

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



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SPECIFICATIONS

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

DESIGN LOADING

Live Load..... HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2022) AADT.....	4920
Future (2042) AADT.....	5410
DHV - % of AADT.....	10
Design Hour Volume.....	522
Heavy Trucks (% of AADT).....	14
Heavy Trucks (% of DHV).....	13
Directional Distribution (% of DHV).....	51
18 kip Equivalent P 2.0.....	675
18 kip Equivalent P 2.5.....	643
Design Speed (mph).....	25

MATERIALS

Concrete:..... Class "A"

Reinforcing:
Plain Reinforcing Steel..... ASTM A615, Grade 60

BASIC DESIGN STRESSES

Concrete:
Class "A"..... f 'c = 4,000 psi
Class "LP"..... f 'c = 5,000 psi

Reinforcing:
Plain Reinforcing Steel..... f y = 60,000 psi

ANSON SOMERSET COUNTY ROBERT GARLAND BRIDGE OVER CARRABASSETT RIVER ROUTE 201A (NORTH MAIN STREET) FEDERAL AID PROJECT NO 2320000 PROJECT LENGTH 0.057 mi. BRIDGE NO. 2615

UTILITIES

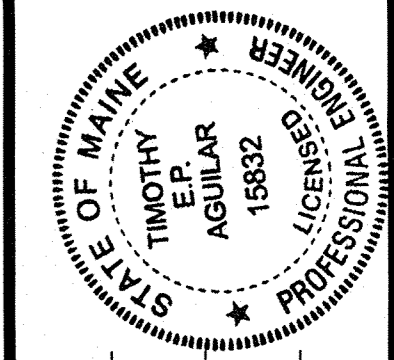
Anson & Madison Water District
Anson & Madison Sanitary District
Charter Communications
Central Maine Power
Somerset Telephone Company (TDS of Maine)
Town of Anson

MAINTENANCE OF TRAFFIC

Maintain one 12'-0" wide lane of one - way traffic using temporary traffic signals during the project.

<u>PROJECT LOCATION</u>	Robert Garland Bridge (#2615) over Carrabassett River. Located 0.12 of a mile north of Route 234. Lat./Long. 44°51'14.4" N 69°53'45.9" W
<u>PROGRAM AREA</u>	Highway-Bridges Traditional
<u>OUTLINE OF WORK</u>	Bridge Wearing Surface Replacement

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
DATE 6/24/23
COMMISSIONER: [Signature]
DEPUTY CHIEF ENGINEER: [Signature]



SIGNATURE
15832
P.E. NUMBER
06/22/2023
DATE

PROJECT INFORMATION
PROGRAM Bridge Program
PROJECT MANAGER Jason Stetson
DESIGNER William Casey
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

ANSON
ROBERT GARLAND BRIDGE
TITLE SHEET

SHEET NUMBER
1
OF 12

WIN 23200.00

23200.00

Date: 6/22/2023

Username: Jeremihah.Brunelle

Division: BRIDGE

Filename: \00\BRIDGE\MSTA\001_Title.dgn

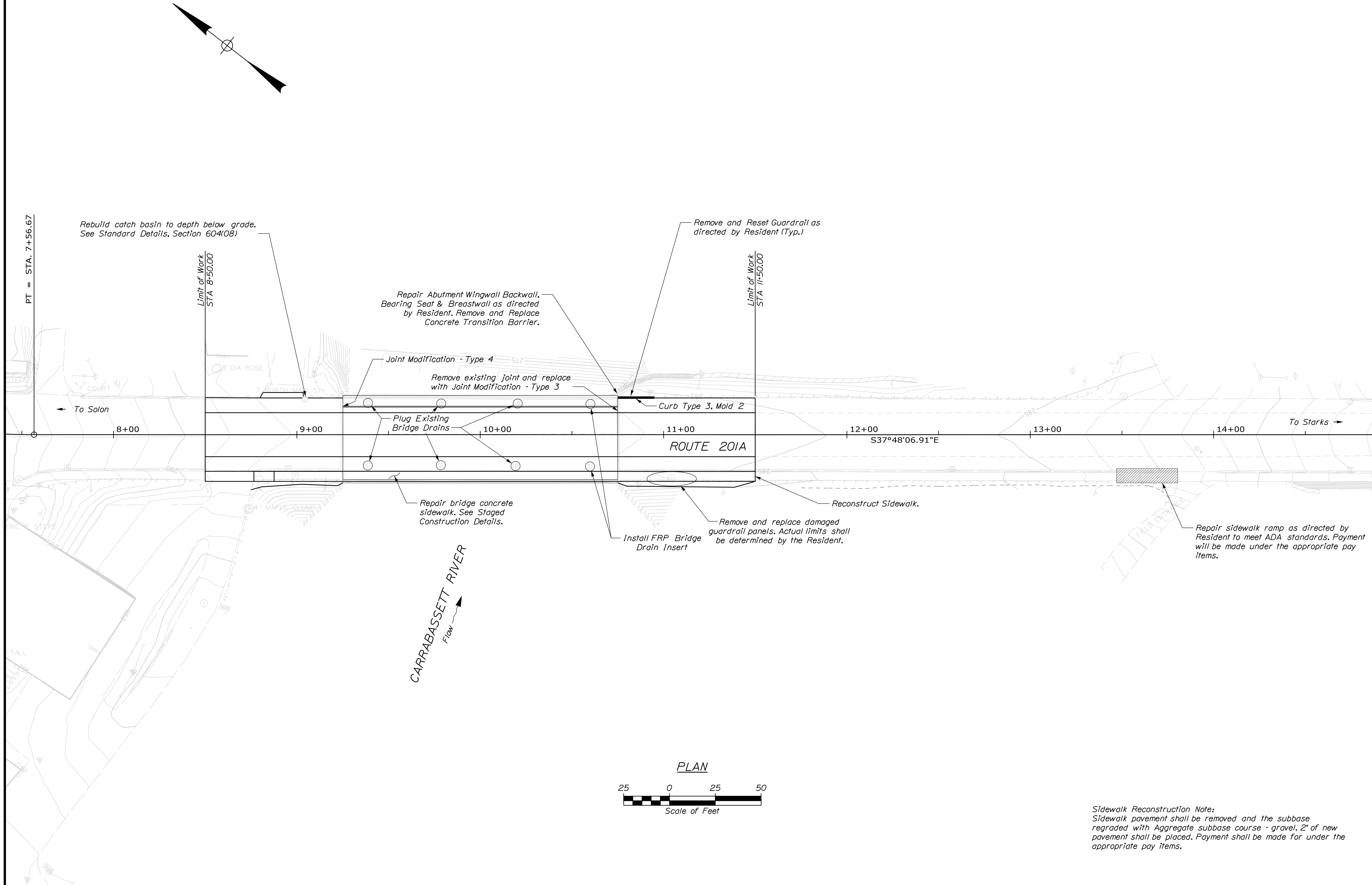
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.202	REMOVING PAVEMENT SURFACE	230	SY
202.30	REMOVING EXISTING CONCRETE WEARING SURFACE	1	LS
203.20	COMMON EXCAVATION	42	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	10	CY
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	111	T
403.209	HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, ISLANDS, & INCIDENTALS)	16	T
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	119	T
409.15	BITUMINOUS TACK COAT - APPLIED	64	G
502.75	PLUGGING EXISTING BRIDGE DRAINS	6	EA
502.78	FRP BRIDGE DRAIN INSERT	2	EA
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	500	LB
503.13	REINFORCING STEEL, PLACING	500	LB
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (230 SY)	1	LS
518.50	REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 8 IN.	740	SF
518.51	REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 8 IN.	350	SF
518.60	REPAIR OF VERTICAL SURFACES < 8 IN.	540	SF
518.61	REPAIR OF VERTICAL SURFACES >= 8 IN.	3	CY
518.80	CONCRETE CRACK REPAIR	25	LF
520.243	BRIDGE JOINT MODIFICATION TYPE 3	1	EA
520.244	BRIDGE JOINT MODIFICATION TYPE 4	1	EA
526.301	PORTABLE CONCRETE BARRIER TYPE 1 (340 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	1	EA
527.34	WORK ZONE CRASH CUSHIONS	2	UN
604.164	REBUILDING CATCH BASIN	1	EA
606.36	GUARDRAIL REMOVED AND RESET	75	LF
608.26	CURB RAMP DETECTABLE WARNING FIELD	16	SF
609.23	TERMINAL CURB TYPE 1	2	EA
609.31	CURB TYPE 3	175	LF
609.38	RESET CURB TYPE 1	150	LF
615.07	LOAM	3	CY
618.14	SEEDING METHOD NUMBER 2	1	UN
619.12	MULCH	1	UN
619.14	EROSION CONTROL MIX	5	CY
627.18	12" SOLID WHITE PAVEMENT MARKING	50	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	900	LF
627.77	REMOVING PAVEMENT MARKINGS	800	SF
627.78	TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	2400	LF
629.05	HAND LABOR, STRAIGHT TIME	10	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)	10	HR
631.21	ROAD BROOM (INCLUDING OPERATORS AND HAULER)	5	HR
639.19	FIELD OFFICE TYPE B	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (45 CD)	1	LS
652.38	FLAGGER	360	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

- All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- 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,
All exposed surfaces of Concrete Transition Barriers,
Newly repaired concrete surfaces.
- 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.
- The bridge deck evaluation report of the existing bridge may be accessed at the MaineDOT web address. The report contains visual inspection information and deck core data of the bridge. There is no assurance that the information or data is a true representation of the conditions of the entire deck.
- 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 and Time.
- Dimensions and details shown in these plans have been obtained from limited field measurements and may not accurately reflect actual field conditions. Accordingly, the Contractor shall take field measurements- of all existing components impacted by the proposed work to ensure consistency with the proposed work. Any discrepancies in dimensions, character or extent of the existing features that affect the proposed work shall be brought to the attention of the Resident before advancing the work.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		23200.00		WIN 23200.00		BRIDGE NO. 2615 BRIDGE PLANS	
ROBERT GARLAND BRIDGE CARRABASSETT RIVER ANSON		SOMERSET COUNTY		ESTIMATED QUANTITIES & GENERAL CONSTRUCTION NOTES		SHEET NUMBER 2 OF 12	
PROJ. MANAGER	J. STETSON	BY	A. PARADIS	DATE	MAY 2023	SIGNATURE	P.E. NUMBER
DESIGN-DETAILED	W. CASEY	CHECKED-REVIEWED	T. AGUILAR	DATE	MAY 2023	SIGNATURE	P.E. NUMBER
DESIGN-DETAILED		DESIGN-DETAILED		DATE		SIGNATURE	P.E. NUMBER
REVISIONS 1		REVISIONS 1		DATE		SIGNATURE	P.E. NUMBER
REVISIONS 2		REVISIONS 2		DATE		SIGNATURE	P.E. NUMBER
REVISIONS 3		REVISIONS 3		DATE		SIGNATURE	P.E. NUMBER
REVISIONS 4		REVISIONS 4		DATE		SIGNATURE	P.E. NUMBER
FIELD CHANGES		FIELD CHANGES		DATE		SIGNATURE	P.E. NUMBER



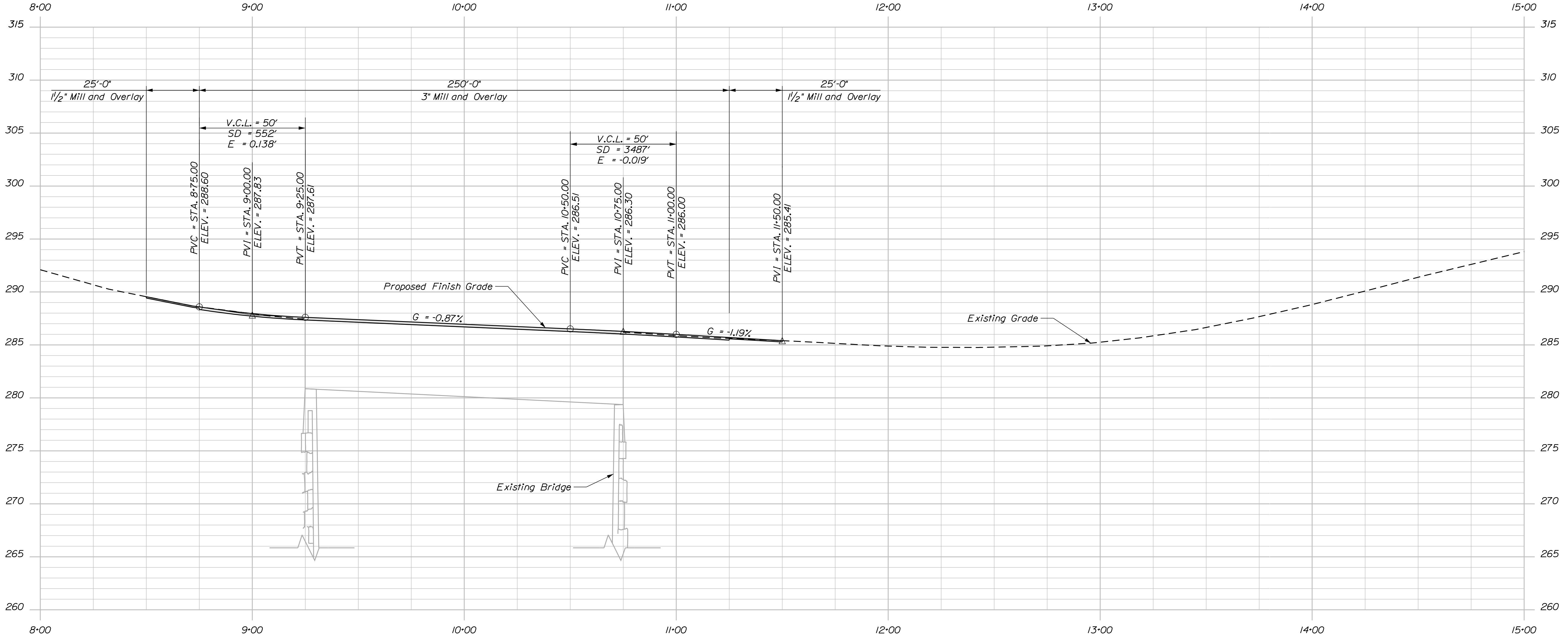
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DEPARTMENT OF TRANSPORTATION
23200.00
WIN
23200.00
BRIDGE NO. 2615
BRIDGE PLANS

PROJ. MANAGER	J. STETSON	BY	J. STETSON	DATE	
DESIGN DETAILED	W. CASEY	CHECKED	A. PARADIS	MAY 2023	SIGNATURE
DESIGN REVIEWED	T. AGUIAR	DESIGN DETAILED	J. STETSON	JUNE 2023	DATE
REVISIONS 1		REVISIONS 1			P.E. NUMBER
REVISIONS 2		REVISIONS 2			DATE
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES					

ROBERT GARLAND BRIDGE
CARRABASSETT RIVER
SOMERSET COUNTY
ANSON
GENERAL PLAN

SHEET NUMBER
3
OF 12

Sidewalk Reconstruction Note:
Sidewalk pavement shall be removed and the subbase regraded with Aggregate subbase course - gravel. 2" of new pavement shall be placed. Payment shall be made for under the appropriate pay items.



PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
23200.00
BRIDGE NO. 2615 WIN 23200.00
BRIDGE PLANS

PROJ. MANAGER: J. STETSON
DESIGN: W. CASEY
CHECKED: T. AGUIAR
DESIGNED: J. STETSON
REVISIONS: 1, 2, 3, 4
FIELD CHANGES

BY: A. PARADIS
DATE: MAY 2023
SIGNATURE: J. STETSON
P.E. NUMBER: _____
DATE: _____

ROBERT GARLAND BRIDGE
CARRABASSETT RIVER
SOMERSET COUNTY
ANSON
PROFILE

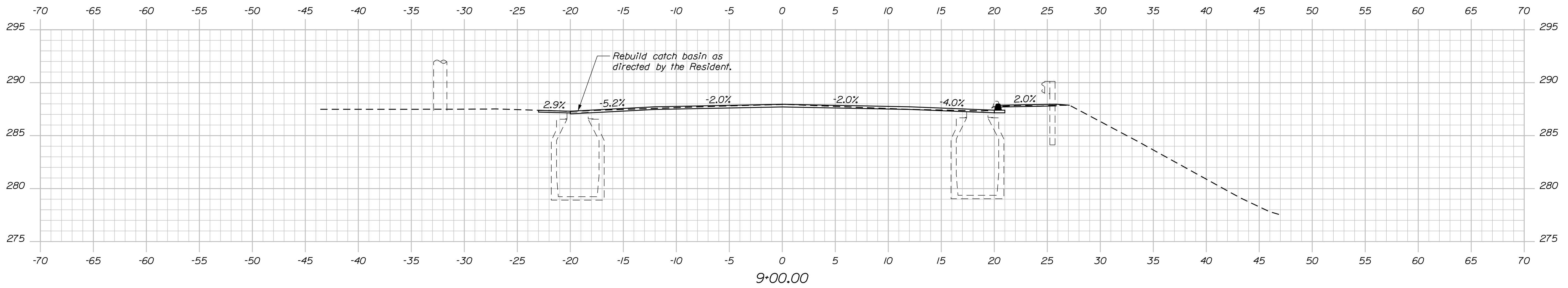
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OF 12

Date: 6/22/2023

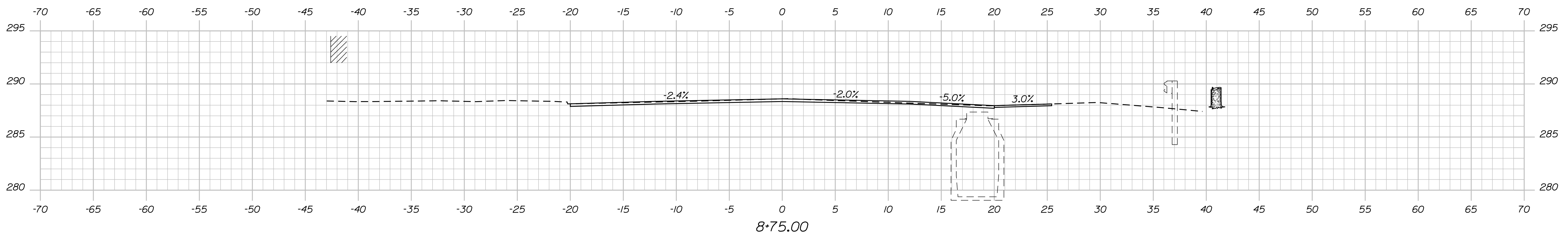
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Division: BRIDGE

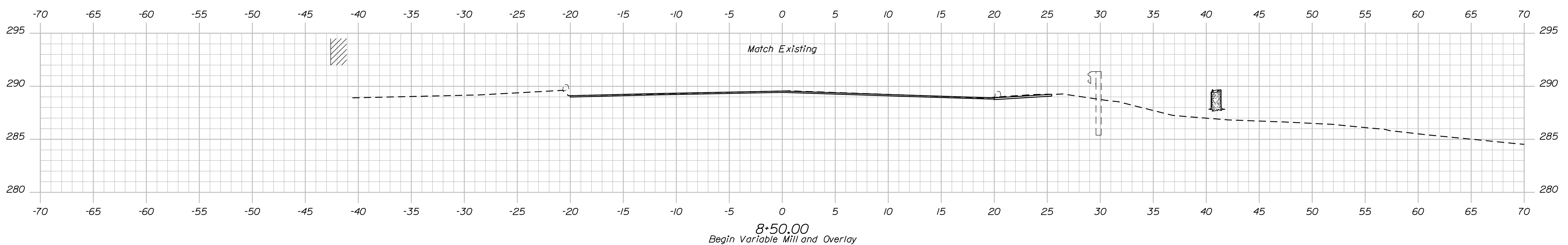
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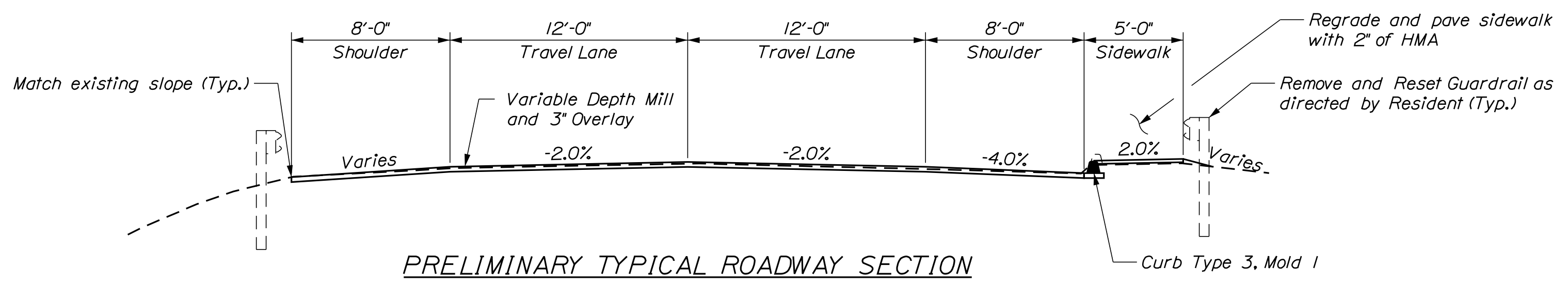
9+00.00



8+75.00



8+50.00
Begin Variable Mill and Overlay



PRELIMINARY TYPICAL ROADWAY SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
23200.00
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BRIDGE NO. 2615
BRIDGE PLANS

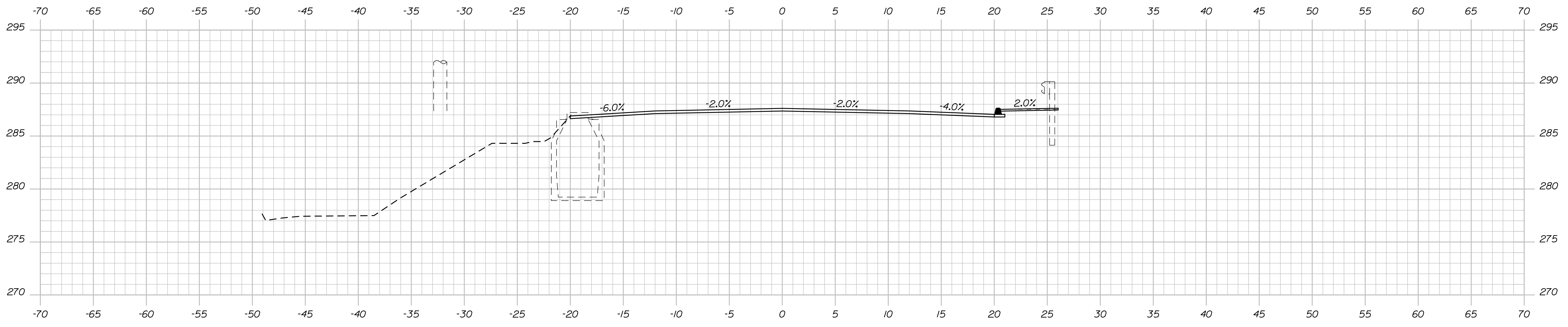
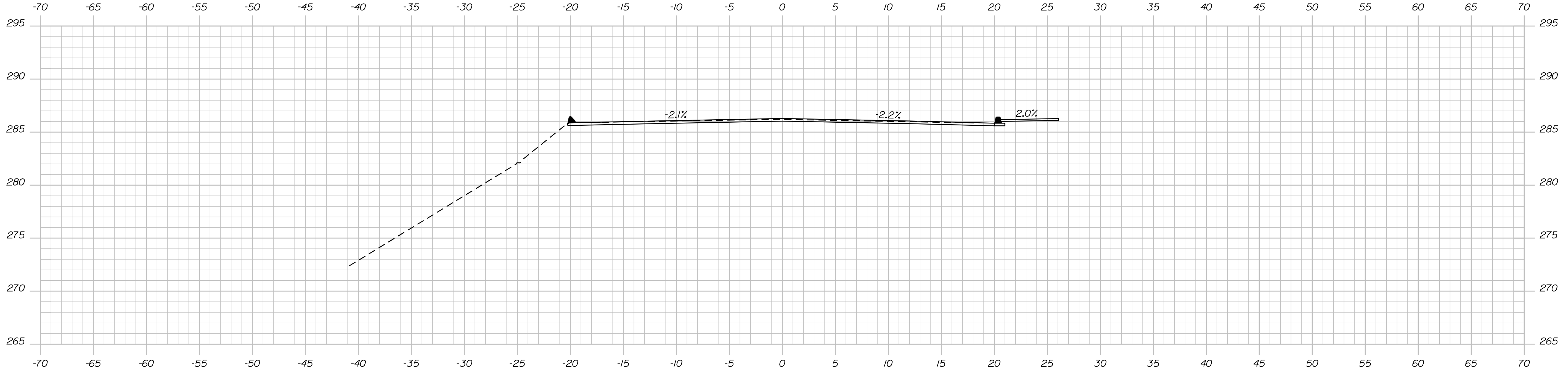
PROJ. MANAGER: J. STETSON
DESIGN: W. CASEY
CHECKED: T. AGUILAR
DESIGN: J. STETSON
REVISIONS: 1, 2, 3, 4
FIELD CHANGES

DATE	BY	DATE
MAY 2023	A. PARADIS	
JUNE 2023	J. STETSON	

SIGNATURE
P.E. NUMBER
DATE

ROBERT GARLAND BRIDGE
CARRABASSETT RIVER
SOMERSET COUNTY
ANSON
CROSS SECTIONS

SHEET NUMBER
5
OF 12



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
23200.00
BRIDGE NO. 2615
WIN
23200.00
BRIDGE PLANS

PROJ. MANAGER: J. STETSON
DESIGN DETAILED: W. CASEY
CHECKED/REVIEWED: T. AGUIAR
DESIGNS DETAILED:
REVISIONS 1:
REVISIONS 2:
REVISIONS 3:
REVISIONS 4:
FIELD CHANGES:

BY	DATE	SIGNATURE	P.E. NUMBER	DATE
A. PARADIS	MAY 2023			
J. STETSON	JUNE 2023			

ROBERT GARLAND BRIDGE
CARRABASSETT RIVER
SOMERSET COUNTY
ANSON
CROSS SECTIONS

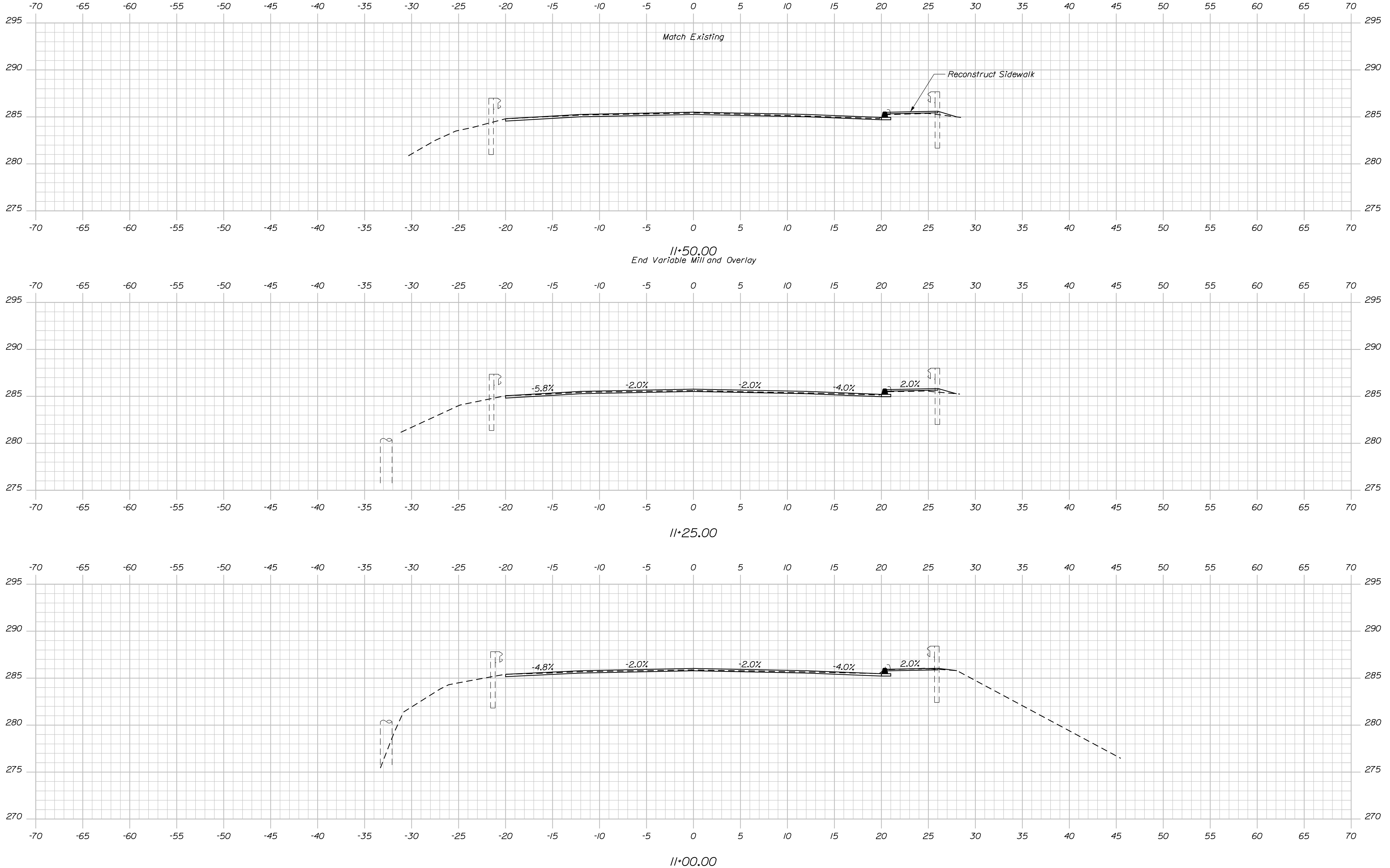
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Date: 6/22/2023

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Division: BRIDGE

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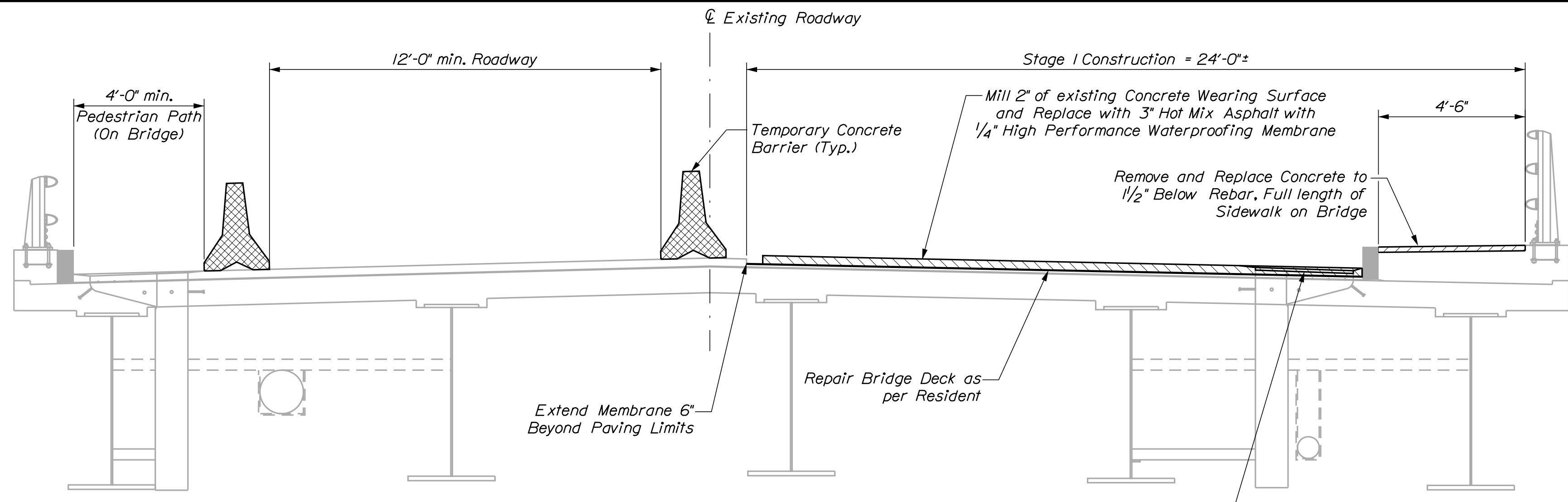
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
23200.00
WIN
23200.00
BRIDGE NO. 2615
BRIDGE PLANS

PROJ. MANAGER: J. STETSON
DESIGN-DETAILED: W. CASEY
CHECKED-REVIEWED: T. AGUIAR
DESIGN-DETAILED:
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

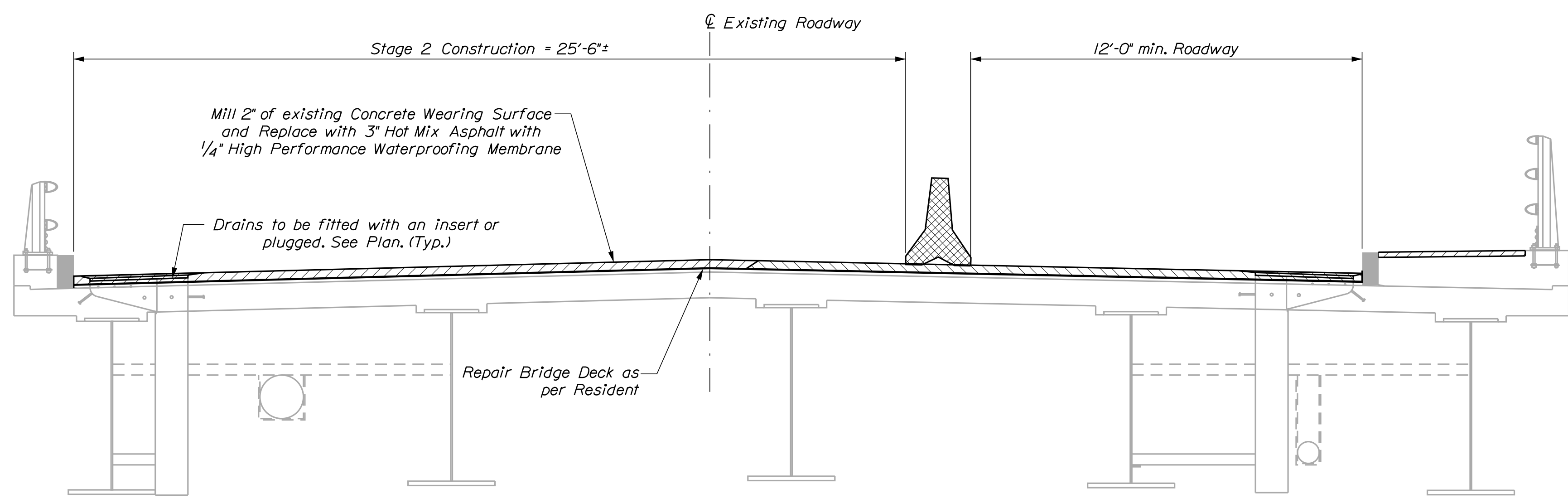
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MAY 2023	A. PARADIS			
JUNE 2023	J. STETSON			

ROBERT GARLAND BRIDGE
CARRABASSETT RIVER
SOMERSET COUNTY
ANSON
CROSS SECTIONS

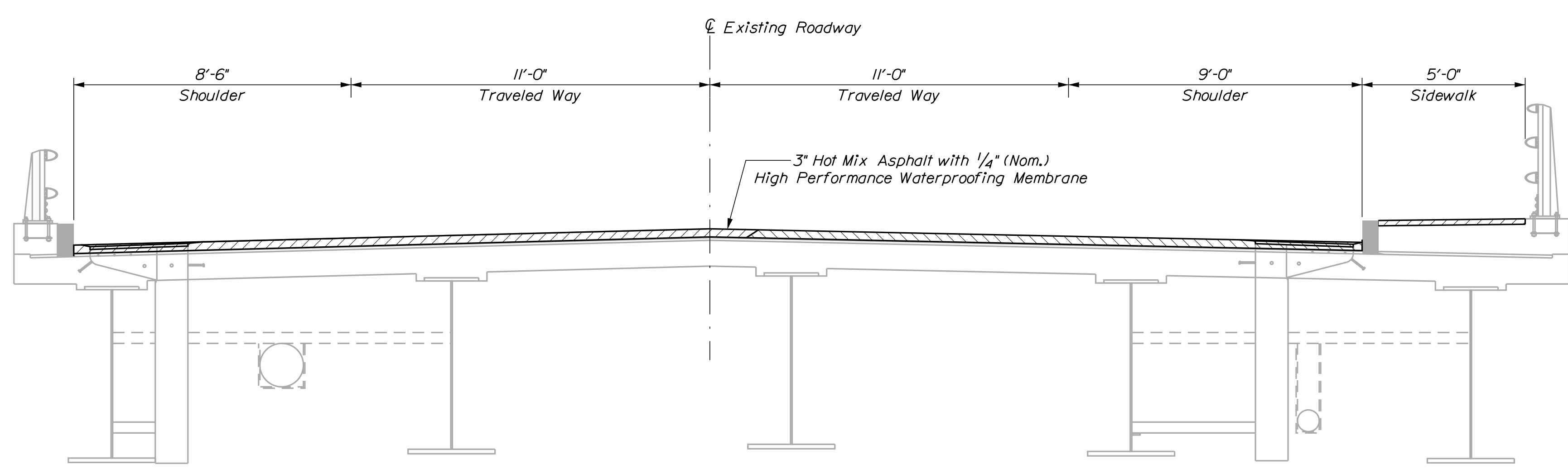
SHEET NUMBER
2
OF 12



STAGE NO. 1



STAGE NO. 2



PROPOSED SECTION

STAGED CONSTRUCTION NOTES

- Stage 1 - Maintain one 12'-0" min. wide lane of alternating traffic using traffic signals and one 4'-0" min. wide pedestrian path on downstream side. Mill 2" of existing wearing surface off and replace with 3" HMA and high performance waterproof membrane. Repair sidewalk.
- Stage 2 - Relocate and maintain one 12'-0" min. wide lane of alternating traffic using traffic signals and re-open existing sidewalk to pedestrians to upstream side. Mill 2" of remaining existing wearing surface off and replace with 3" HMA and high performance waterproof membrane.
- Stage 3 - Open both lanes to normal traffic patterns.

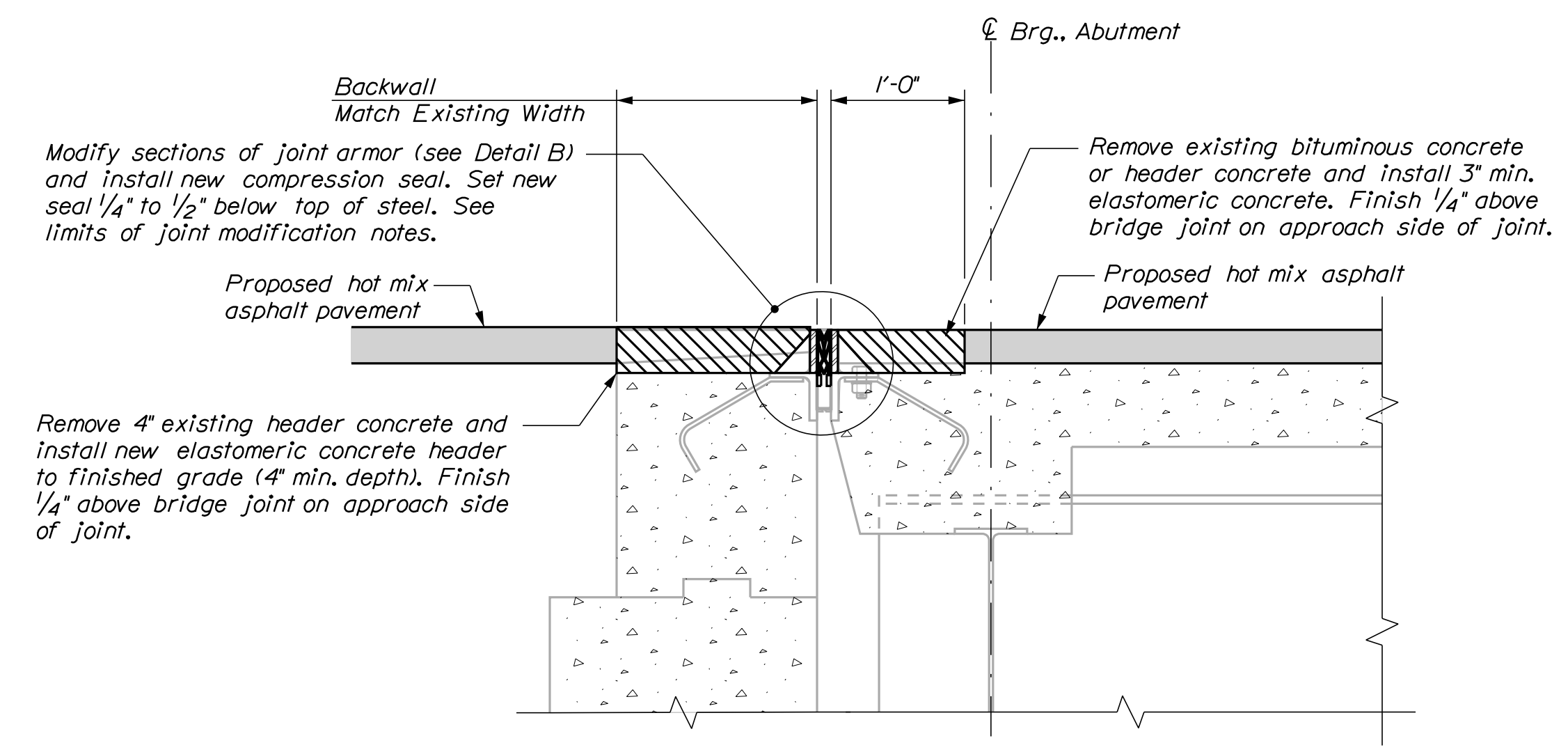
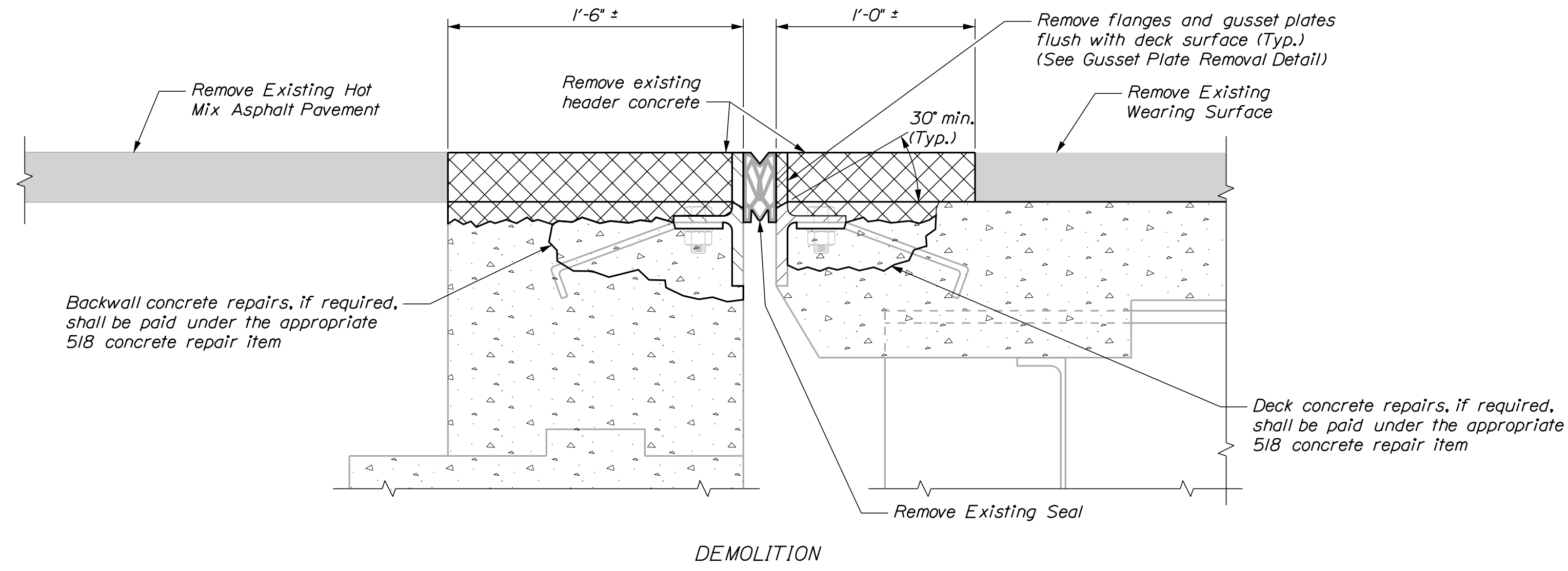
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 2615		BRIDGE PLANS	
23200.00		WIN		23200.00	
ROBERT GARLAND BRIDGE CARRABASSETT RIVER SOMERSET COUNTY		ANSON		STAGED CONSTRUCTION	
PROJ. MANAGER	J. STETSON	BY	J. STETSON	DATE	
DESIGN DETAILED	W. CASEY	CHECKED/REVIEWED	A. PARADIS	MAY 2023	SIGNATURE
DESIGN DETAILED	T. AGUIAR	DESIGN DETAILED	J. STETSON	JUNE 2023	P.E. NUMBER
REVISIONS 1		REVISIONS 1			DATE
REVISIONS 2		REVISIONS 2			
REVISIONS 3		REVISIONS 3			
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FIELD CHANGES					
SHEET NUMBER					
9					
OF 12					

Date: 6/22/2023

Username: David Shaw

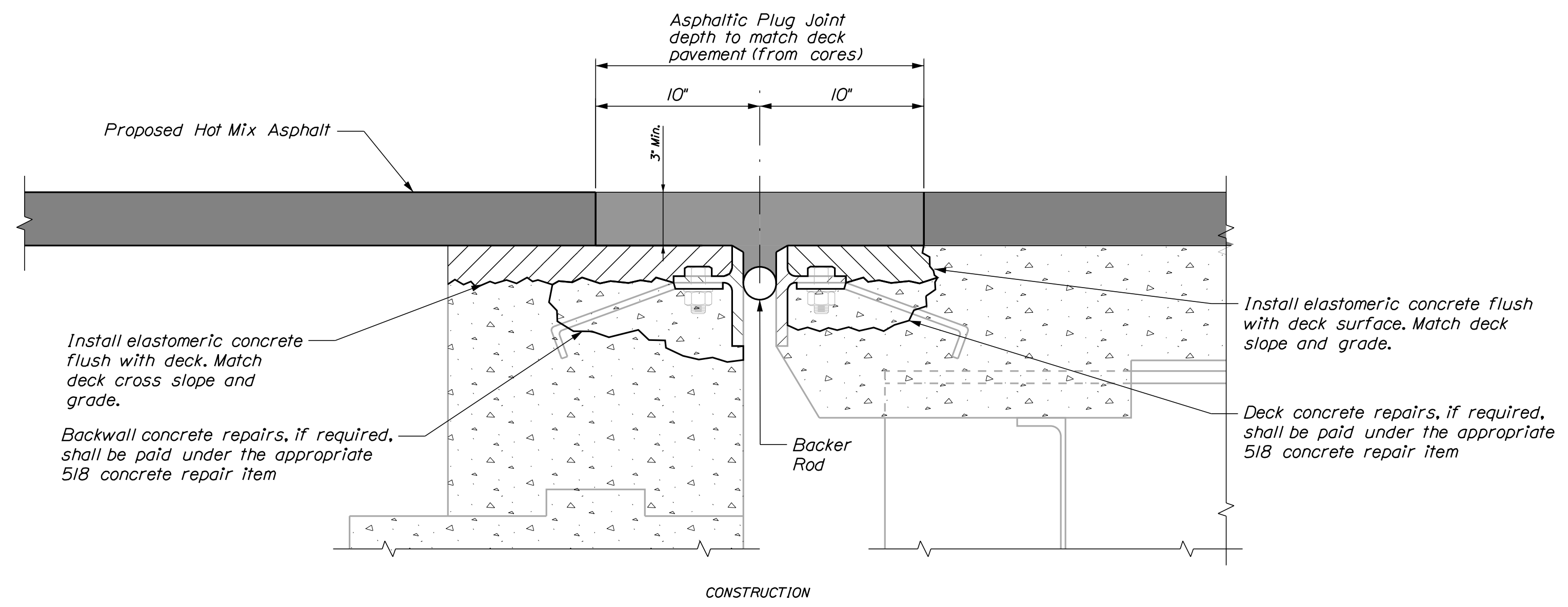
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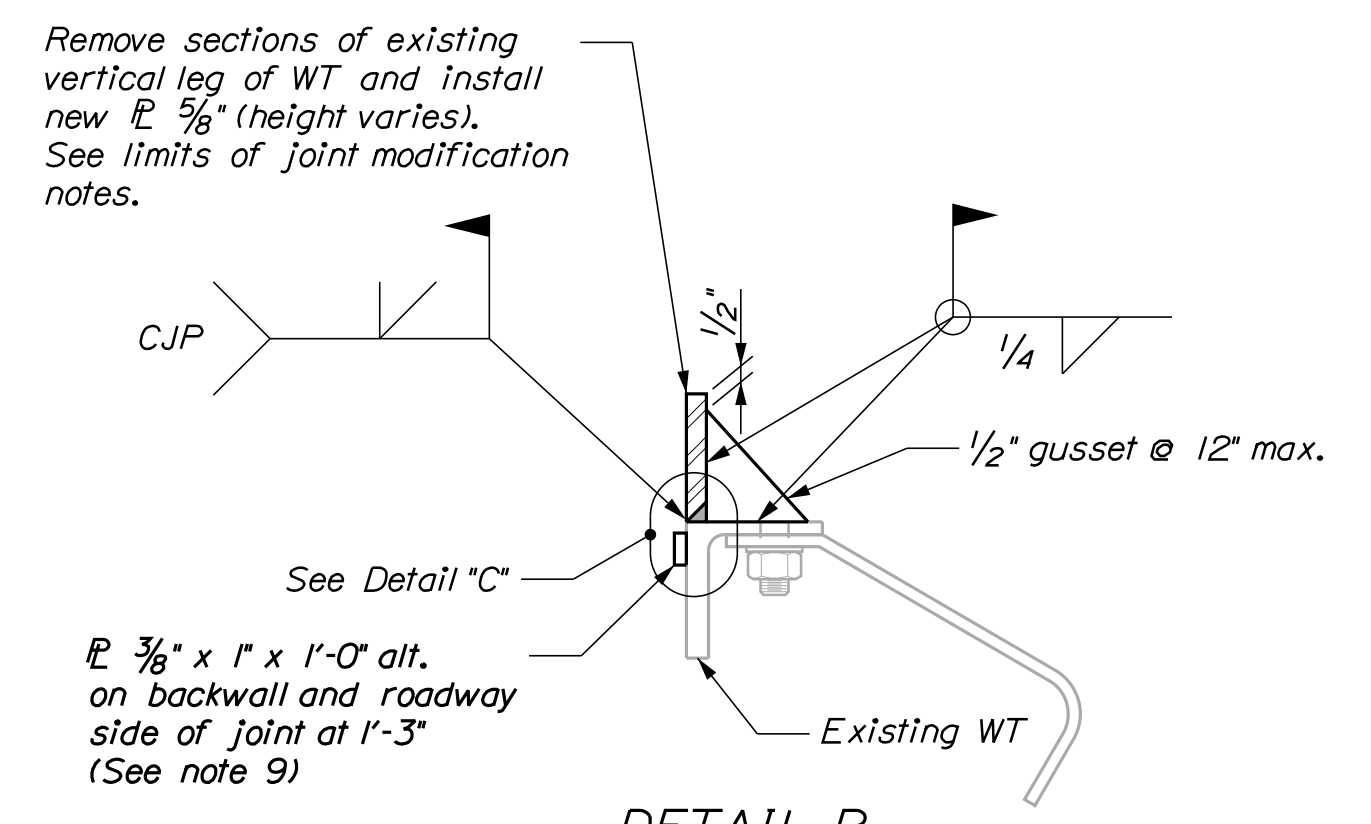
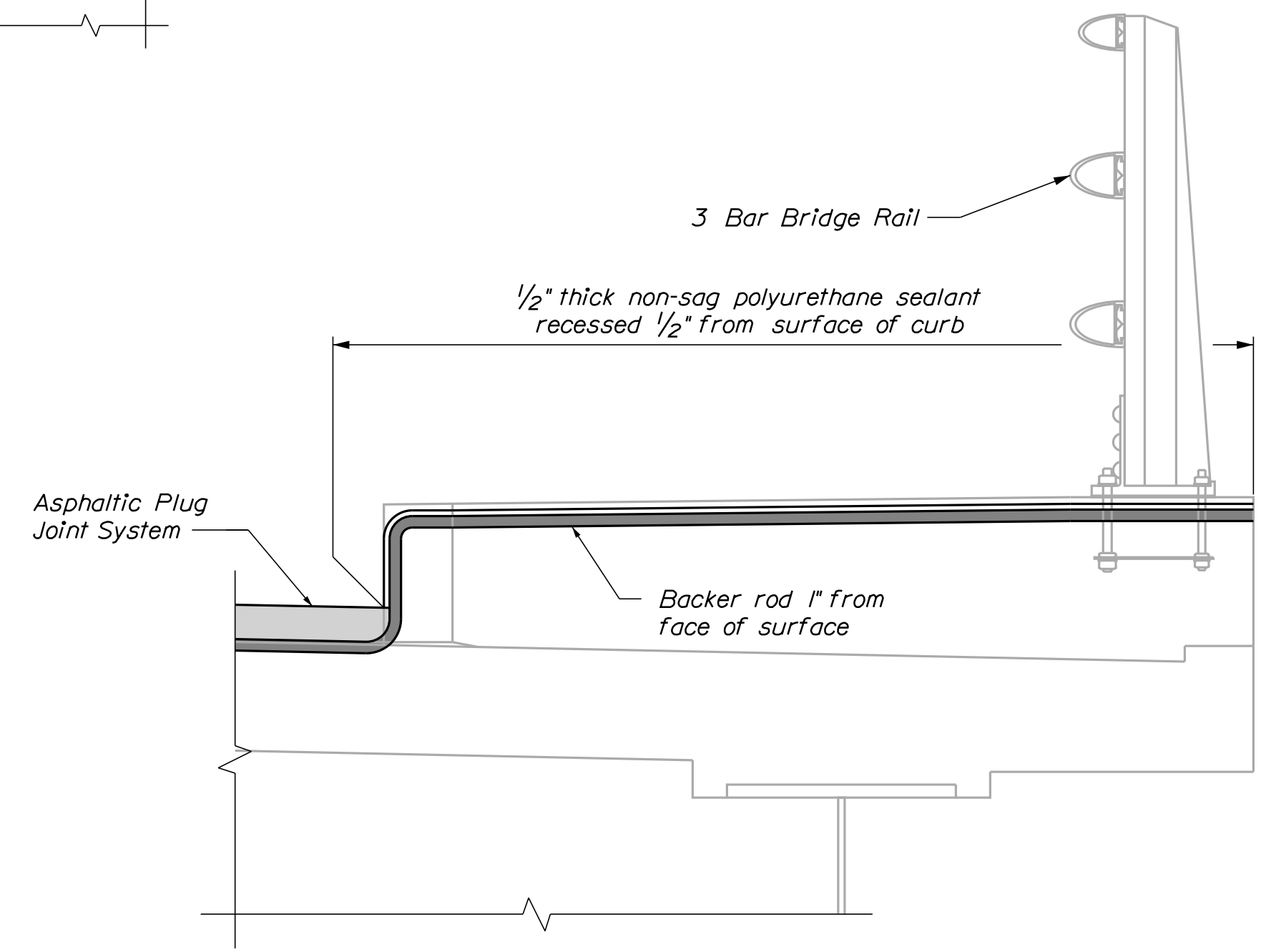
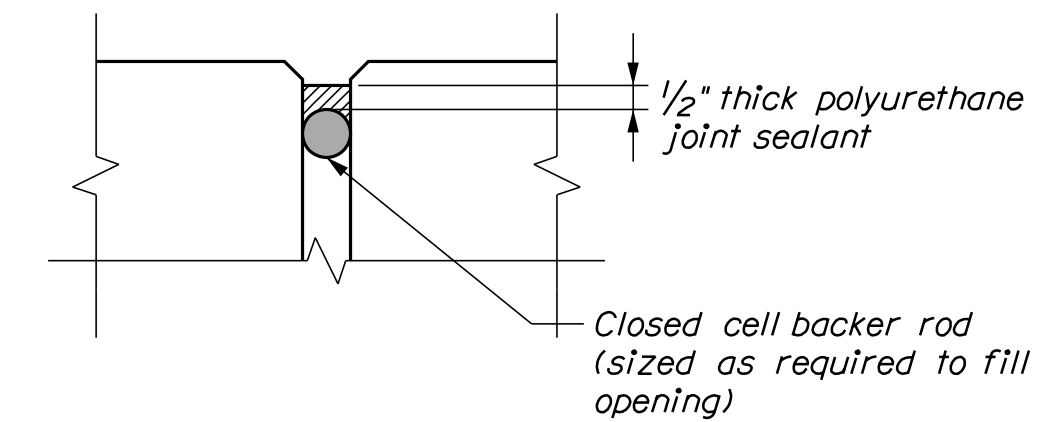
BRIDGE JOINT MODIFICATION TYPE 3
1' = 1'-0"

Limits of joint modification:
 -Compression seal - full deck width and completely through raised curbs plus six inch extensions per side
 -Elastomeric concrete and addition of 1/2" gussets - full deck width to face of raised curbs.
 -Sidewalk joint armor shall be removed and replaced in-kind. Payment shall be incidental to the Bridge Joint Modification item.

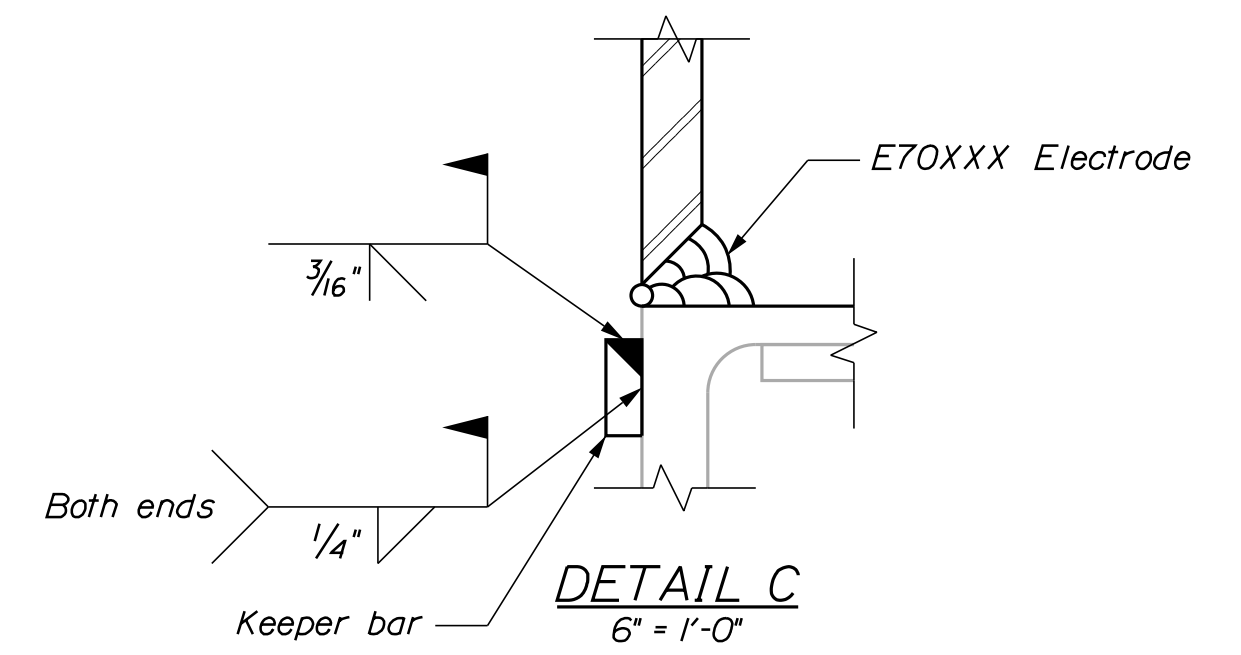


BRIDGE JOINT MODIFICATION TYPE 4

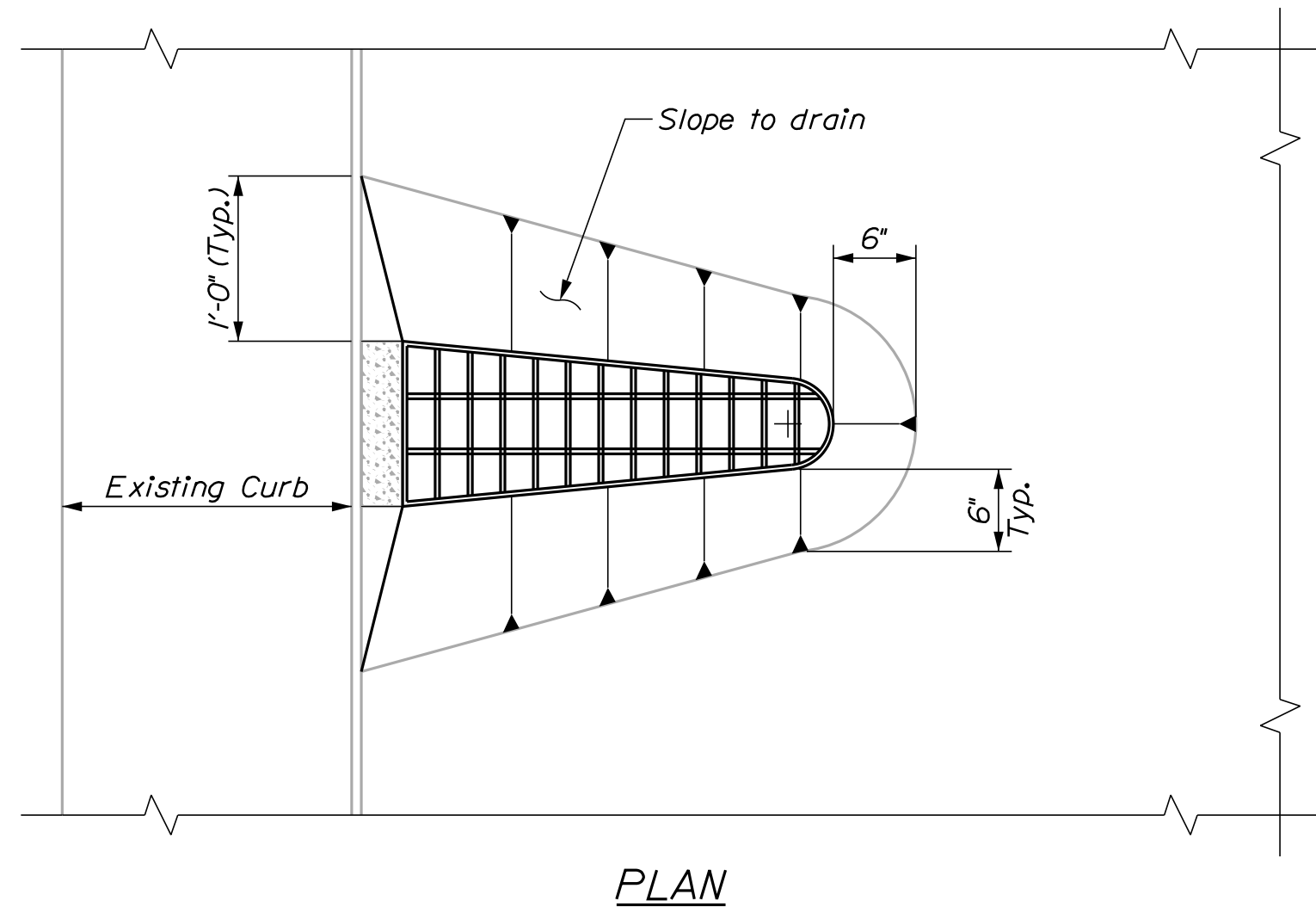
Limits of joint modification:
 -Asphaltic joint, header concrete and joint armor modification - full deck width to face of raised curbs
 -Polyurethane sealant with backer rod - vertical face and full width of bridge.
 -Remove sidewalk armor, place sidewalk concrete on bridge and sidewalk pavement on approach flush with existing sidewalk.



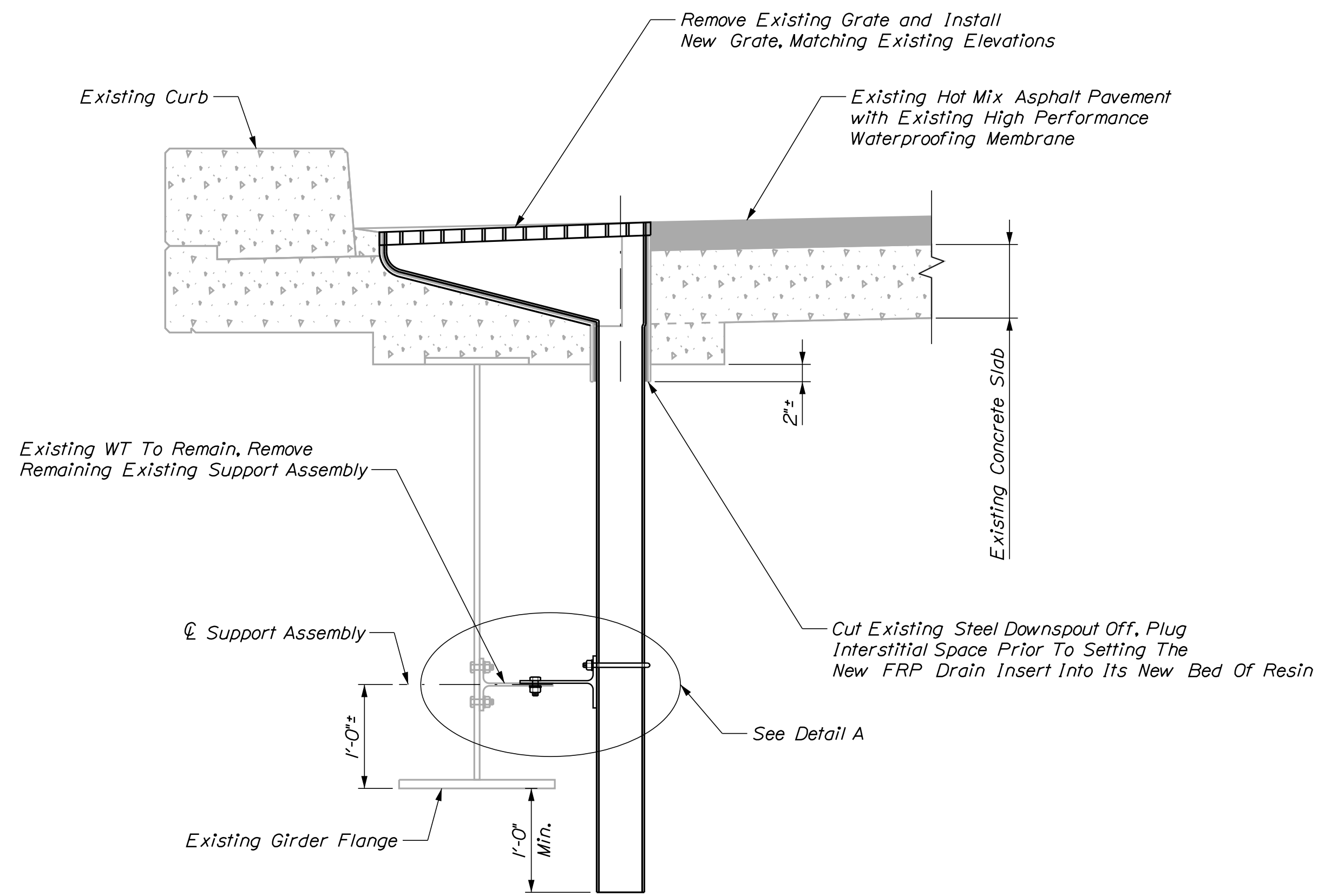
Note:
 One side of joint repair shown. Repair detail required at both sides of joint.



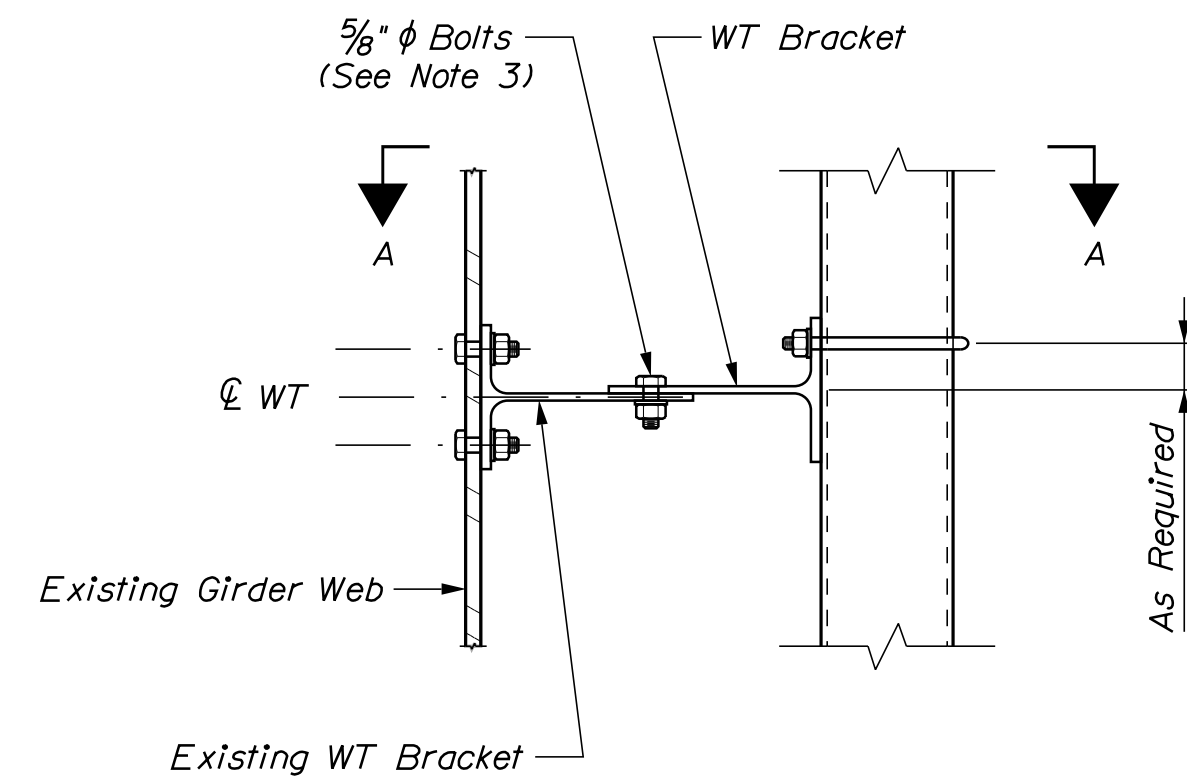
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BRIDGE PLANS	
		23200.00		WIN 23200.00	
		BRIDGE NO. 2615			
PROJ. MANAGER	J. STETSON	BY	J. STETSON	DATE	
DESIGN DETAILED	A. PARADIS	CHECKED/REVIEWED	T. AGUILAR	DATE	
DESIGN DETAILED		DESIGN DETAILED		SIGNATURE	
REVISIONS 1		REVISIONS 1		P.E. NUMBER	
REVISIONS 2		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES		FIELD CHANGES			
ROBERT GARLAND BRIDGE			SOMERSET COUNTY		
CARRABASSETT RIVER			ANSON		
JOINT DETAILS					
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OF 12					



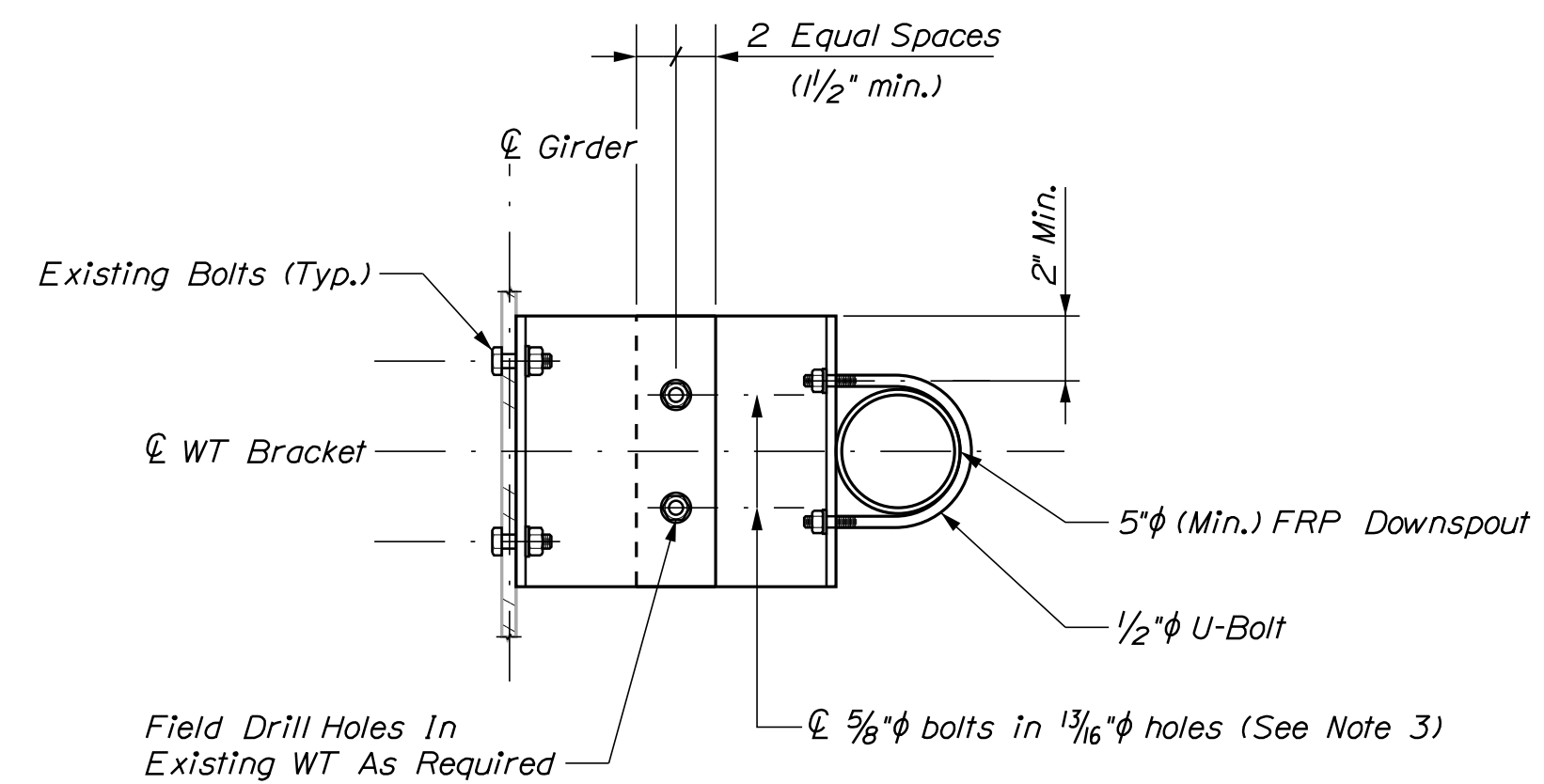
PLAN



FRP BRIDGE DRAIN INSERT ELEVATION



DETAIL A



SECTION A-A

FRP BRIDGE DRAIN INSERT NOTES

1. FRP Bridge Drain Inserts shall be designed and detailed based on the dimensions for the bridge drain details shown, and in accordance with Special Provisions Section 502, Fiber Reinforced Polymer Bridge Drain Inserts.

2. Support assembly components and all hardware shall meet the grade requirements of ASTM A36 and/or ASTM A307

3. Webs of new WT and existing WT member may be field welded in lieu of bolting shown. Minimum allowable weld size 8" long.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23200.00

BRIDGE NO. 2615 WIN 23200.00 BRIDGE PLANS

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

DATE
MAY 2023
JUNE 2023

BY
A. PARADIS
J. STEJTON

ROBERT GARLAND BRIDGE
CARRABASSETT RIVER
SOMERSET COUNTY
ANSON

SHEET NUMBER

11

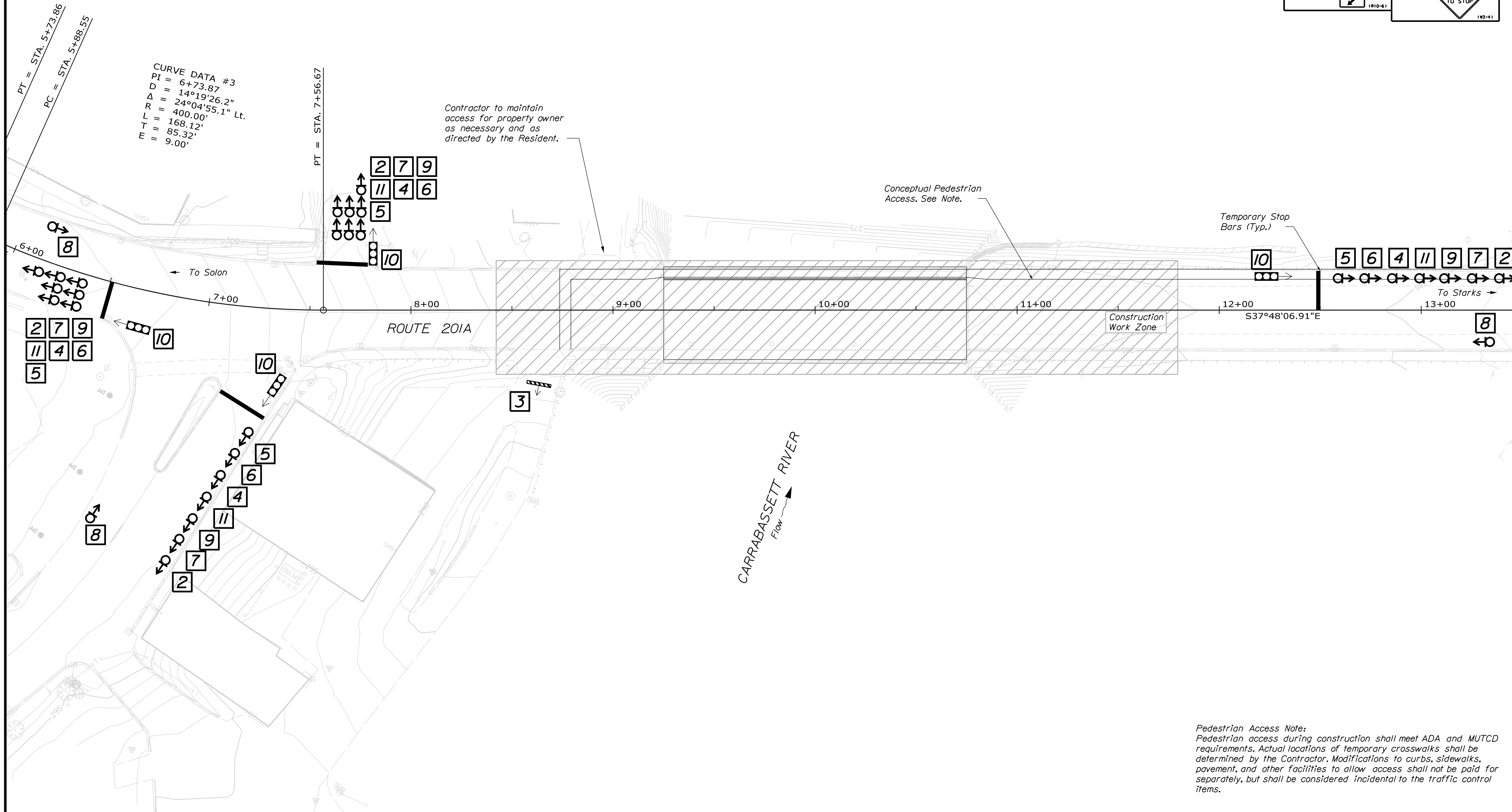
OF 12

FRP BRIDGE DRAIN INSERT

DATE

P.E. NUMBER

SIGNATURE



CURVE DATA #3
 PI = 6+73.87
 D = 14°19'26.2"
 Δ = 24°04'55.1" Lt.
 R = 400.00'
 L = 168.12'
 T = 85.32'
 E = 9.00'

Contractor to maintain access for property owner as necessary and as directed by the Resident.

Conceptual Pedestrian Access. See Note.

Temporary Stop Bars (Typ.)

Construction Work Zone

S37°48'06.91"E

CARRABASSETT RIVER
 Flow

Pedestrian Access Note:
 Pedestrian access during construction shall meet ADA and MUTCD requirements. Actual locations of temporary crosswalks shall be determined by the Contractor. Modifications to curbs, sidewalks, pavement, and other facilities to allow access shall not be paid for separately, but shall be considered incidental to the traffic control items.

1		7	
2		8	
3		9	
4		10	
5		11	

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		23200.00	
ROBERT GARLAND BRIDGE CARRABASSETT RIVER SOMERSET COUNTY		ANSON	
TRAFFIC PLAN		SHEET NUMBER	
WIN		12	
23200.00		OF 12	
BRIDGE NO. 2615		BRIDGE PLANS	
DATE		DATE	
SIGNATURE		P.E. NUMBER	
BY		DATE	
DESIGN DETAILED		DESIGN DETAILED	
CHECKED/REVIEWED		REVISIONS 1	
DESIGN DETAILED		REVISIONS 2	
DESIGN DETAILED		REVISIONS 3	
DESIGN DETAILED		REVISIONS 4	
DESIGN DETAILED		FIELD CHANGES	