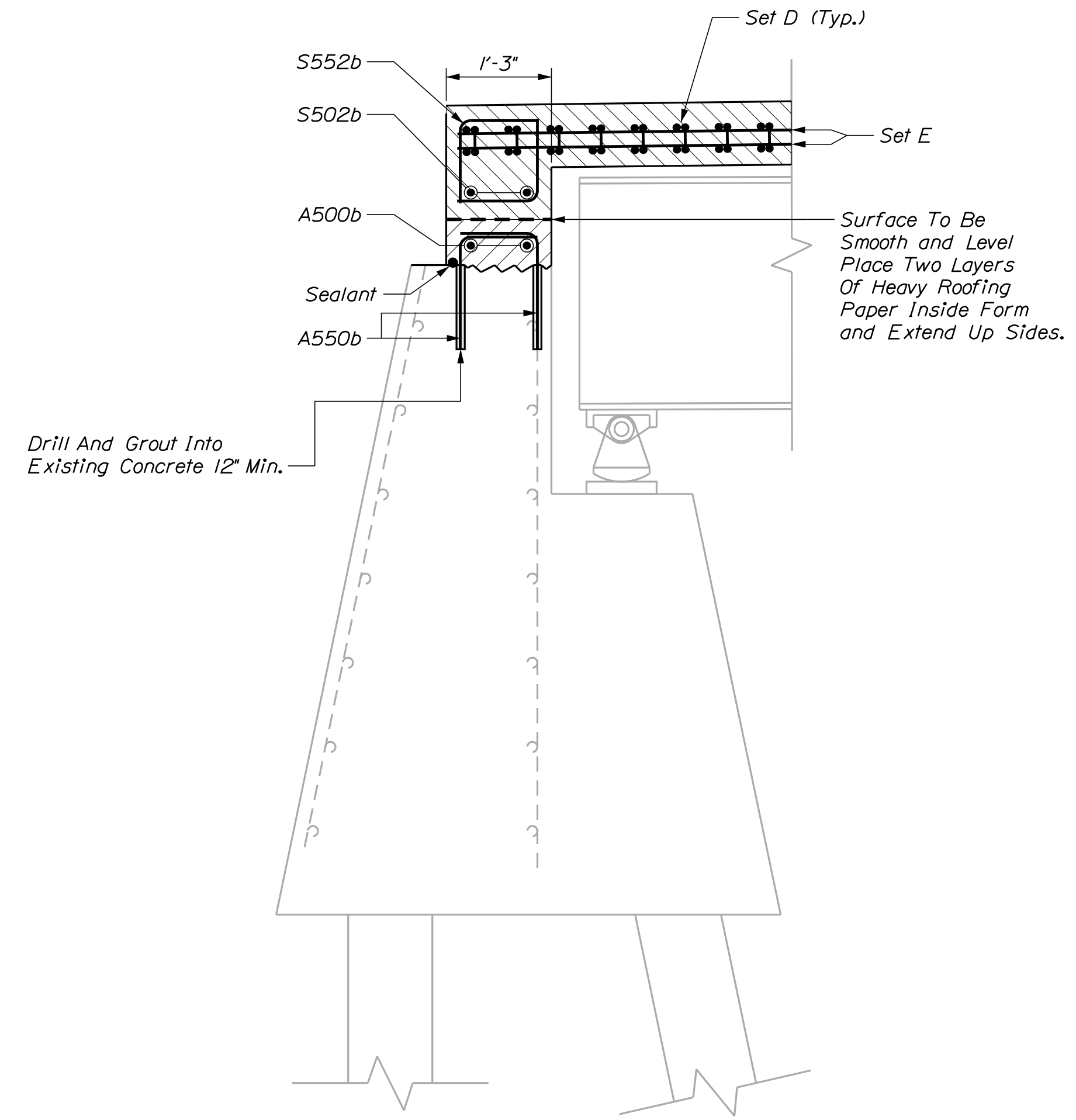
OF 30



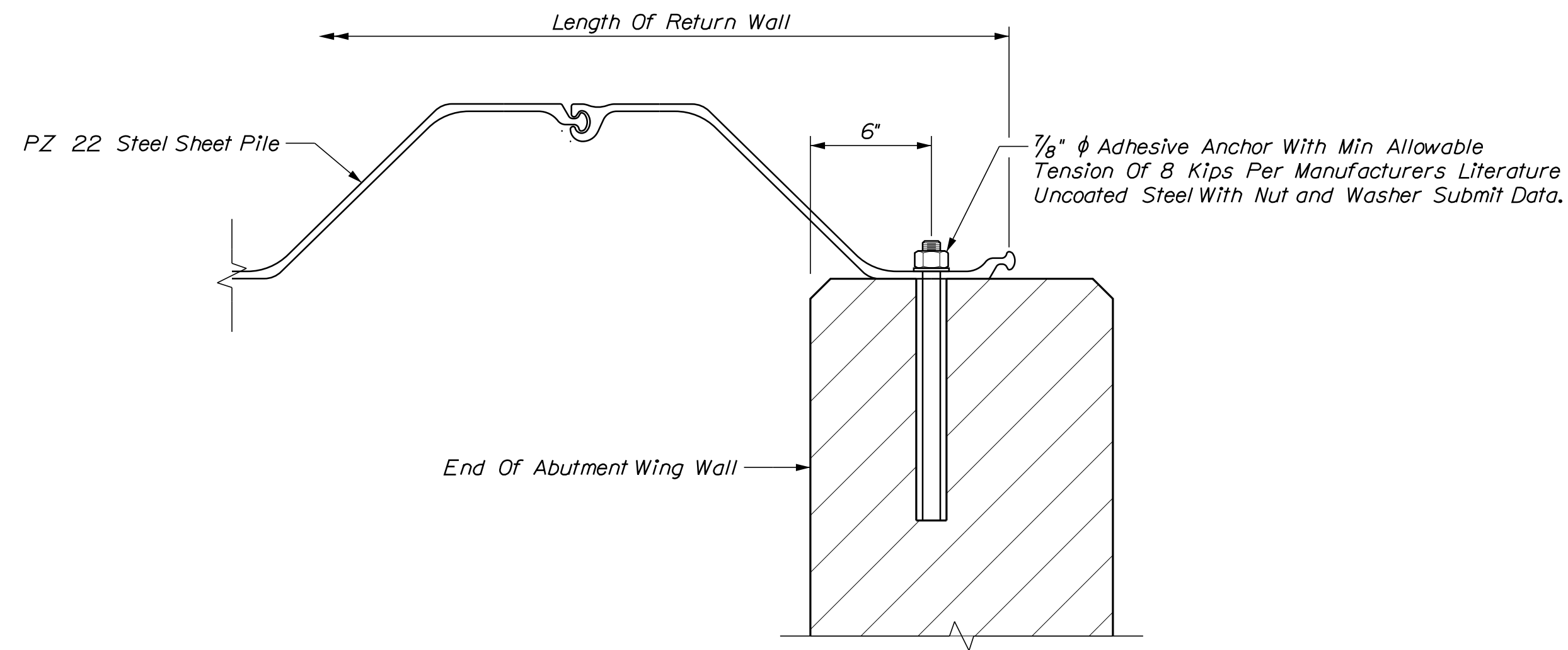
SECTION C - C
Abutment No. 1

NOTE:

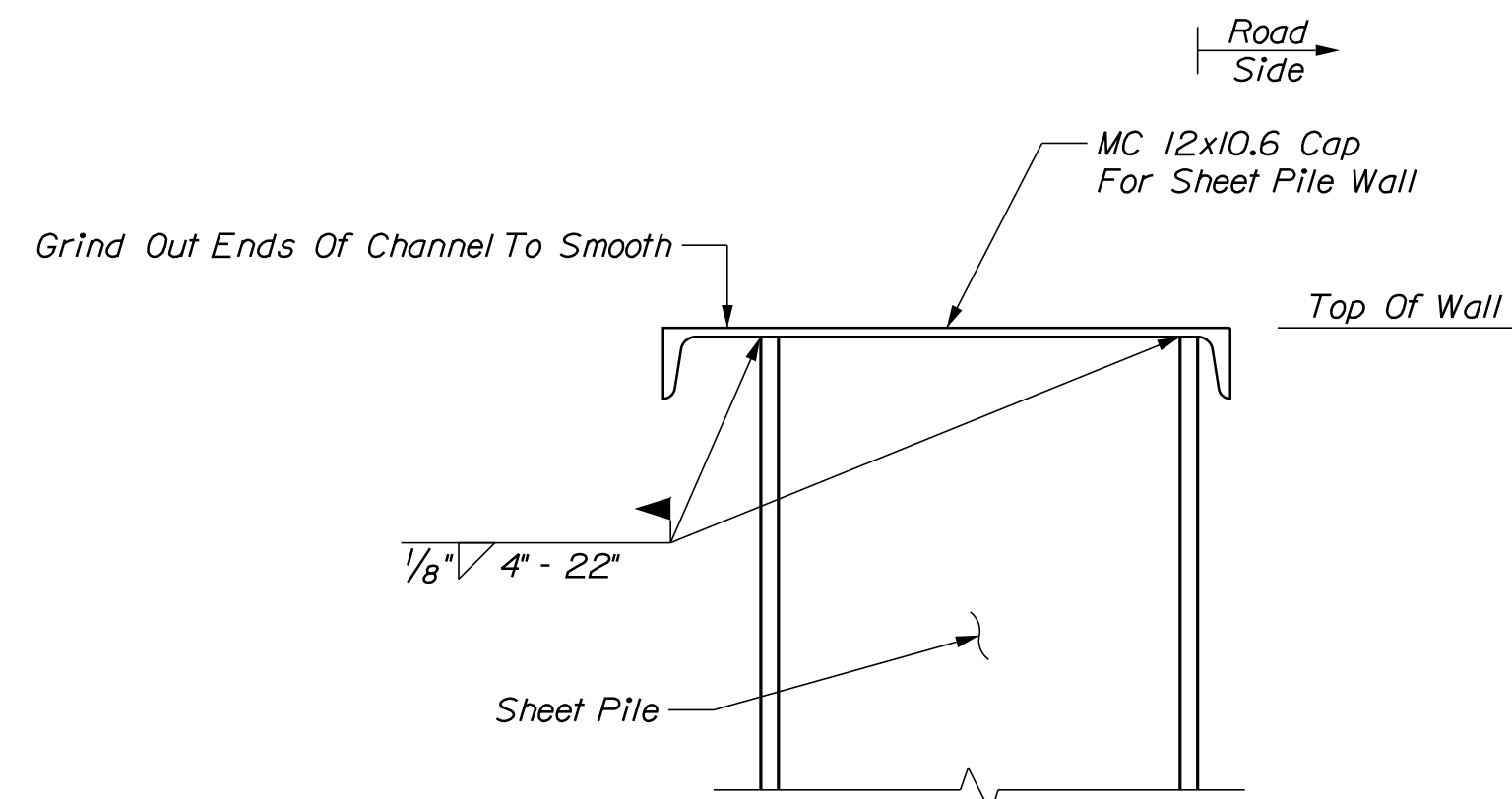
1. Sealant to be applied immediately before concrete placement 2" from the soil side face of finished concrete, in a continuous bead. Sealant to be Sika Leakmaster LV-Z or equivalent. Install per manufacturer instruction. Bead to be (3/16" x 3/4"). This work is incidental to other contract items.



SECTION D - D
Abutment No. 1



SHEET PILE WALL ATTACHMENT DETAIL



SHEET PILE WALL CAP DETAIL

DESIGNED	DATE
CHECKED	10-2022
DESIGNED	11-2022
REVISIONS 1	SIGNATURE
REVISIONS 2	P.E. NUMBER
REVISIONS 3	DATE
REVISIONS 4	
FIELD CHANGES	

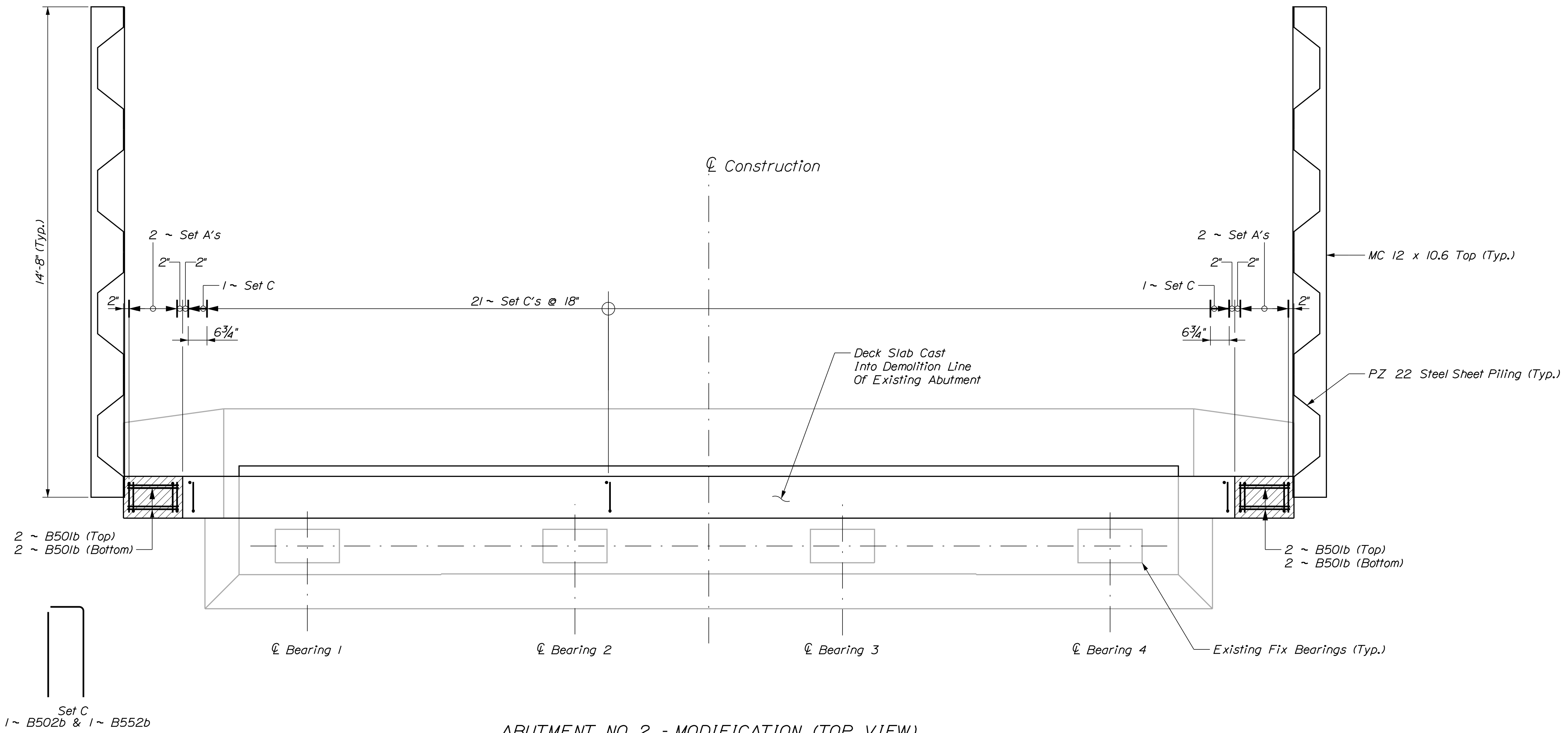
PROJ. MANAGER	T. BEAULIEU
DESIGN-DETAILED	M. GRAY
CHECKED-REVIEWED	R. NAQUIS
DESIGN-DETAILED	J. BRUNELLE
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
ABUTMENT No. 1 (2 of 2)

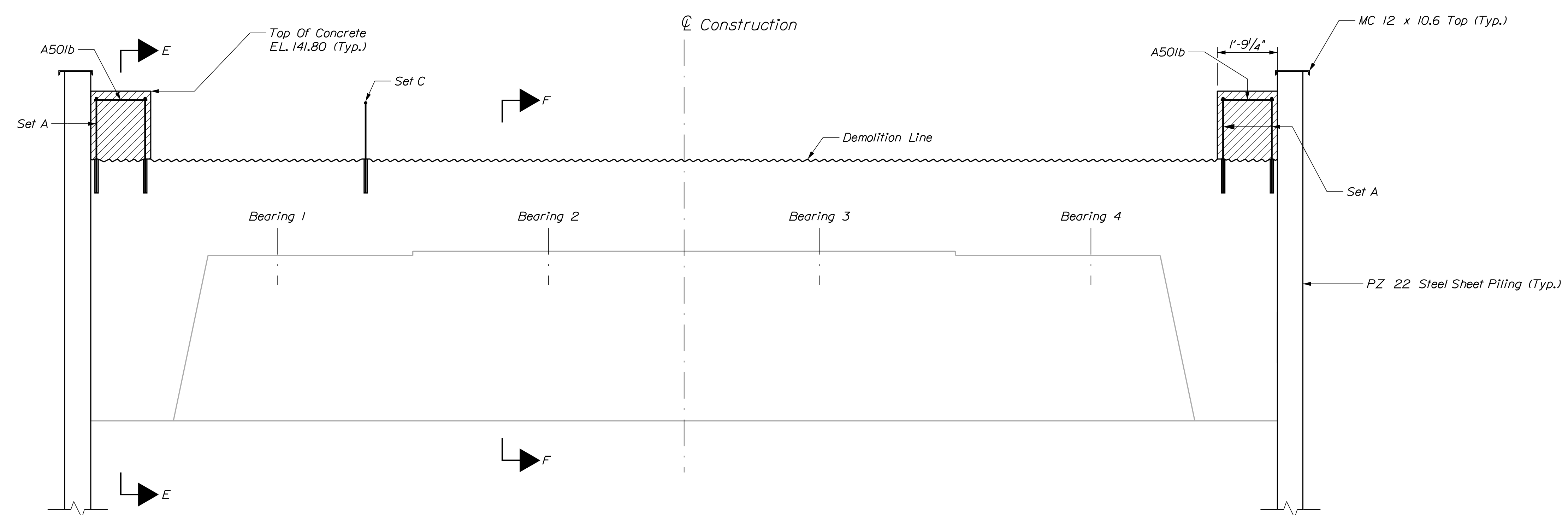
SHEET NUMBER

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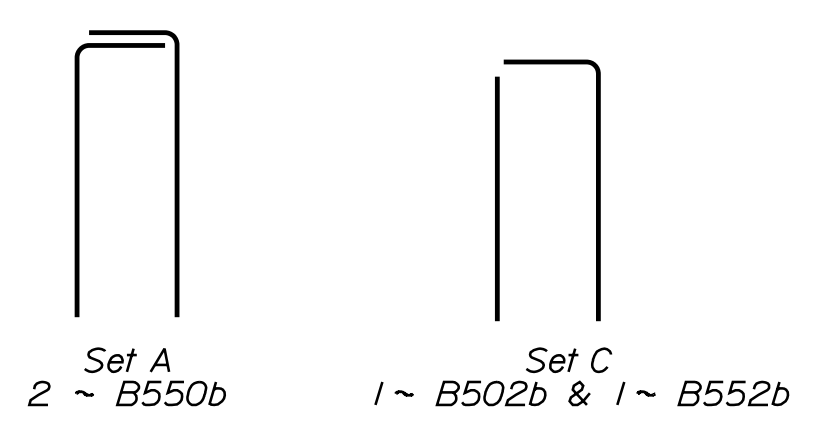
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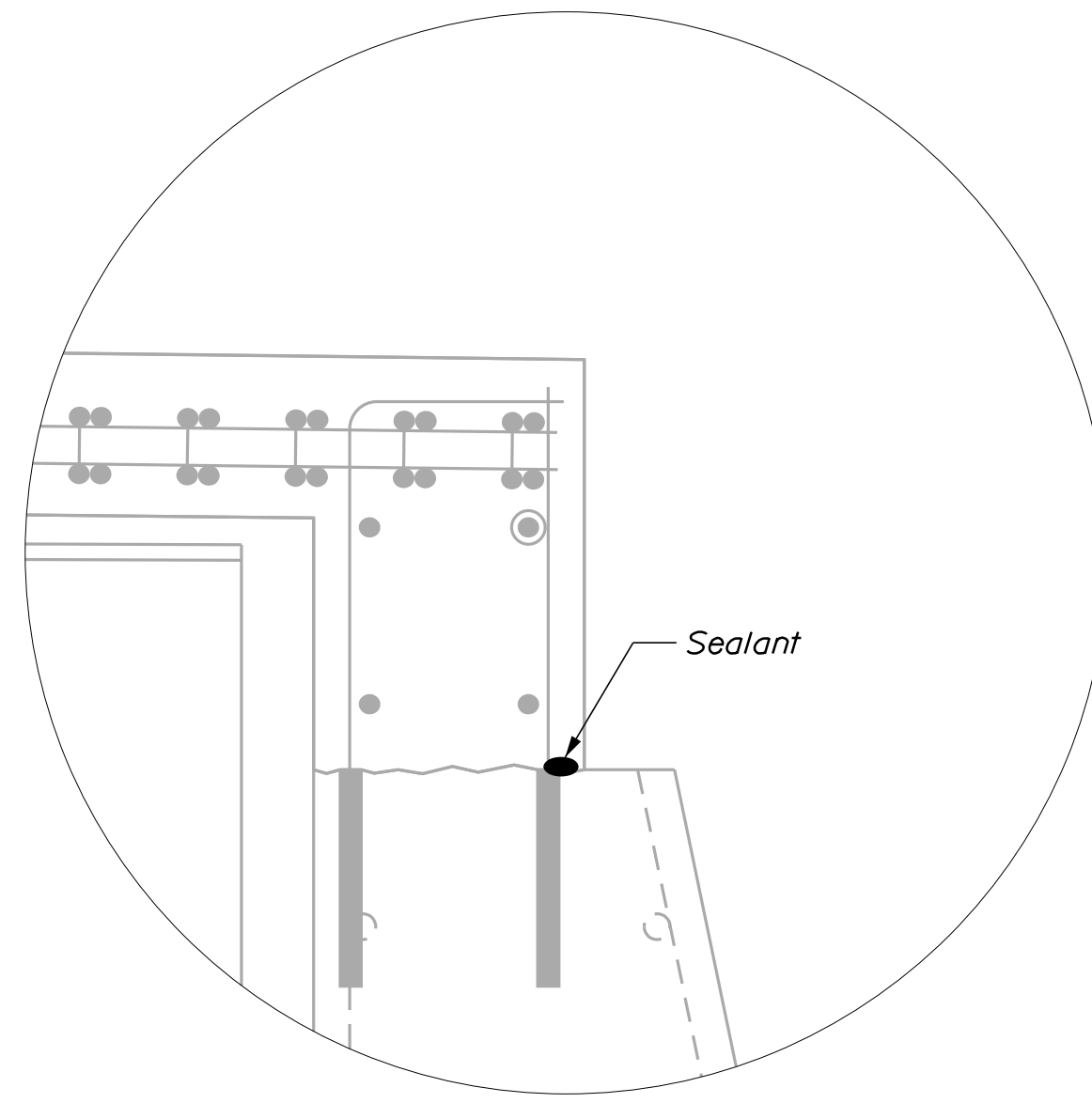
ABUTMENT NO. 2 - MODIFICATION (TOP VIEW)



ABUTMENT NO. 2 - MODIFICATION (ELEVATION)



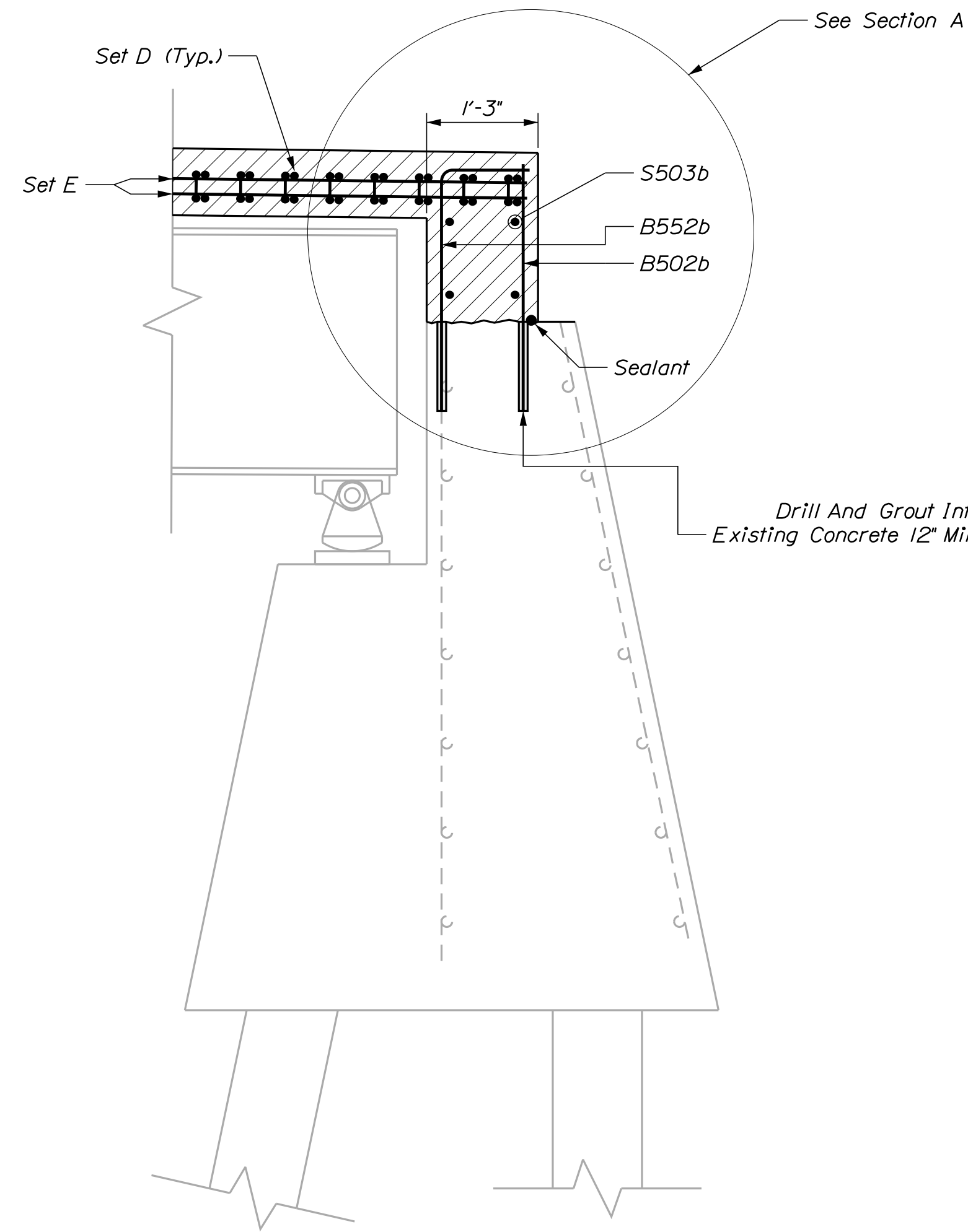
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2365500		BRIDGE NO. 3925 WIN 023655.00 BRIDGE PLANS
THOROUGHFARE BRIDGE PLEASANT POND RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES	ABUTMENT No. 2 (1 OF 2)	
PROJ. MANAGER DESIGN/DETAILED CHECKED/REVIEWED DESIGN/DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	T. BEAULIEU M. GRAY R. NAQUIS MRP MAC	DATE 10-2022 10-2022 SIGNATURE P.E. NUMBER DATE
SHEET NUMBER		22
OF 30		



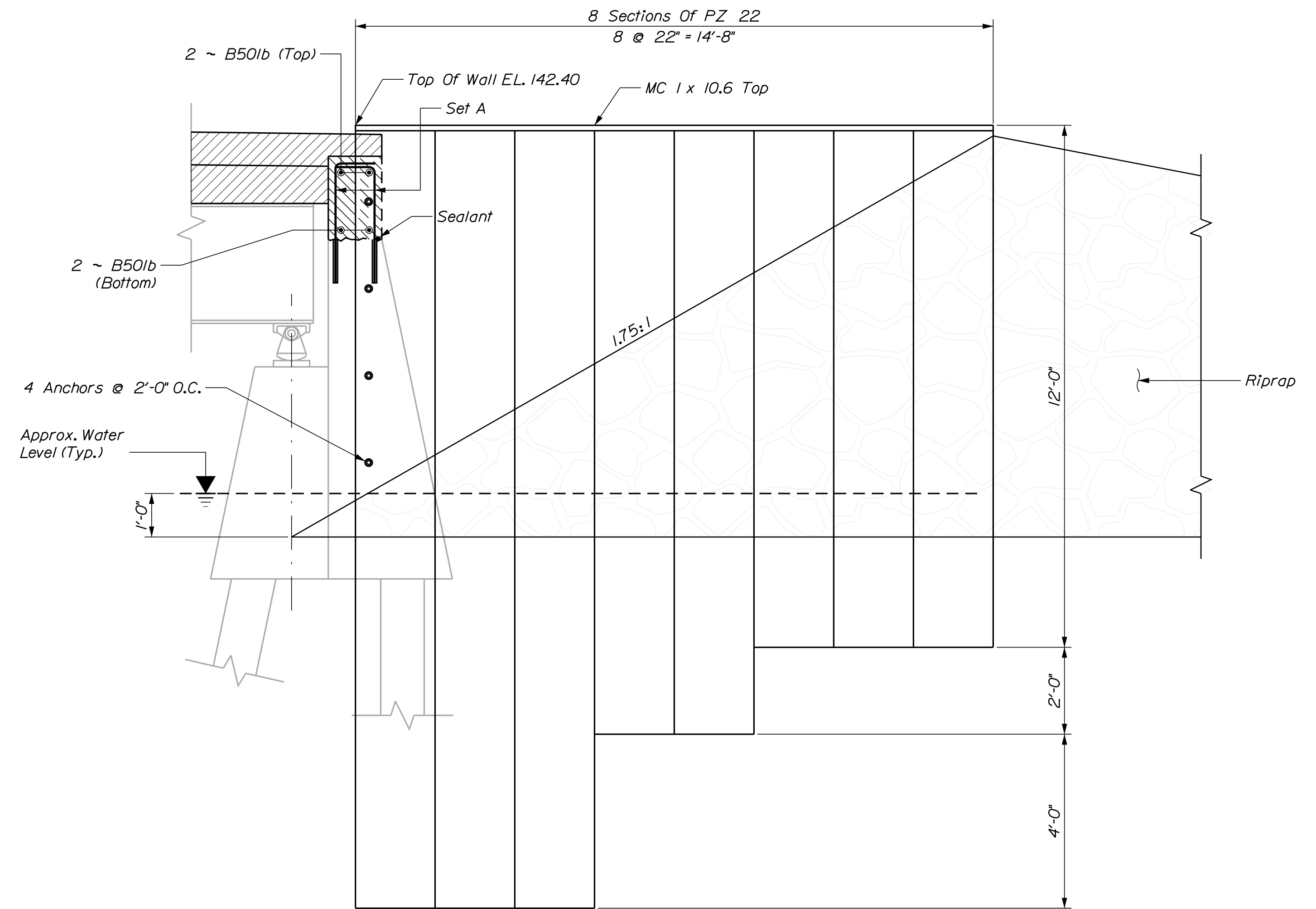
Section A
Sealant Placement Detail (Typ.)

NOTE:

1. Sealant to be applied immediately before concrete placement 2" from the soil side face of finished concrete, in a continuous bead. Sealant to be Sika Leakmaster LV-Z or equivalent. Install per manufacturer instruction. Bead to be (3/16" x 3/4"). This work is incidental to other contract items.



SECTION F - F
Abutment No. 2



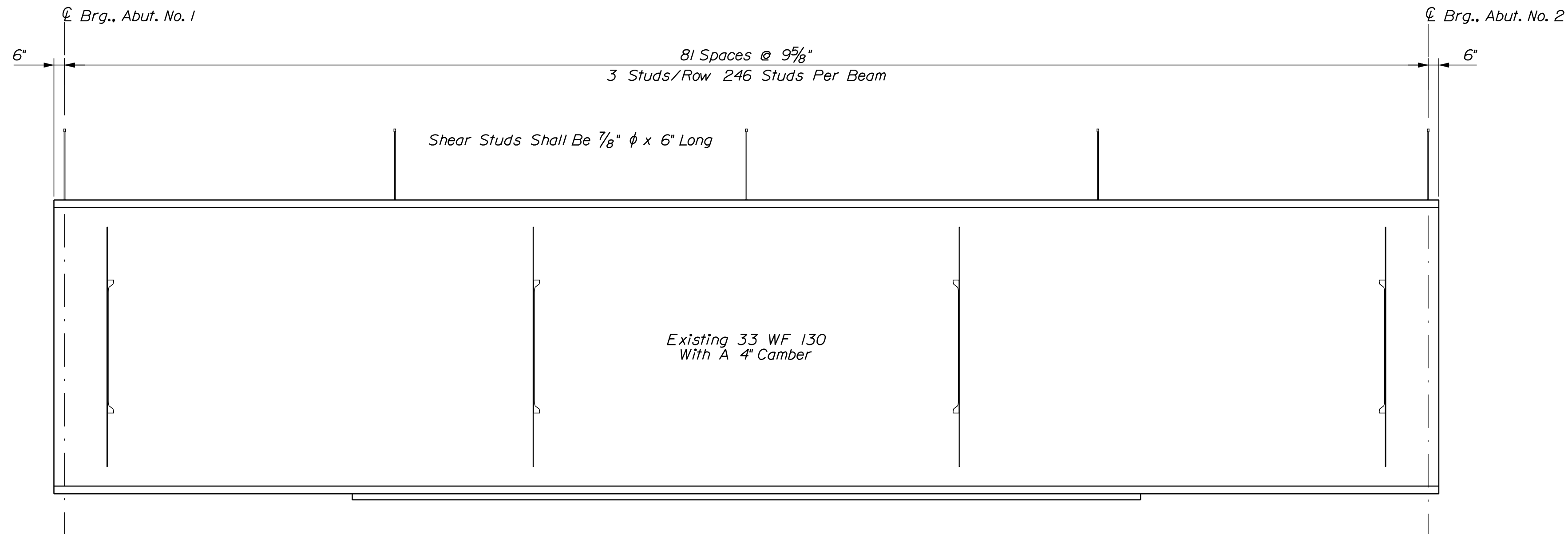
SECTION E - E
Abutment No. 2

PROJ. MANAGER	DATE	BY	DATE
DESIGN DETAILED M. GRAY	11-2022	MRP	11-2022
CHECKED/REVIEWED R. NAUJIS	11-2022	J. BRUNELLE	11-2022
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTY
ABUTMENT No. 2 (2 OF 2)

SHEET NUMBER

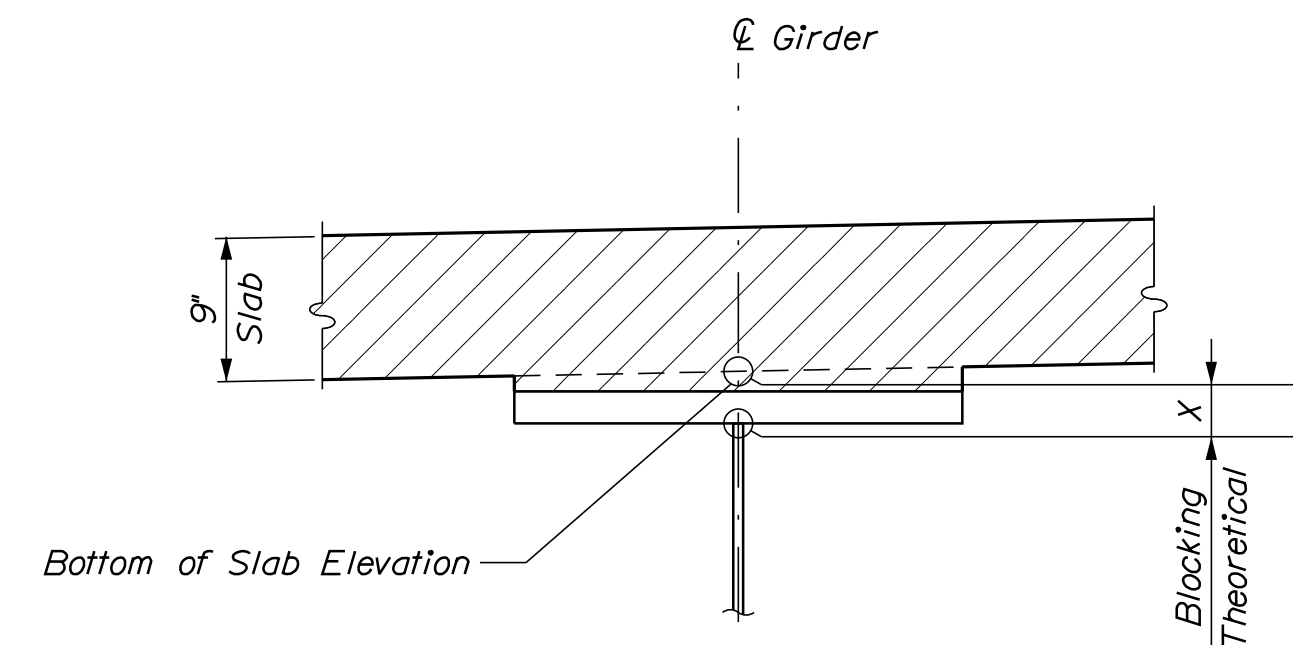
23



SHEAR STUD LAYOUT
984 Shear Studs Total

BOTTOM OF SLAB ELEVATIONS IN FEET											
Girder	Abut. No. 1 202+50.00	Station 202+56.50	Station 202+63.00	Station 202+69.50	Station 202+76.00	Station 202+82.50	Station 202+89.00	Station 202+95.50	Station 203+02.00	Station 203+08.50	Abut. No. 2 202+15.00
CL FG New	141.50	141.58	141.64	141.70	141.74	141.77	141.79	141.80	141.79	141.78	141.76
1	140.70	140.82	140.93	141.01	141.07	141.11	141.12	141.11	141.08	141.02	140.95
2	140.86	140.98	141.08	141.16	141.22	141.26	141.27	141.26	141.23	141.18	141.11
3	140.86	140.98	141.08	141.16	141.22	141.26	141.27	141.26	141.23	141.18	141.11
4	140.70	140.82	140.93	141.01	141.07	141.11	141.12	141.11	141.08	141.02	141.95

Adjustment to Theoretical, included in all values above to attempt to avoid negative blocking values



BLOCKING DETAIL
See Chart

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365500

WIN

BRIDGE NO. 3925

023655.00

BRIDGE PLANS

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD
KENNEBEC & SACADAHOC COUNTY

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD
KENNEBEC & SACADAHOC COUNTY

SHEAR STUD LAYOUT &
BOTTOM OF SLAB ELEVATIONS

SHEET NUMBER

24

OF 30

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

T. BEAULIEU
M. GRAY
R. NAOUS
J. BRUNELLE

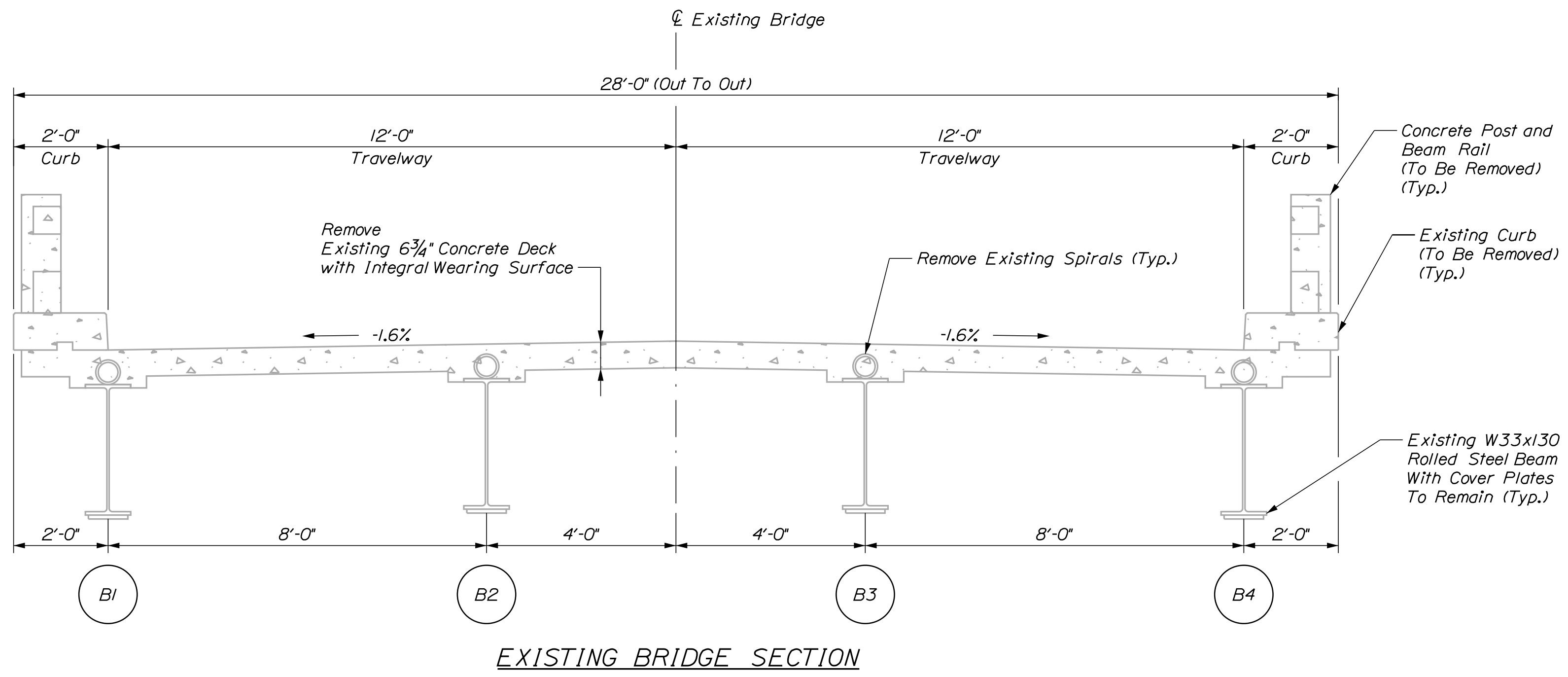
DATE
11-2022
11-2022

BY
MRP
J. BRUNELLE

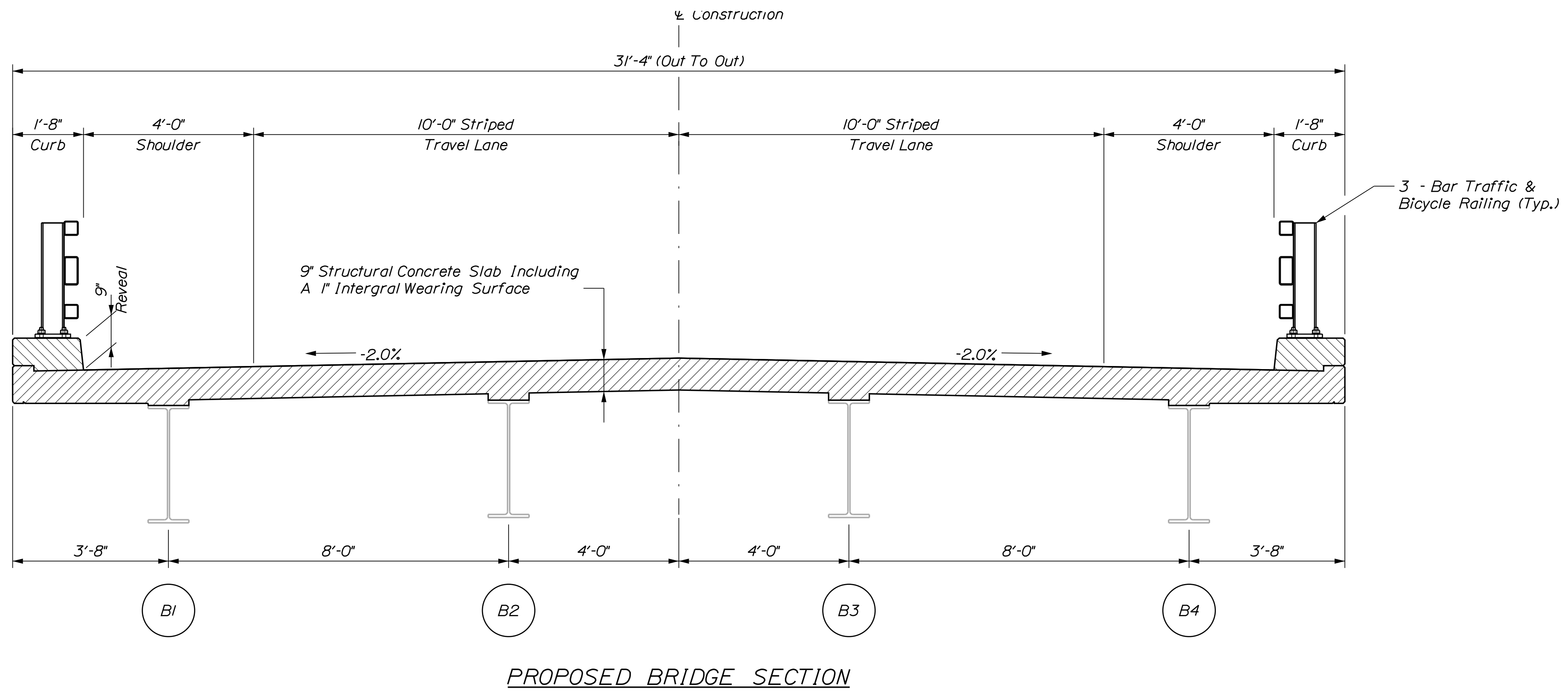
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P.E. NUMBER

DATE

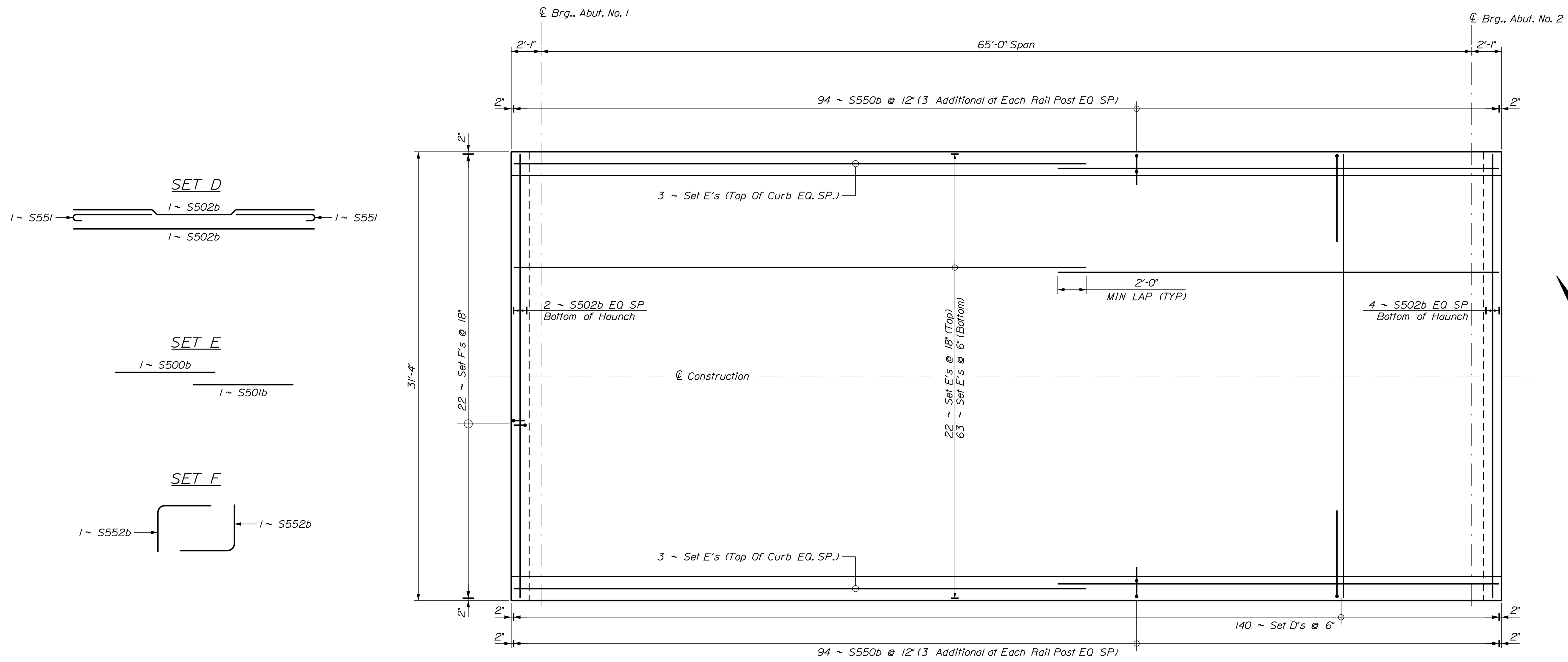


EXISTING BRIDGE SECTION



PROPOSED BRIDGE SECTION

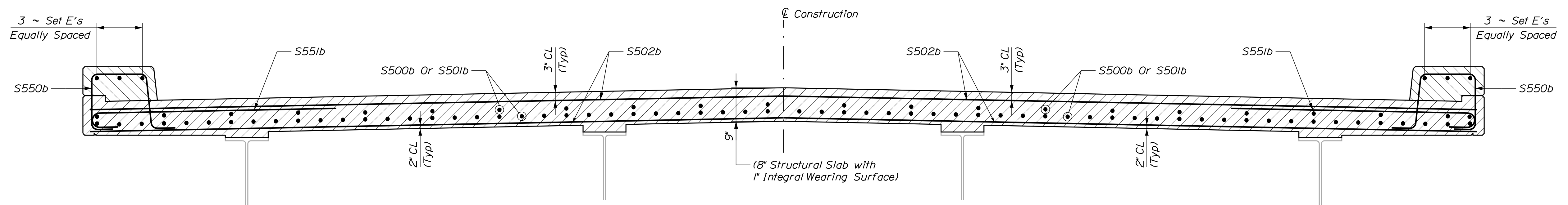
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365500	
THOROUGHFARE BRIDGE PLEASANT POND RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES		WIN 023655.00	
BRIDGE TYPICAL SECTIONS		BRIDGE NO. 3925 BRIDGE PLANS	
PROJ. MANAGER	T. BEAULIEU	BY	DATE
DESIGN/DETAILED	M. GRAY	MRP	11-2022
CHECKED/REVIEWED	R. NAOUS	J. BRUNELLE	11-2022
DESIGN/DETAILED2			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
		SIGNATURE	
		P.E. NUMBER	
		DATE	
SHEET NUMBER			
25			
OF 30			



Superstructure Notes:

1. Blocking indicated by Bottom of Slab elevations on sheet 24 has been adjusted in an attempt to avoid negative blocking values. Field adjustment may be required.
2. Provide 2" Clear Cover To All Reinforcing Unless Noted Otherwise.
3. Precast deck panels are not allowed on this project.

SUPERSTRUCTURE REINFORCING PLAN



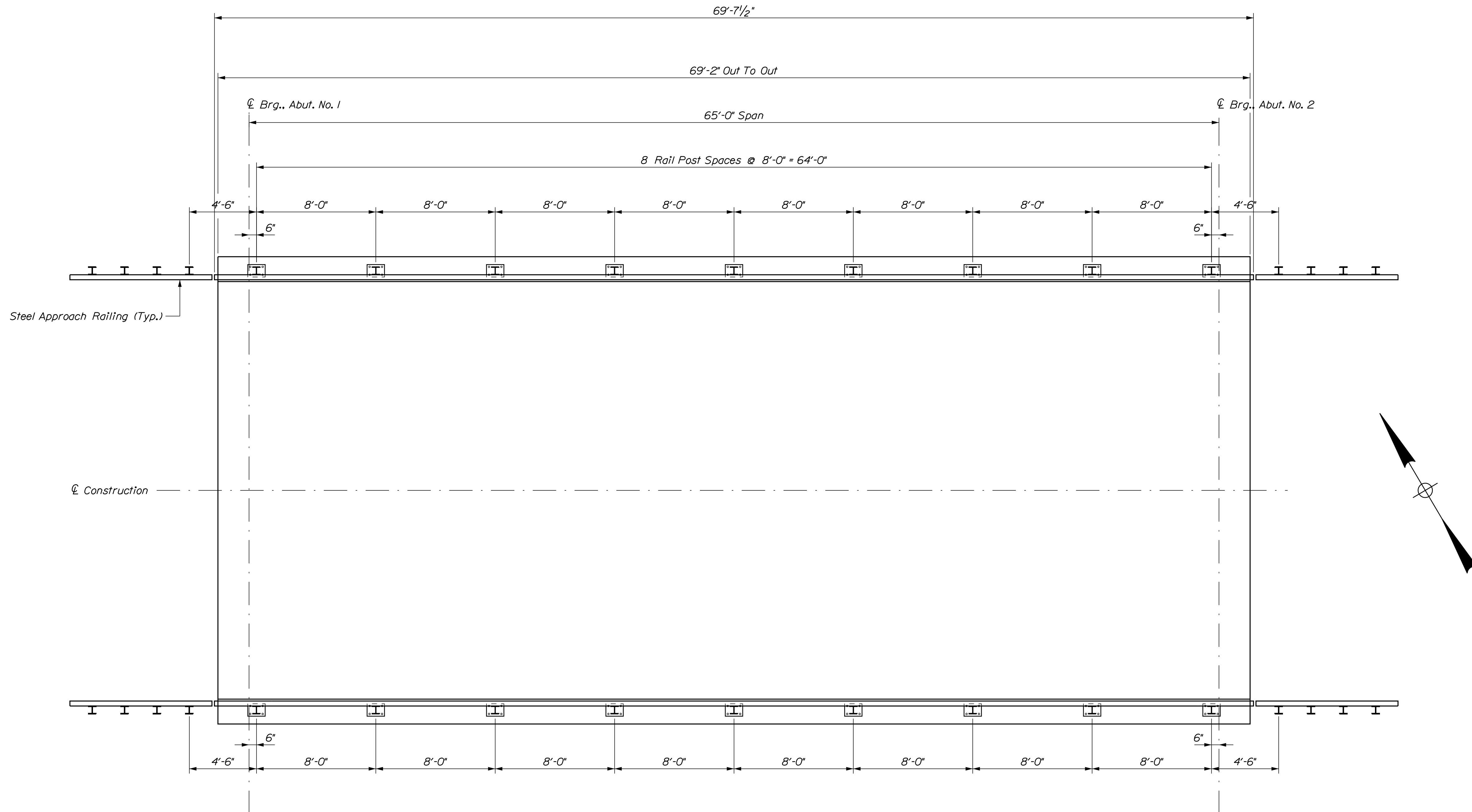
TYPICAL SUPERSTRUCTURE REINFORCING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2365500
WIN
023655.00
BRIDGE NO. 3925
BRIDGE PLANS

PROJ. MANAGER	T. BEAULIEU	BY	DATE
DESIGN-DETAILED	M. GRAY	MRP	11-2022
CHECKED-REVIEWED	R. NAJUS	J. BRUNELLE	11-2022
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

THOROUGHFARE BRIDGE
PLEASANT POND
RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES
SUPERSTRUCTURE REINFORCING

SHEET NUMBER
26
OF 30

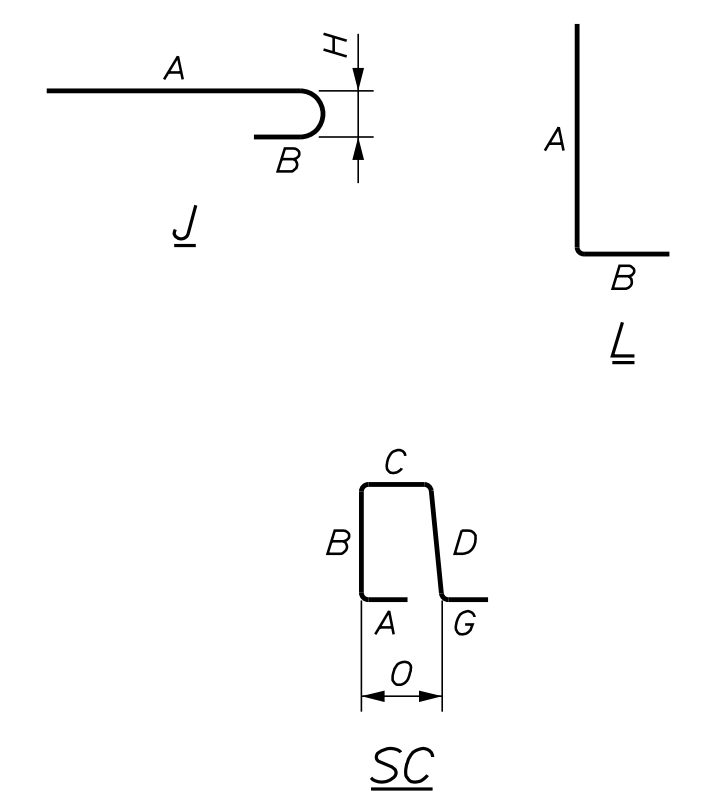


STEEL BRIDGE RAILING LAYOUT
 No Bridge Deck Drains Are Required

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365500	
THOROUGHFARE BRIDGE PLEASANT POND RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES		BRIDGE NO. 3925 WIN 023655.00	
STEEL BRIDGE RAILING LAYOUT		BRIDGE PLANS	
SHEET NUMBER		DATE	
27		SIGNATURE	
OF 30		P.E. NUMBER	
		DATE	
		FIELD CHANGES	
		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		BY	
		DATE	
		10-2022	
		10-2022	
		M.P.	
		M.A.C.	
		T. BEALLIEU	
		M. GRAY	
		R. NAQUIS	
		DESIGN-DETAILED	
		DESIGN-REVIEWED	
		DESIGN-DETAILED	
		DESIGN-REVIEWED	
		PROJ. MANAGER	

STRAIGHT BARS				BENT BARS														
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
<i>Abutment No. 1</i>																		
A500b	2	34'-10"	Top of Existing Back Wall	A550b	8	4'-3/4"	L	2'-10"	1'-5/4"									Top of Existing Back Wall
A501b	4	1'-5/4"	Top of Existing Back Wall	A551b	46	2'-10/2"	L	1'-5/4"	1'-5/4"									Top of Existing Back Wall
<i>Abutment No. 2</i>																		
B501b	8	1'-5/4"	Top of Existing Back Wall	B552b	23	4'-2/4"	L	2'-9"	1'-5/4"									Top of Existing Back Wall
B502b	23	2'-8 3/4"	Top of Existing Back Wall															
<i>SuperStructure</i>																		
S500b	89	40'-0"	Deck	S550b	188	5'-4"	SC	0'-10"	1'-2 3/4"	1'-3"	1'-2/4"			0'-10"			1'-3/2"	SuperStructure
S501b	89	30'-10"	Deck	S551b	280	7'-0"	J	6'-0"	0'-7"						0'-5"			Curb
S502b	286	31'-00"	Deck	S552b	44	1'-10"	L	0'-11"	0'-11"									Deck
				<i>Deck Ends</i>														

TYPE - BENDING DIAGRAMS

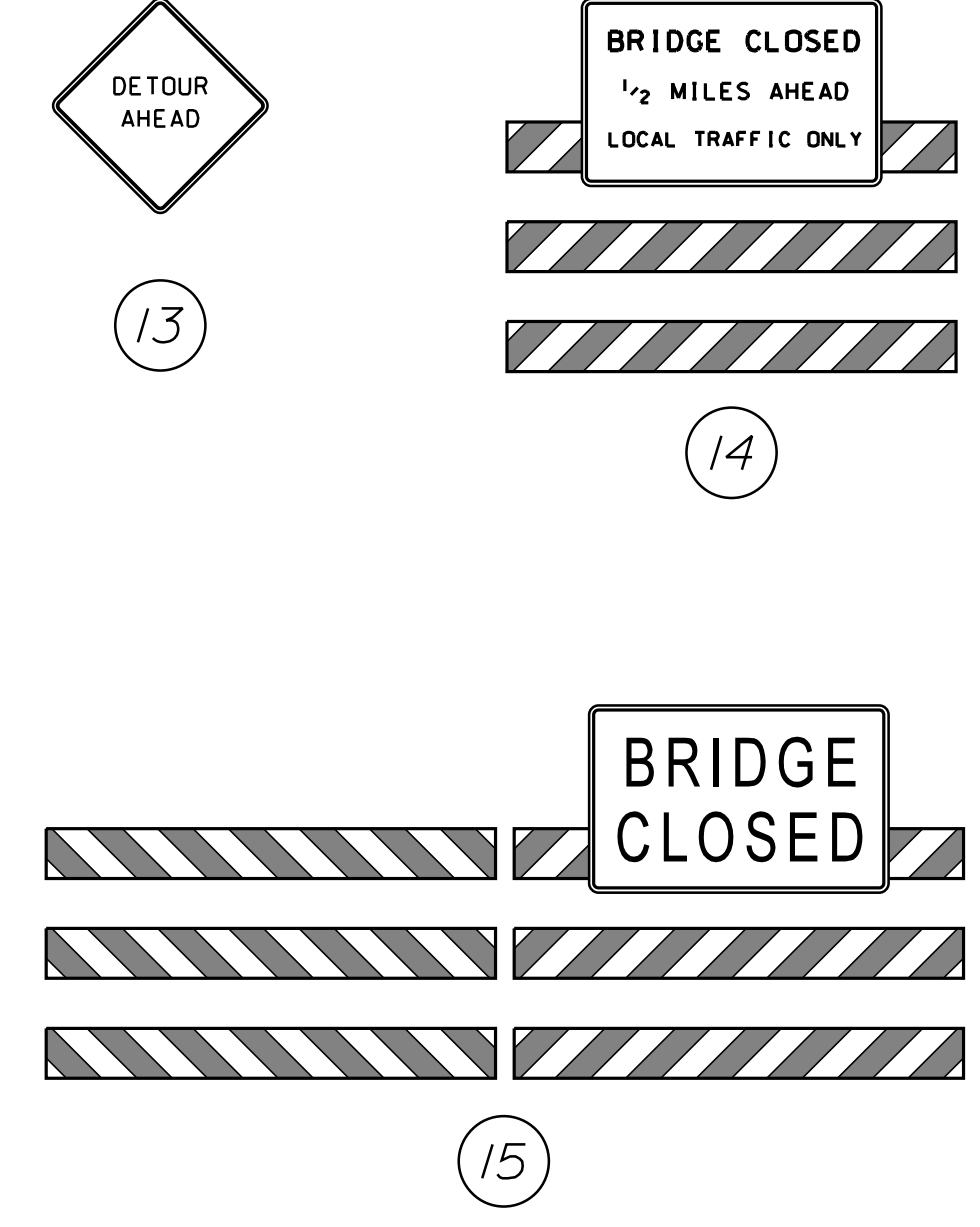
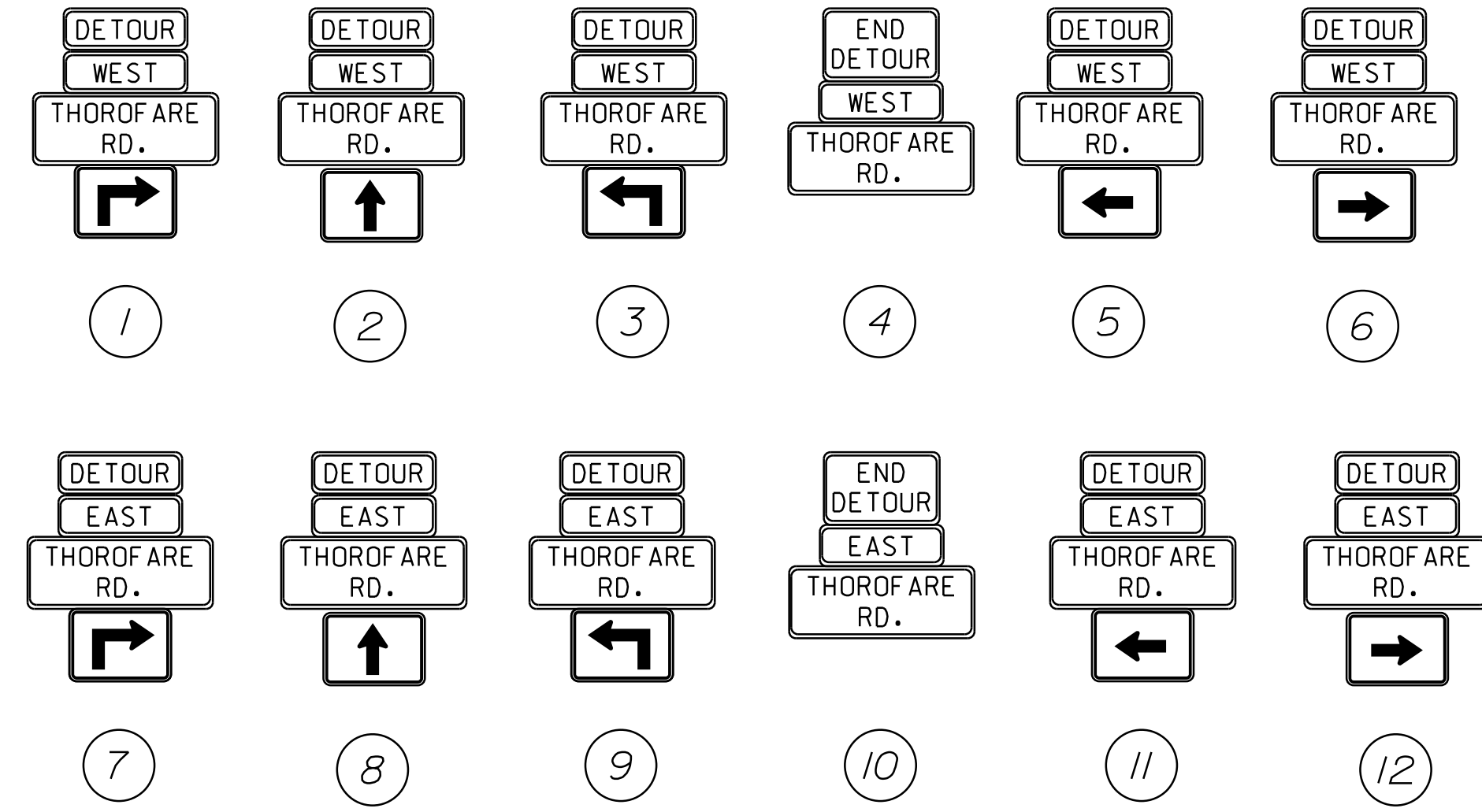


All dimensions are out-to-out of bar.
 Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.
 Plain Reinforcing Steel: ASTM A 615, Grade 60
 Stainless Steel Reinforcing: ASTM A955, Grade 75
 Glass Fiber Reinforced Polymer: ASTM D7957
 Low-Carbon Chromium Steel: ASTM A1035, Type CS, Grade 100

GENERAL NOTES

- The first digit(s) following the letter(s) of the mark indicate the size of the bar:
 Mark "A502" = bar size #5
 Mark "P805" = bar size #8
 Mark "S650" = bar size #6
 Mark "P1404" = bar size #14
- The lower case letter following the bar number indicates the material of the bar.
 "A500b", b = (Black) Plain Steel
 "A550s", s = Stainless Steel
 "S500p", p = Glass Fiber Reinforced Polymer
 "P510c", c = Low-Carbon Chromium Steel

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2365500		WIN 023655.00		BRIDGE NO. 3925		BRIDGE PLANS	
THOROUGHFARE BRIDGE PLEASANT POND		RICHMOND-LITCHFIELD KENNEBEC & SACADAHOC COUNTIES		REINFORCING STEEL SCHEDULE		SHEET NUMBER 28		OF 30	
PROJ. MANAGER	T. BEALLIEU	DESIGN-DETAILED	M. GRAY	CHECKED-REVIEWED	R. NAJUS	DESIGN-DETAILED		REVISIONS 1	
BY	MRP	DATE	10-2022	SIGNATURE		P.E. NUMBER		DATE	
FIELD CHANGES		REVISIONS 2							
		REVISIONS 3							
		REVISIONS 4							



STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2365500		BRIDGE NO. 3925 WIN 023655.00 BRIDGE PLANS	
THOROUGHFARE BRIDGE PLEASANT POND KENNEBEC & SAGadahoc COUNTIES RICHMOND-LITCHFIELD		DETOUR MAP	
PROJ. MANAGER	T. BEAULIEU	BY	
DESIGN-DETAILED	M. GRAY	MP	10-2022
CHECKED-REVIEWED	R. NAUUS	MAC	10-2022
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SHEET NUMBER		DATE	
29			
OF 30			
P.E. NUMBER		SIGNATURE	

Town, County, State _____
 Approx. Property Lines _____
 Existing Right of Way _____
 Limits of Wrought Portion _____
 Control Of Access _____
 New Right of Way _____
 New Easement _____
 New Temporary Rights _____
 New R/W Within Existing R/W _____

New R/W Along Existing R/W _____
 Building _____
 Trees Conifer _____
 Deciduous _____
 Bush Line _____
 Water Edge _____
 Ledge _____
 Fence CHAIN LINK _____
 Sign _____
 Clearing Limit Line _____
 Rock/Boulder _____
 Flag Pole _____
 Stockade _____
 Well _____
 Mailbox _____

PLAN LEGEND

Existing Proposed

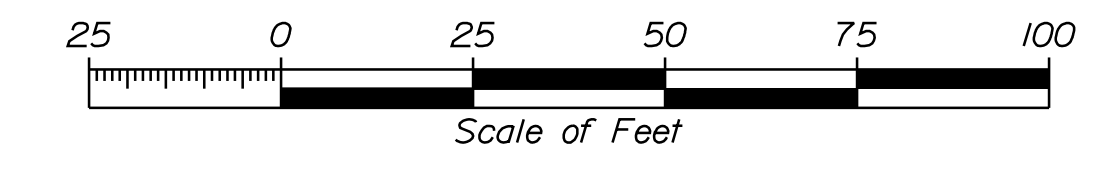
Sanitary Sewer _____
 Telephone Line _____
 Electric Line _____
 Water Line _____
 Underdrain Line _____
 Gas Line _____
 Guardrail _____
 Culvert _____

Travelled Way _____
 Ditch _____
 Catch Basin _____
 Manhole _____
 Sewer Manhole _____
 Utility Pole _____
 Fire Hydrant _____
 Curbing _____

Cut Line _____
 Stonewall _____
 Baseline _____
 Monument _____
 Iron Rod Found _____
 Replacement Pin Set _____

Fill Line _____
 Retaining Wall _____
 Traverse Point _____
 Pipe Found _____

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.



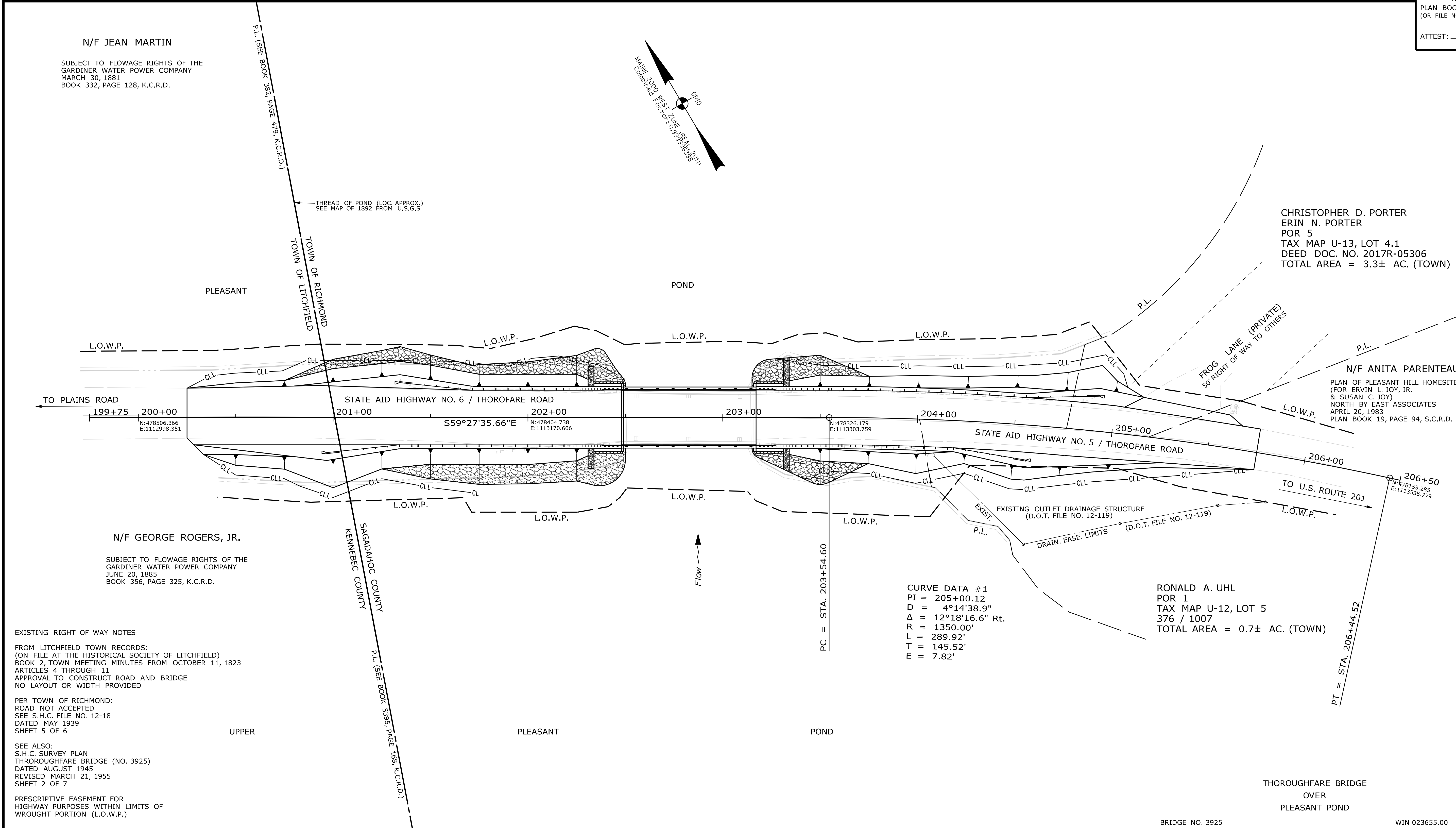
STATE OF MAINE
 REGISTRY OF DEEDS

COUNTY OF _____

RECEIVED _____, 20____

AT _____ HRS. _____ MINS. _____ M.
 AND RECORDED IN _____
 PLAN BOOK _____
 (OR FILE NO.) _____, PAGE _____

ATTEST: _____ REGISTRAR



PRELIMINARY PLAN

ITEM	TECH	CHECKED
EXISTING CONDITION PLAN	B.S.	G.L.L.
FINAL RIGHT OF WAY	B.S.	-
AREAS	B.S.	-

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460

RICHMOND
 RIGHT OF WAY MAP

NO.	DATE	REVISIONS DESCRIPTION	BY	PLAN FILED IN PLAN BOOK				PAGE COUNTY RECORD									
				NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	INSTRUMENT	DATE	BOOK	PAGE				

BRUCE A. VAN NOTE
 COMMISSIONER
 JOYCE NOEL TAYLOR
 CHIEF ENGINEER

DATE _____

STATE AID HIGHWAY NO. 5
 THOROFARE ROAD
 RICHMOND SAGADAHOC COUNTY
 FEDERAL AID PROJECT NO. 2365500

JANUARY 2022
 SCALE 1" = 25'

RIGHT-OF-WAY MAP
 SHEET 1 OF 1

D.O.T. FILE NO. 12-TBD

SHEET NUMBER
30
 OF 30

Filename: ... \00\ROW\MSTA\001_RWPLAN1.dgn
 Division: BRIDGE
 Username: Jeremiah.Brunelle
 Date: 11/16/2022