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

TRAFFIC DATA

Current (2017) AADT	210
Future (2035) AADT	250
DHV - (% of AADT)	15
Design Hourly Volume	38
Heavy Trucks (% of AADT)	5
Directional Distribution (% of DHV)	52
18 kip Equivalent P 2.0	5
18 kip Equivalent P 2.5	4
Design Speed (mph)	35

MATERIALS

Concrete:
- Curbs ..... Class "LP"
- All Other ..... Class "A"

Concrete Reinforcing:
- Reinforcing Steel ..... ASTM A 615/A 615M, Grade 60

Structural Steel:
- All Material (except as noted) ..... ASTM A 709, Grade 50
- High Strength Bolts ..... ASTM F3125, Grade A325, Type 1
- Anchor Rods ..... ASTM F1554, Grade 36

BASIC DESIGN STRESSES

Concrete:
- Class "LP" ..... f 'c = 5,000 psi
- 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 μ = 120,000 psi
- ASTM A193, Grade B7 ..... F μ = 120,000 psi

BATCHELDERS GRANT TWP
OXFORD COUNTY
EVANS BROOK BRIDGE
OVER
EVANS BROOK
STATE ROUTE 113
PROJECT NO. STP-1872(400)
PROJECT LENGTH 0.08 mi.
BRIDGE NO. 5506

LIST OF DRAWINGS

MAINTENANCE OF TRAFFIC

Closed to traffic during construction.

PROJECT LOCATION:	Evans Brook Bridge (#5506) over Evans Brook located on State Route 113, 3.2 miles southerly of Route 2 Latitude 44°-21'-24.01" N Longitude 70°-59'-28.43" W
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	Deck Replacement with 345' +/- of Approach Work

STP-1872(400) WIN 018724.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 7-22-22
CHIEF ENGINEER: DATE 7-21-2022

STATE OF MAINE
ERIC A. CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

PROJECT INFORMATION		SIGNATURE	P.E. NUMBER	DATE
PROGRAM	BRIDGE			
PROJECT MANAGER	J. SIETSON		9099	MAY 2022
DESIGNER	P. BELL			
CONSULTANT	CALDERWOOD ENGINEERING			
PROJECT RESIDENT				
CONTRACTOR				
PROJECT COMPLETION DATE				

BATCHELDERS GRANT
EVANS BROOK BRIDGE

TITLE SHEET

SHEET NUMBER 1 OF 22

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

Filename:\Details\001_Title.dgn Division: BRIDGE Username: common Date:7/13/2022

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	Removing Existing Superstructure, Property of Contractor (60 CY)	1	LS
202.12	Removing Existing Structural Concrete	4	CY
202.202	Removing Pavement Surface	830	SY
203.20	Common Excavation	310	CY
203.21	Rock Excavation	10	CY
203.25	Granular Borrow	9	CY
206.082	Structural Earth Excavation - Major Structures, Plan Quantity	20	CY
304.10	Aggregate Subbase Course - Gravel	400	CY
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	76	TON
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base + Intermediate Base Course)	64	TON
409.15	Bituminous Tack Coat, Applied	30	G
502.21	Structural Concrete, Abutments and Retaining Walls	8	CY
502.248	Underwater Grout Bag	2	CY
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (56 CY)	1	LS
502.49	Structural Concrete Curbs and Sidewalks (15 CY)	1	LS
503.12	Reinforcing Steel, Fabricated and Delivered	17100	LB
503.13	Reinforcing Steel, Placing	17100	LB
504.70	Structural Steel Fabricated and Delivered (3600 LB)	1	LS
504.71	Structural Steel Erection (3600 LB)	1	LS
505.08	Shear Connectors (47.2 EA)	1	LS
507.0811	Steel Bridge Railing, 2-Bar (245 LF - 16,400 LB)	1	LS
507.0812	Steel Approach Railing, 2-Bar (2800 LB)	4	EA
515.21	Protective Coating for Concrete Surfaces (330 SY)	1	LS
518.50	Repair of Upward Facing Surfaces - to Reinforcing Steel < 8 Inches	5	SF
518.60	Repair of Vertical Surfaces < 8 Inches	35	SF
524.301	Temporary Structural Support	1	LS
526.301	Portable Concrete Barrier, Type 1 (40 LF)	1	LS
603.159	12 Inch Culvert Pipe Option III	30	LF
603.179	18 Inch Culvert Pipe Option III	35	LF
604.242	Catch Basin Type F3	1	EA
604.244	Catch Basin Type F4	1	EA
606.1301	31" W-Beam Guardrail - Mid-Way-Splice - Single Faced	100	LF
606.1722	Bridge Transition - Type II	4	EA
606.362	Guardrail, Adjust	75	LF
606.753	Widen Shoulder for Low Volume Guardrail End	2	EA
606.78	Low Volume Guardrail End	2	EA
606.80	Buried-in-Slope Guardrail End	1	EA
610.16	Heavy Riprap	105	CY
619.14	Erosion Control Mix	31	CY
618.149	Special Seeding	1	UN
620.58	Erosion Control Geotextile	80	SY
627.733	4" White or Yellow Painted Pavement Marking Line	830	LF
629.05	Hand Labor, Straight Time	50	HR
631.12	All Purpose Excavator (including operator)	25	HR
631.14	Grader (including operator)	25	HR
631.15	Roller, Earth and Base Course (including operator)	25	HR
631.172	Truck - Large (including operator)	25	HR
639.19	Field Office, Type B	1	EA
652.312	Type III Barricades	4	EA
652.33	Drum	10	EA
652.34	Cone	10	EA
652.35	Construction Signs	212	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.38	Flaggers	260	HR
656.75	Temporary Soil Erosion and Water Pollution Control	1	LS
659.10	Mobilization	1	LS
677.20	Mechanically Stabilized Earth Retaining Wall	88	SF

GENERAL CONSTRUCTION NOTES

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

2. 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.

3. Existing signs within the Project limits shall be removed and reset as directed by the Resident. Payment for removal and reinstallation of existing signs will be considered incidental to the Contract. No separate payment will be made.

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

5. 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.

6. 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 Pay Item 304.10, Aggregate Subbase Course - Gravel.

7. Place Erosion Control Mix 6 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

8. 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 5.25 feet. Payment will be considered incidental to the guardrail pay items.

9. A Low Volume Guardrail End shall be installed concurrently with the placement of each section of beam guardrail.

10. Where it is apparent that runoff will cause continual erosion, 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. Payment will be made under the appropriate Contract items.

11. 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,
Concrete barrier railing,
Top of abutment backwalls and wingwalls, and
To one foot below the ground on vertical walls against earth,
Concrete rail post corbels under deck overhang.

12. 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:

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 and Time.

13. All costs for cofferdams, including pumping, maintenance, related temporary soil erosion and water pollution controls, and removal, will not be paid for directly, but will be considered incidental to related Contract items.

14. 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 all materials included in the existing bridge. A demolition sequence shall be included in the Demolition Plan. As each concrete diaphragm is removed, a new diaphragm or temporary bracing must be installed prior to the removal of the next concrete diaphragm.No work related to the removal of the bridge shall be undertaken by the Contractor until MaineDOT 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.

15. 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.

16. The existing structural steel is assumed to be 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 rehabilitating the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Removal of lead-based paint shall be in accordance with all applicable Federal, State and local requirements. The Contractor shall submit a lead-based paint removal plan to the resident for approval prior to the start of work. Payment for labor, materials, and equipment and other costs required to remove and dispose of lead waste will be considered incidental to related Contract items.

17. Pay Item 203.21, Rock Excavation is intended be used for payment associated with removal of rock encountered during installation of the retaining walls, catch basins and for any other rock encountered during approach reconstruction.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

	J. STETSON		
PROJ. MANAGER			
DESIGN-DETAILED	PAB	JJM/DLM	MAR 2022
CHECKED-REVIEWED	ETC	ETC	MAR 2022
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BATCHELDERS GRANT
EVANS BROOK BRIDGE

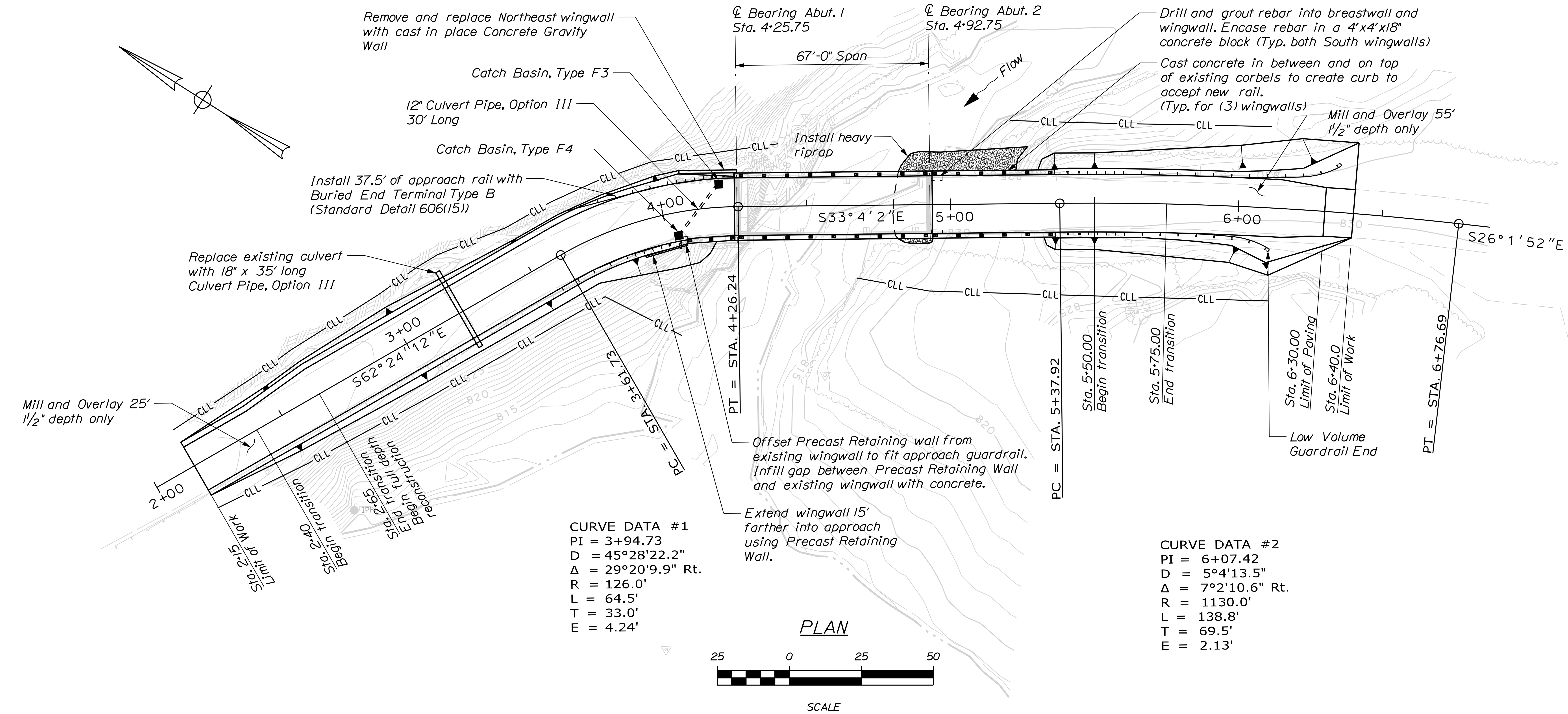
ESTIMATED QUANTITIES

SHEET NUMBER

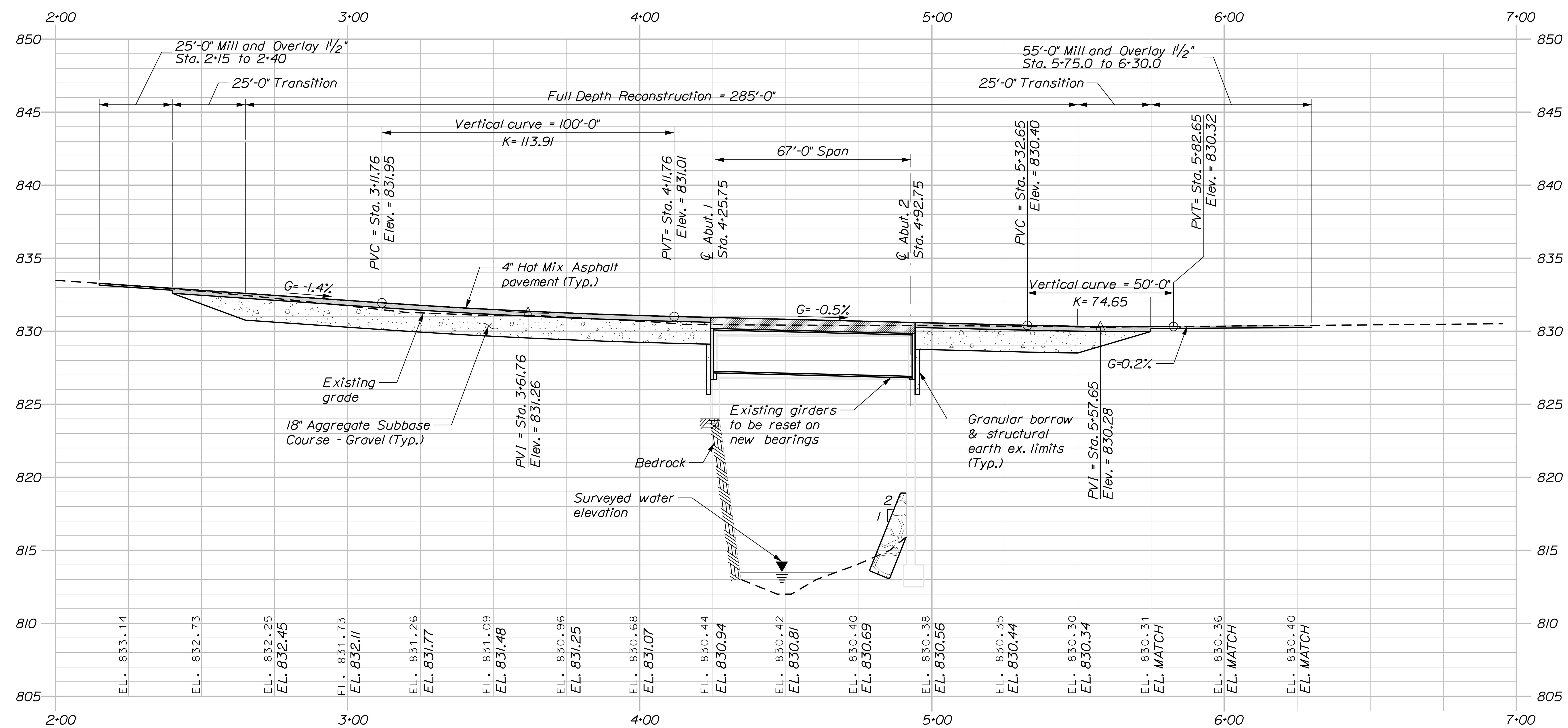
2

OF 22

CALDERWOOD ENGINEERING
22 RIVER ROAD
RICHMOND, ME 04357
PH. (207)737-2007 FAX (207)737-2008



PLAN



PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE ERIC CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE MAY 2022

		BY	DATE
PROJ. MANAGER	J. STETSON		
DESIGN-DETAILED	PAB	JJH/DLM	MAR 2022
CHECKED-REVIEWED	ETC	ETC	MAR 2022
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

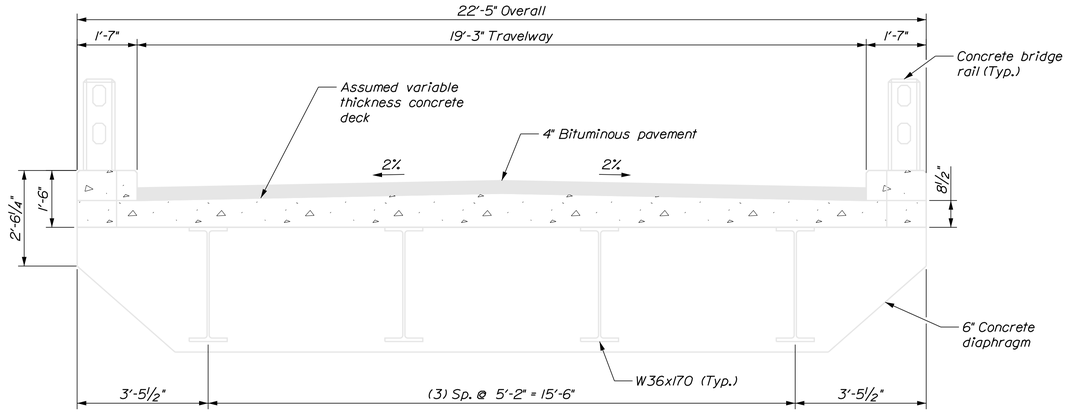
BATCHELDERS GRANT EVANS BROOK BRIDGE

GENERAL PLAN & PROFILE

SHEET NUMBER

3

OF 22



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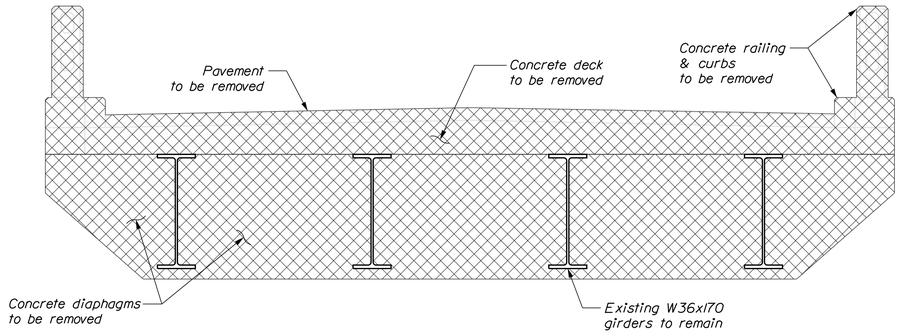


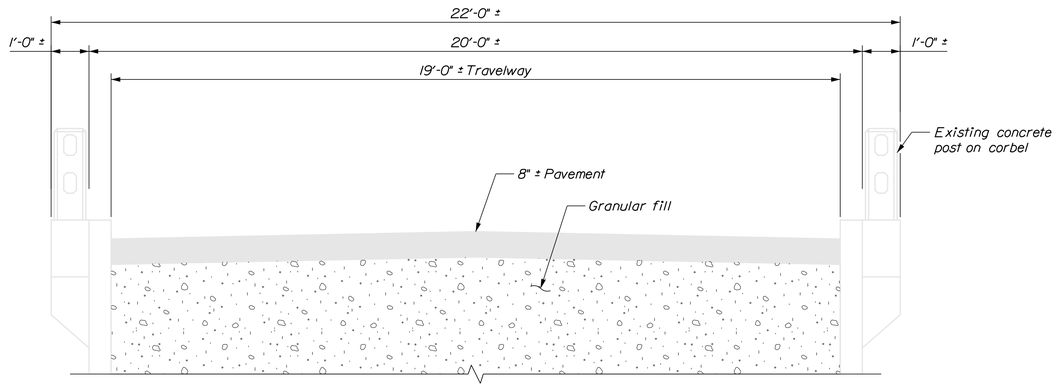
DEMOLITION SECTION

▨ = Items to be paid for under Pay Item 202.10

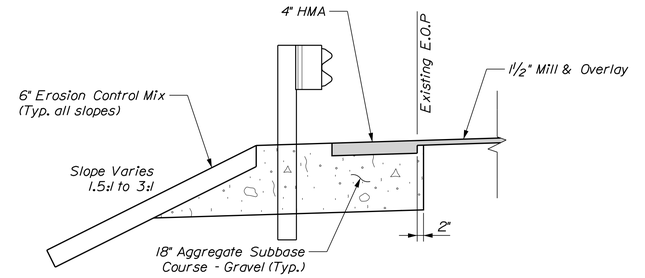
Demolition Notes:

1. In addition to the items shown in the Demolition Section, the backwalls at both Abutments are to be paid for under Pay Item 202.10. See sheet 8 for clarification.

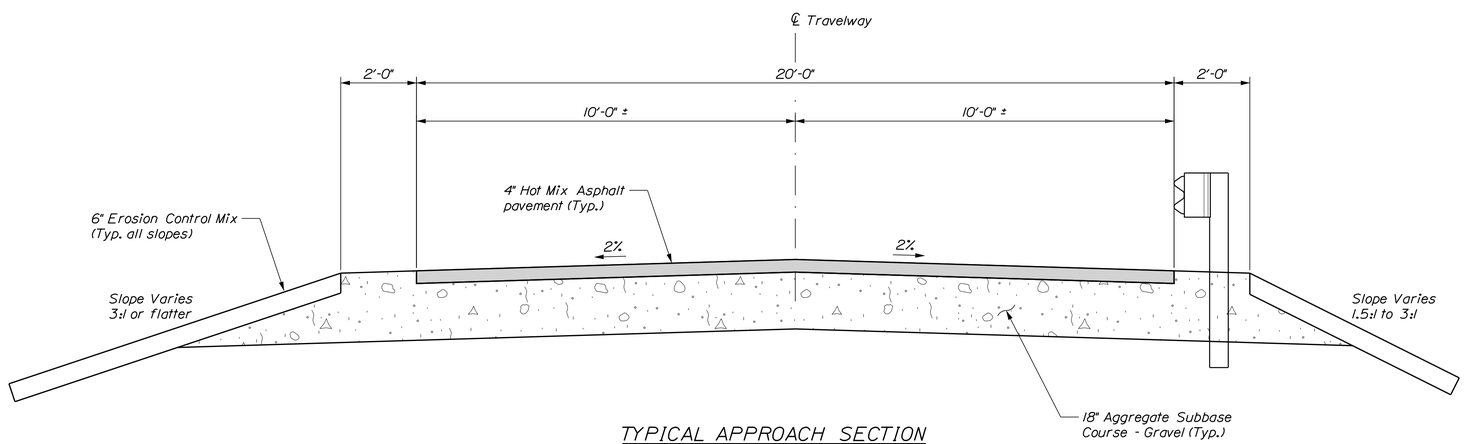
2. Removal of the existing concrete posts and rails on top of the wingwalls shall be considered incidental to Pay Item 202.12.



EXISTING WINGWALL SECTION



MILL & OVERLAY PARTIAL SECTION



TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN 018724.00

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE MAY 2022

	BY	DATE
J. STETSON		
PROJ. MANAGER	PAB	MAR 2022
DESIGN-DETAILED	JJH/DLM	MAR 2022
CHECKED-REVIEWED	ETC	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

TYPICAL SECTIONS

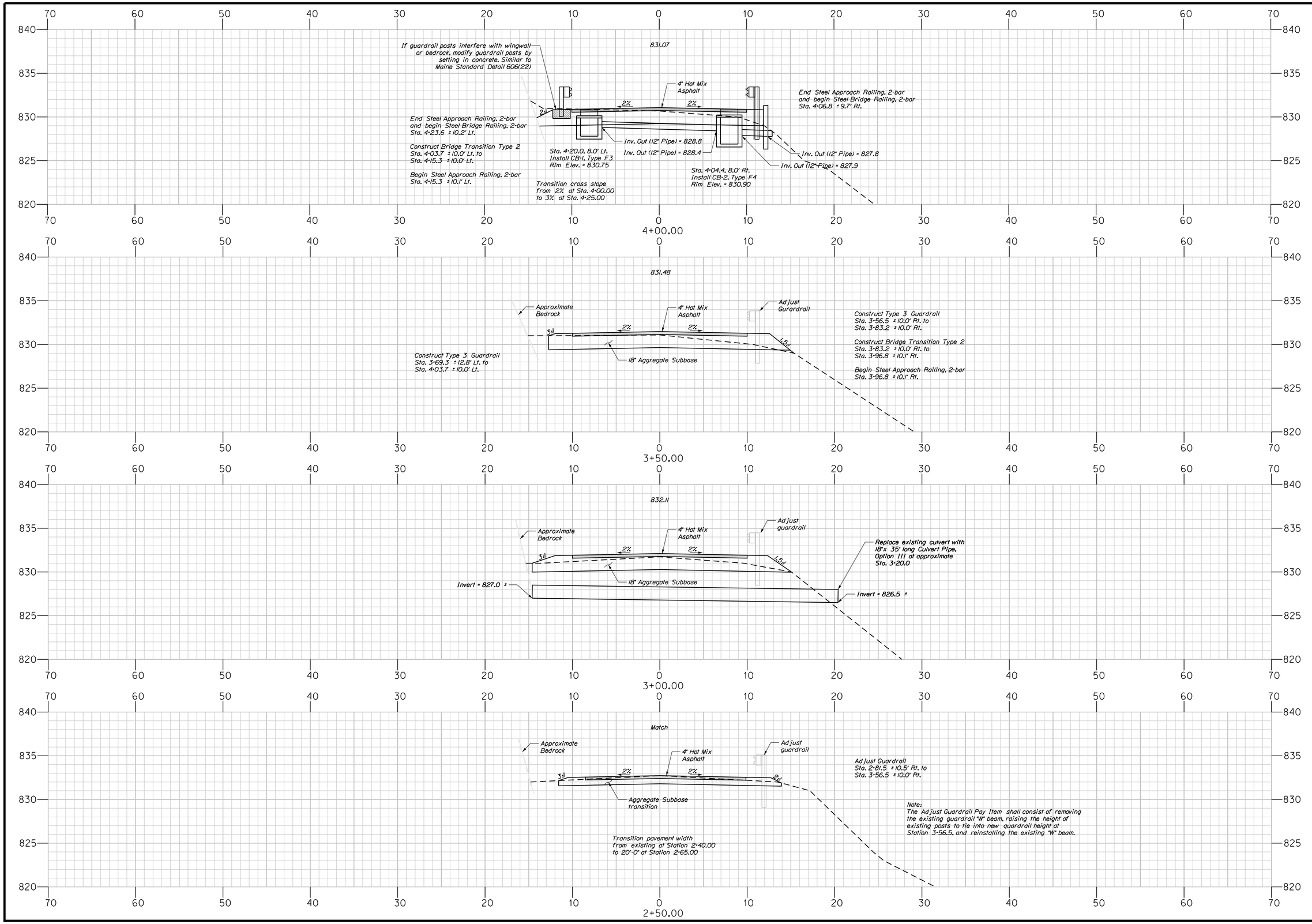
SHEET NUMBER

4

OF 22

CALDERWOOD ENGINEERING
P.O. BOX 164
RICHMOND, ME 04357
TEL (207) 737-2001 FAX (207) 737-2008

Filename: ...\004_Typical Sections.dgn Division: HIGHWAY Username: common Date:7/13/2022



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

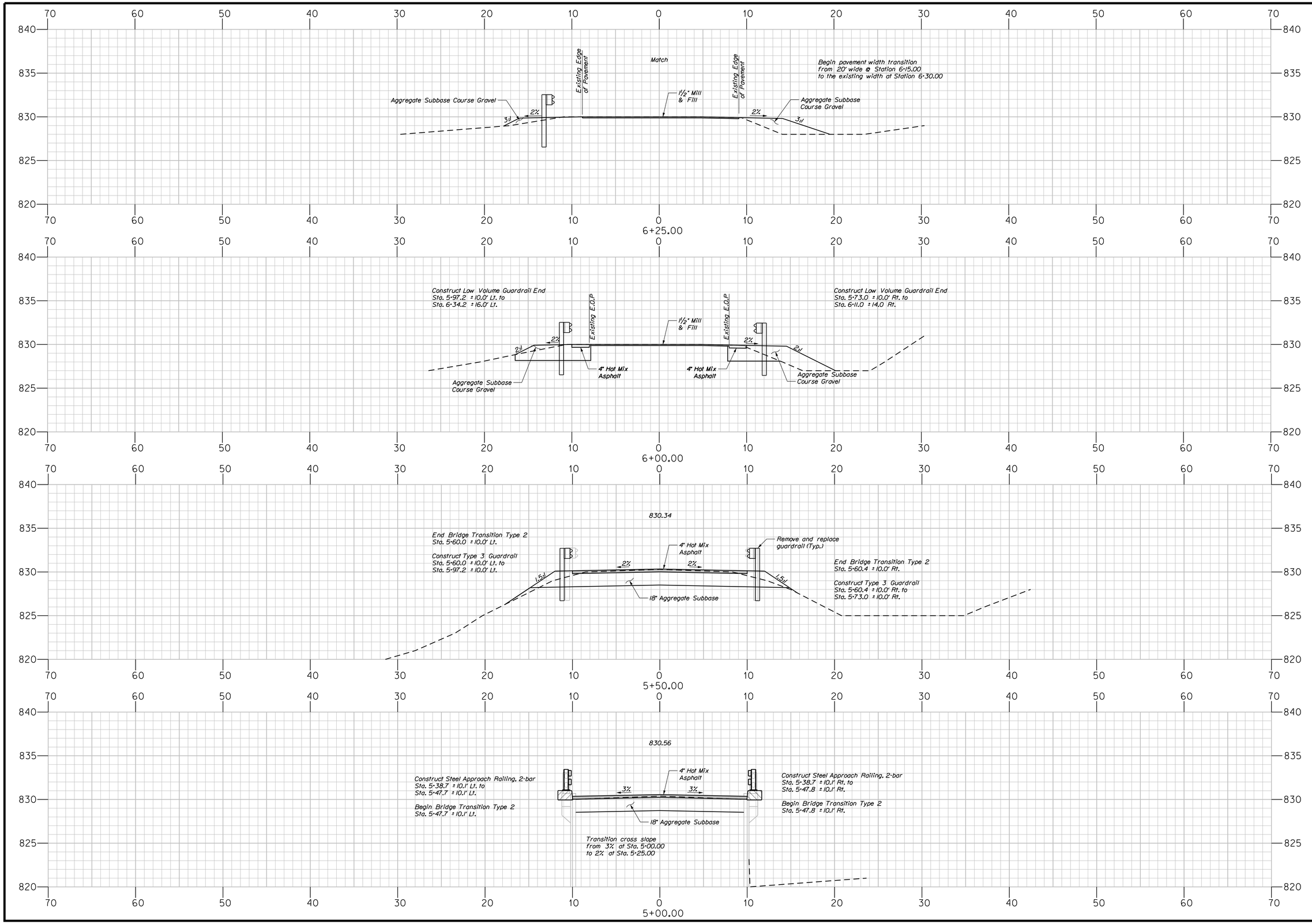
DATE
MAY 2022

PROJ. MANAGER	J. STETSON	
DESIGN-DETAILED	PAB	MAR 2022
CHECKED-REVIEWED	ETC	MAR 2022
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	JAM/DLM	MAR 2022
REVISIONS 2	ETC	MAR 2022
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

CROSS SECTIONS 4+00.00 2+50.00

SHEET NUMBER
5
OF 22



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC
CALDERWOOD
No. 9099
PROFESSIONAL ENGINEER
LICENSED

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

J. STETSON	DATE	
PROJ. MANAGER	BY	
DESIGN-DETAILED	PAB	MAR 2022
CHECKED-REVIEWED	ETC	MAR 2022
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

5+00.00 CROSS SECTIONS 6+08.27

SHEET NUMBER

6

OF 22

NORTH ABUTMENT ELEVATION

SOUTH ABUTMENT ELEVATION

REPAIR OF VERTICAL SURFACES

Designation	Location	Area (SF)
R1	North Abutment, Footing	4
R2	North Abutment, Breastwall	5
R3	North Abutment, NW Wing	3
R4	South Abutment, Breastwall	5
R5	South Abutment, Breastwall	3
R6	South Abutment, SW Wing	8

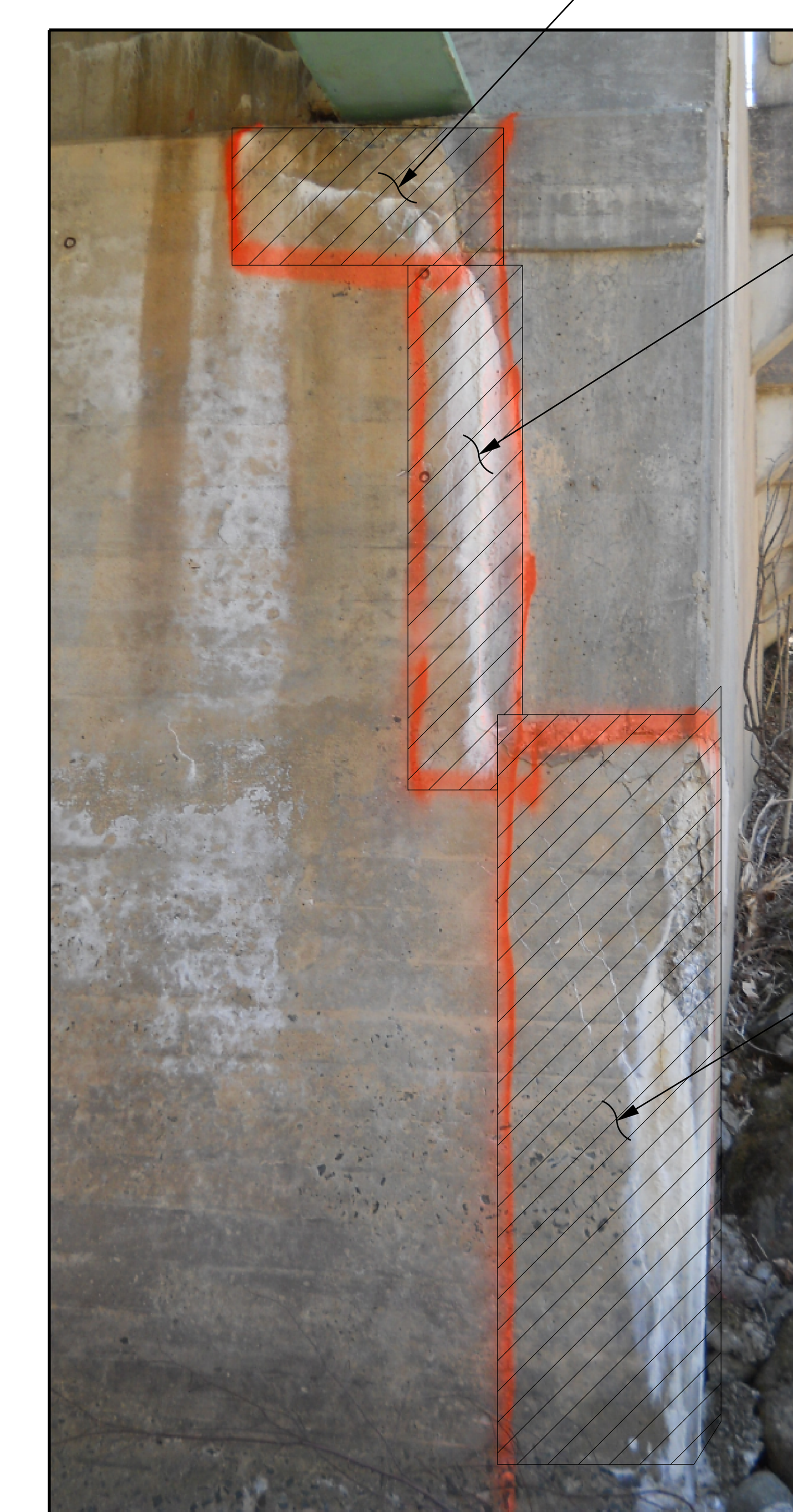
MISCELLANEOUS REPAIRS

Designation	Location	Description
R7	North Abutment, Footing	Grout Bag

Notes:
1. All repairs of Vertical surfaces shall be done in accordance with Section 518 of the Maine Standard Specifications.

2. Approximate size and location of repairs are shown. Abutments shall be jointly inspected by the Contractor and Resident to determine full extent of repairs needed.

NORTH ABUTMENT CORNER DETAIL



SOUTH ABUTMENT CORNER DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-1872(400)
WIN 018724.00

STATE OF MAINE ERIC CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER 9099
DATE MAY 2022

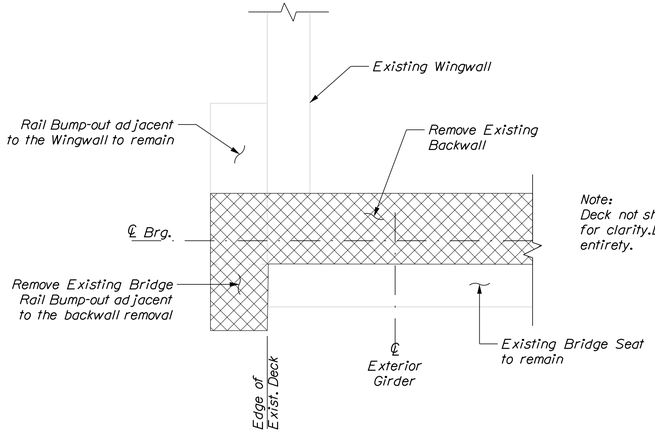
		BY	DATE
PROJ. MANAGER	J. STETSON		
DESIGN-DETAILED	PAB	JJH/DLM	MAY 2021
CHECKED-REVIEWED	ETC	ETC	MAY 2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BATCHELDERS GRANT
EVANS BROOK BRIDGE
ABUTMENT REHABILITATION
DETAILS 1 of 2

SHEET NUMBER
7
OF 22

CALDERWOOD ENGINEERING 222 RIVER ROAD RICHMOND, ME 04357

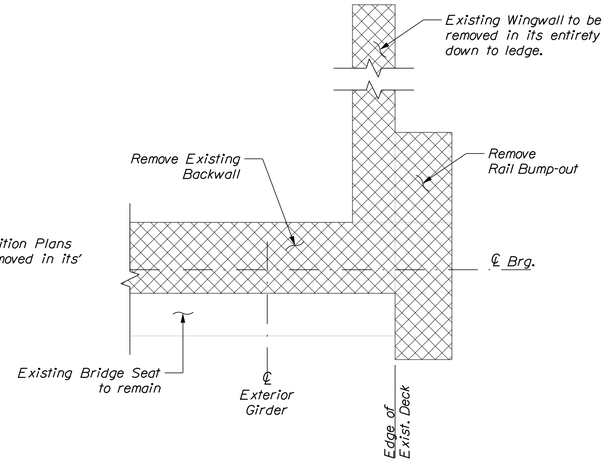
Filename: ...\007_Abutment_Details.dgn Division: HIGHWAY Username: common Date: 7/13/2022



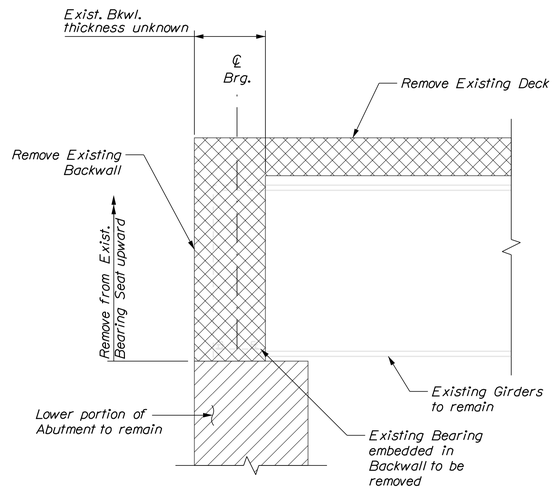
Note:
Deck not shown in Demolition Plans for clarity.Deck to be removed in its' entirety.

DEMOLITION PLAN

Note: This demolition plan refers to the NW. SW. & SE corners of the Bridge.

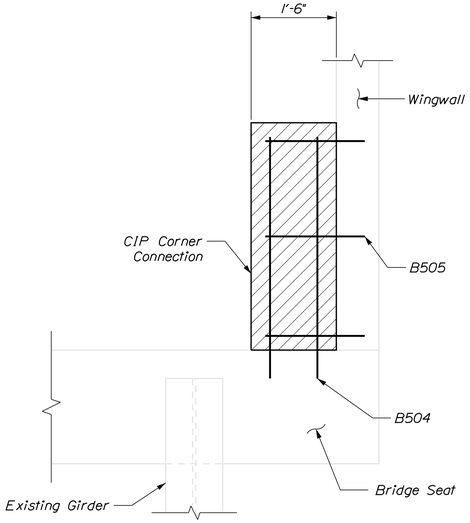


DEMOLITION PLAN ~ NORTHEAST CORNER

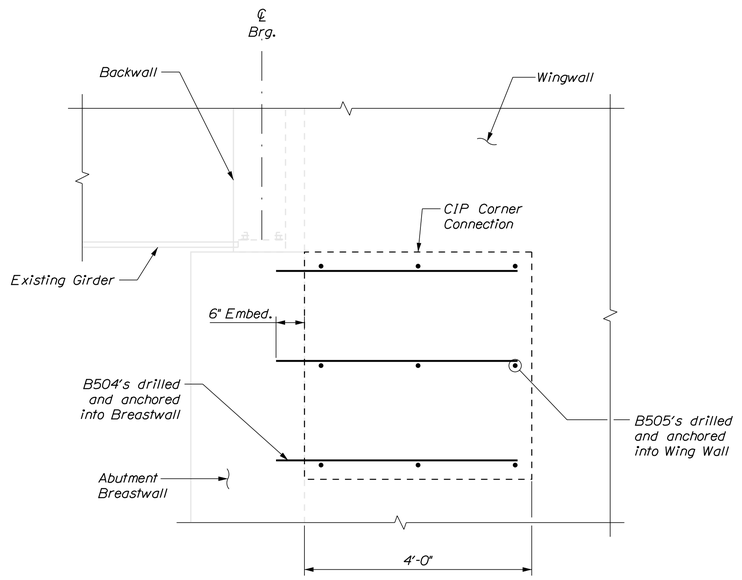


DEMOLITION SECTION

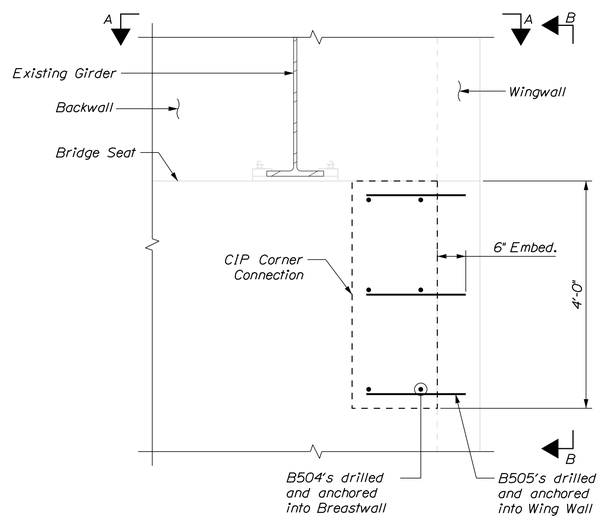
Note: This demolition section is typical of both Abutments



PLAN VIEW A-A



ELEVATION VIEW B-B



ABUTMENT 2 WINGWALL CONNECTION

Typical both corners

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN 018724.00

STATE OF MAINE ERIC CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099

SIGNATURE

DATE MAY 2022

PROJ. MANAGER	J. STETSON
DESIGN-DETAILED	PAB
CHECKED-REVIEWED	ETC
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

NO.	REVISIONS	BY	DATE
1		JJH/DLM	MAY 2021
2		ETC	MAY 2021
3			
4			
	FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

ABUTMENT REHABILITATION
DETAILS 2 of 2

SHEET NUMBER

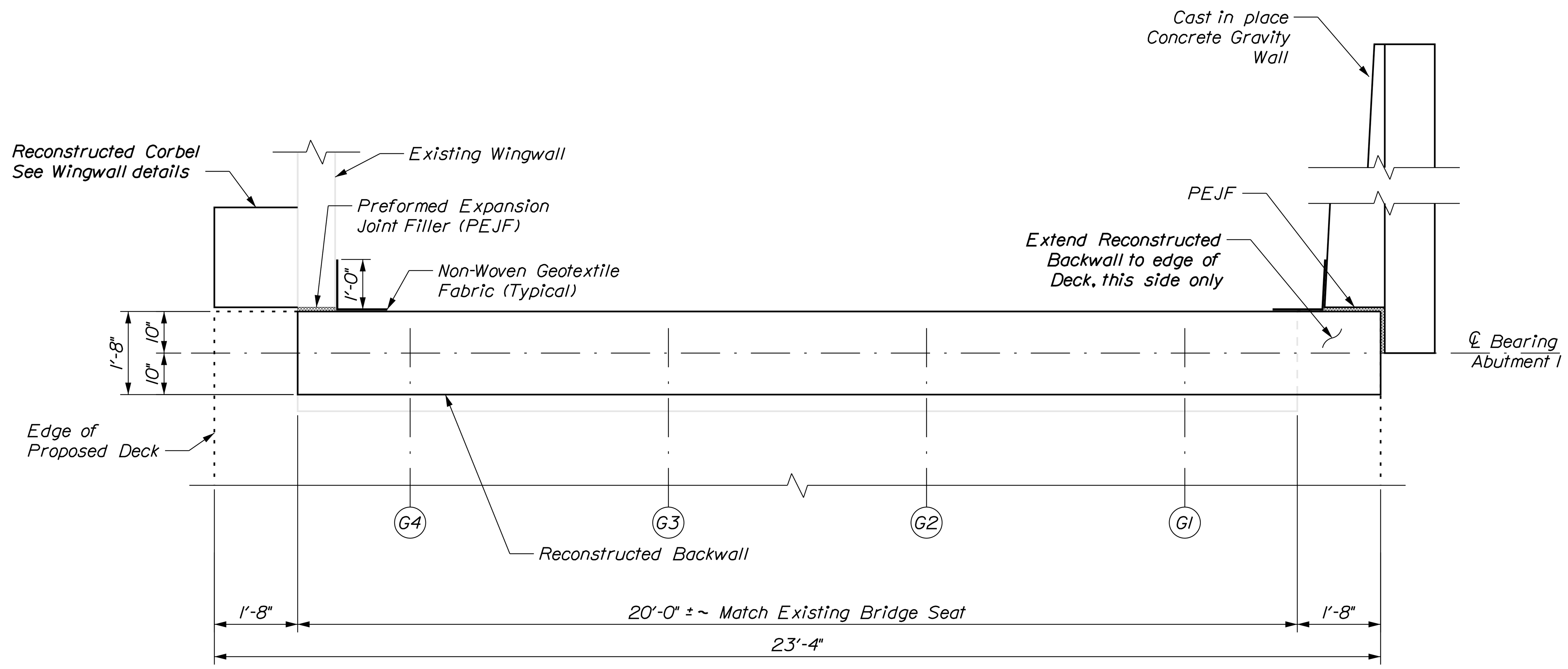
8

OF 22

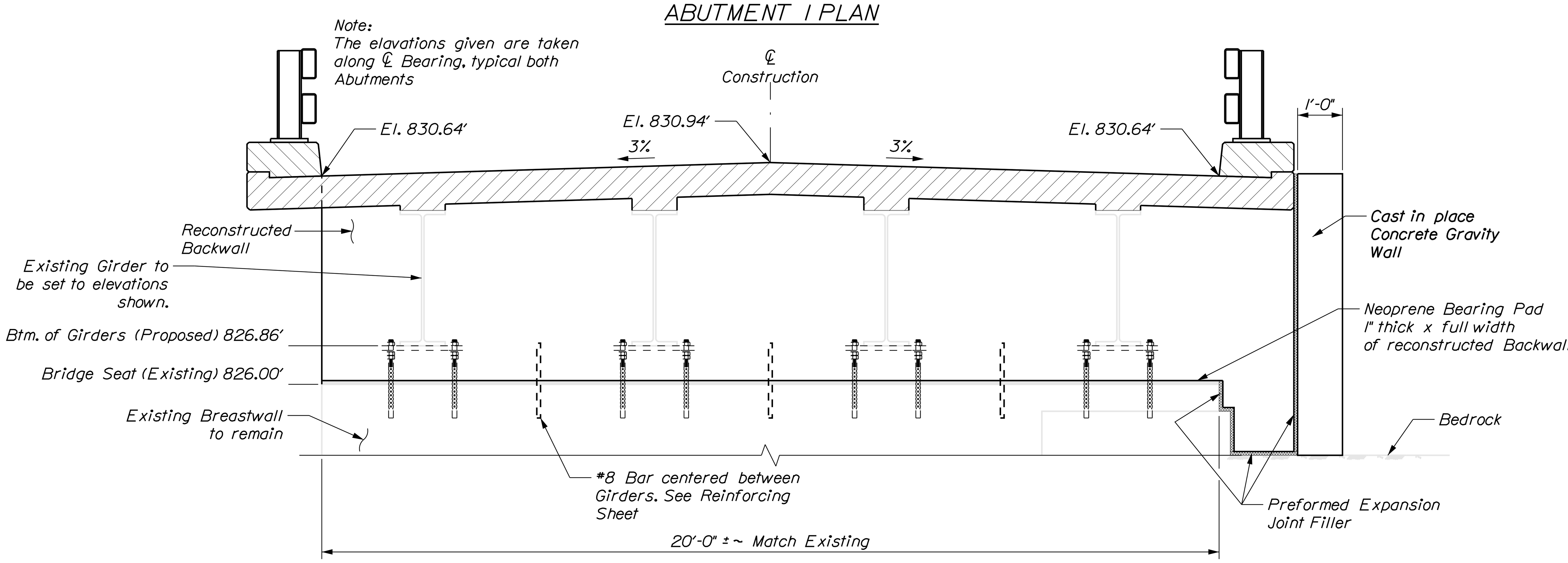
CALDERWOOD ENGINEERING
222 RIVER ROAD
W. RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

Filename: ...\008_Abutment_Details.dgn Division: HIGHWAY Username: common Date:7/13/2022

Filename: ...\009_Abutment1_Details.dgn   Division: HIGHWAY   Username: common   Date: 7/13/2022



ABUTMENT 1 PLAN



ABUTMENT 1 ELEVATION

ABUTMENT NOTES

1. Reinforcing steel shall have a minimum concrete cover of 3 inches.

2. All Abutment reinforcing shall be ASTM A615, Grade 60, plain.

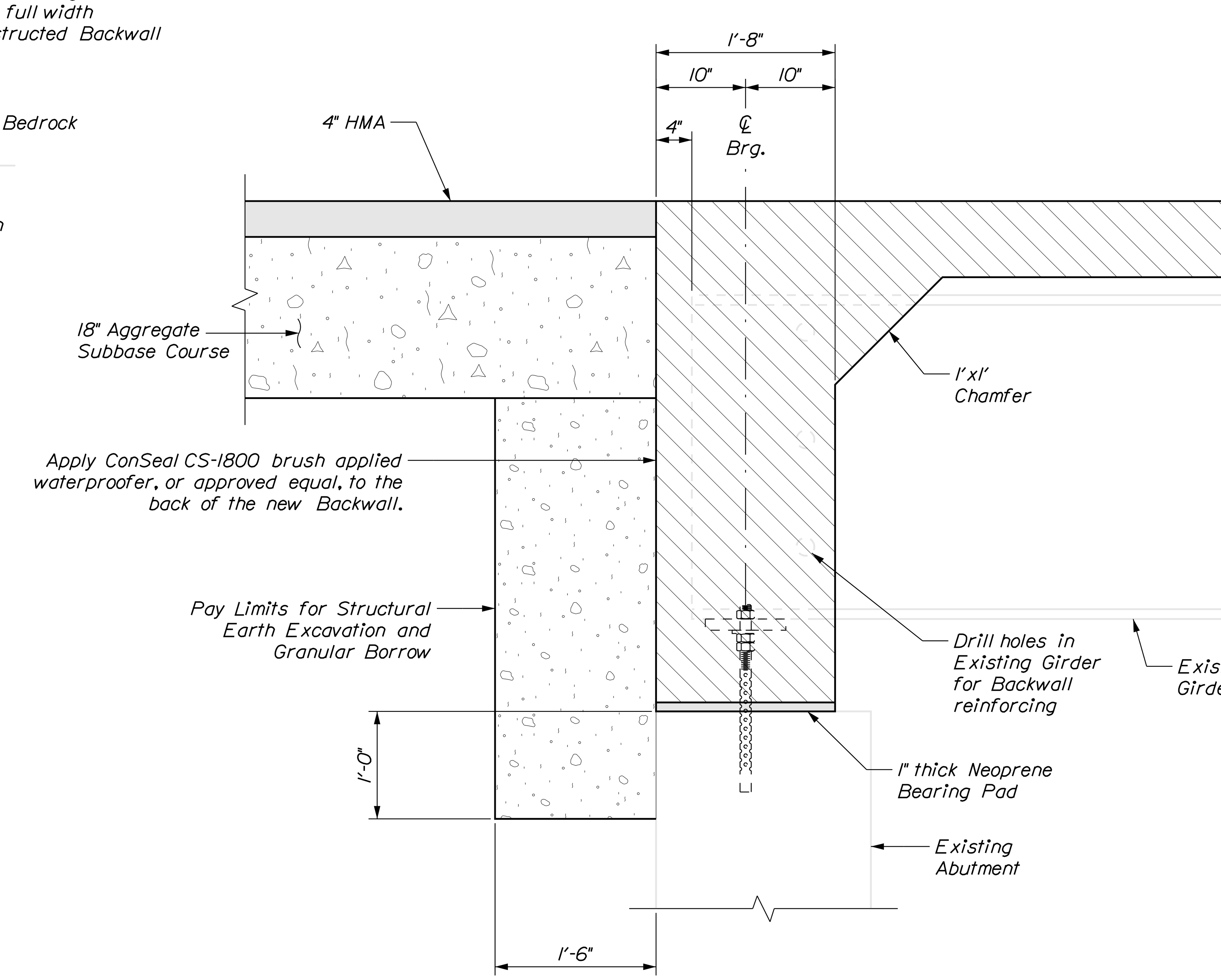
3. Reconstructed Backwalls shall be back filled with Granular Borrow, unless noted otherwise.

4. Neoprene pads shall be either polychloroprene or natural polyisoprene of 50± 5 Shore A durometer hardness, and shall conform to the requirements of Division 2, Section 18.2 of AASHTO Standard Specifications for Highway Bridges. The pads will have shear modulus of 95-130 psi. Neoprene pads will not be paid for directly but will be considered incidental to related contract items. No separate payment will be made.

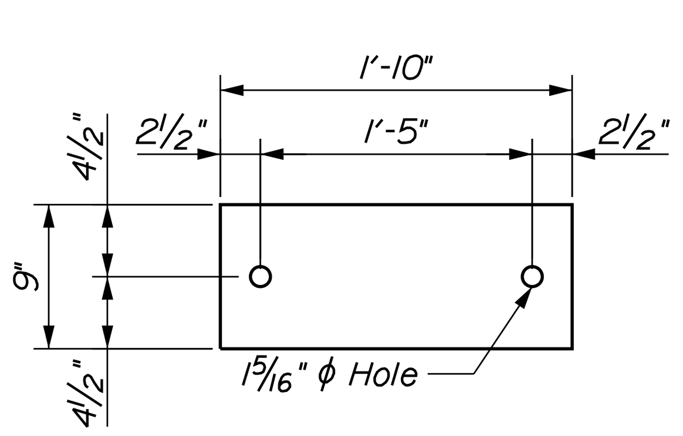
5. For drilling and anchoring the anchor rods & #8 Pins, the anchoring material shall be chosen from the MaineDOT prequalified list and shall be submitted to the Resident for approval.

6. Existing concrete at abutments to be removed as shown on the plans, unless otherwise noted, shall be sawcut one-inch deep prior to removing existing concrete. All costs associated with the work shall be considered incidental to related Contract items.

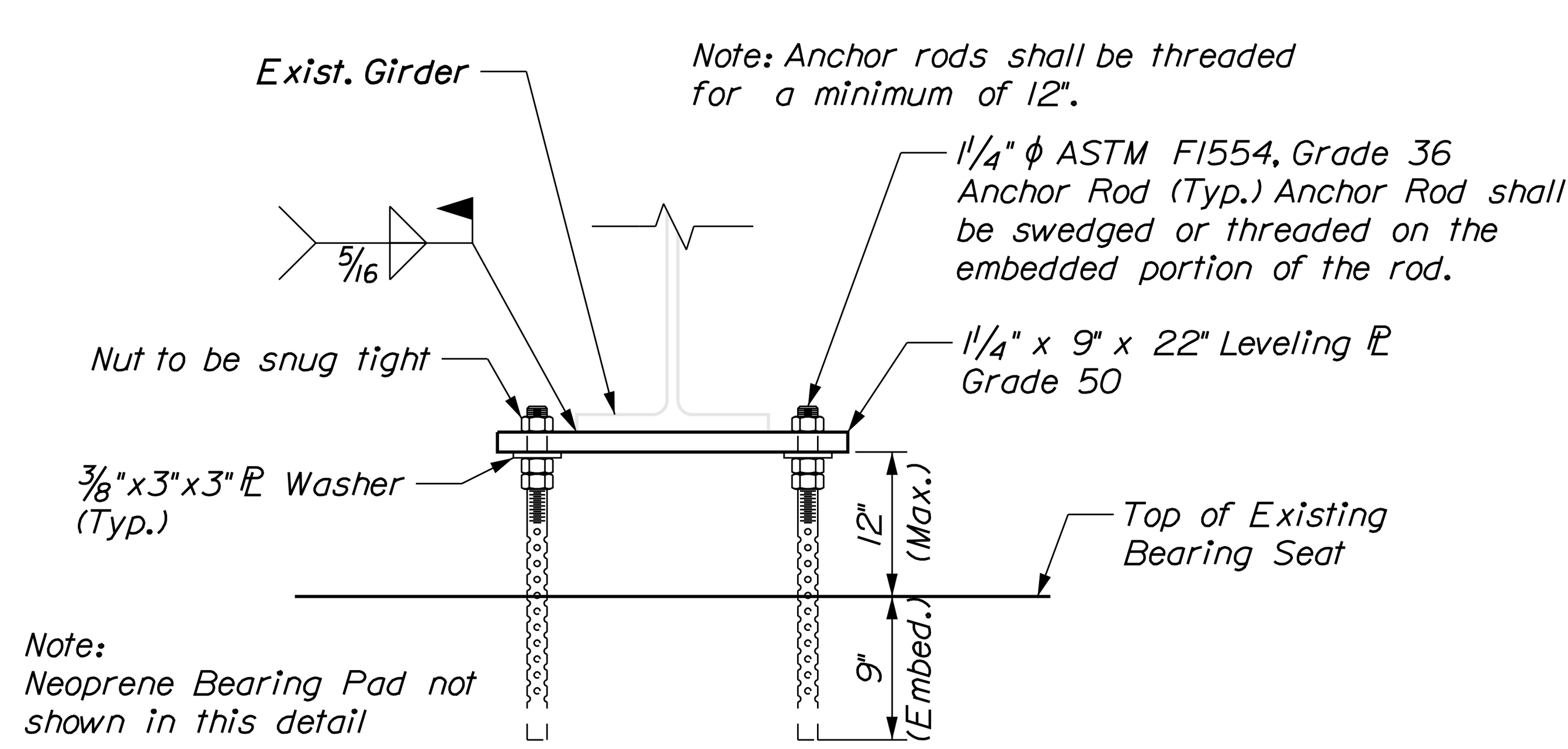
7. The Sika EMSEAL Bridge Expansion Joint System shall be considered incidental to related Contract items.



ABUTMENT 1 SECTION



LEVELING PLATE
1" = 1'-0"



ABUTMENT 1
GIRDER SUPPORT DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

	BY	DATE
PROJ. MANAGER	J. STETSON	
DESIGN-DETAILED	PAB	JJH/DLM MAY 2021
CHECKED-REVIEWED	ETC	ETC MAY 2021
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

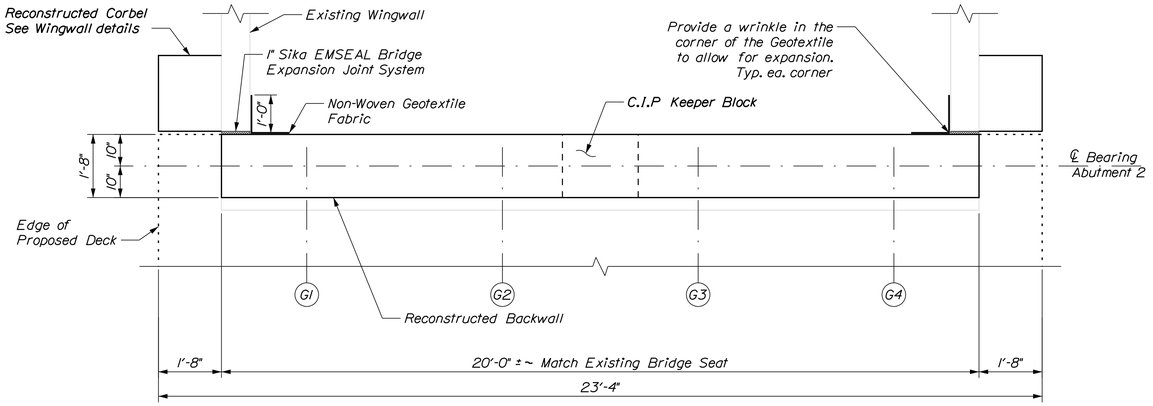
BATCHELDERS GRANT
EVANS BROOK BRIDGE

ABUTMENT 1 DETAILS

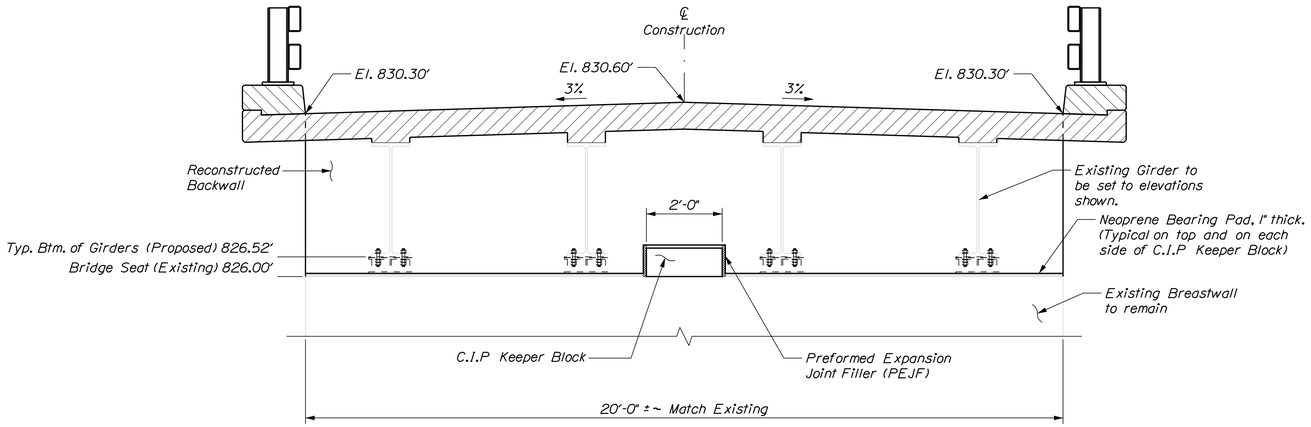
SHEET NUMBER

9

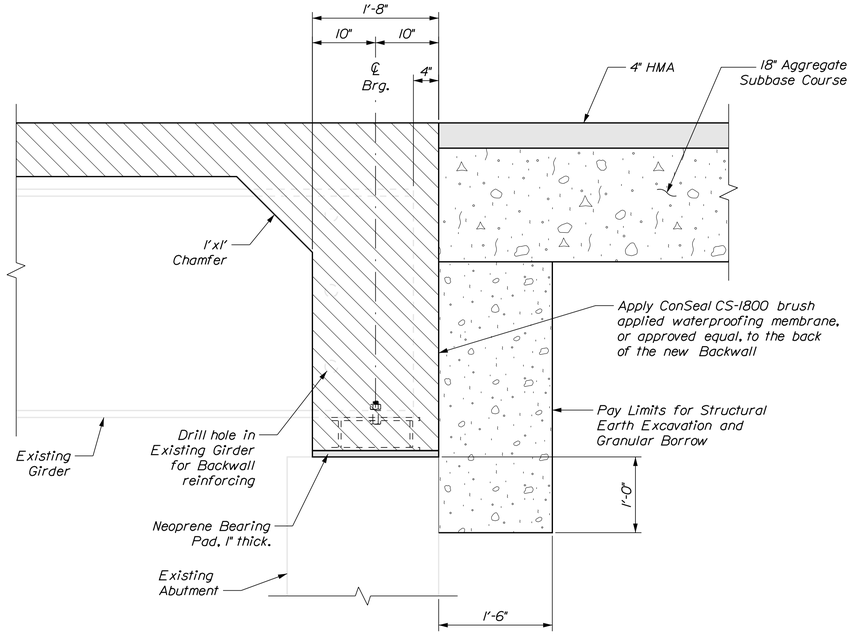
OF 22



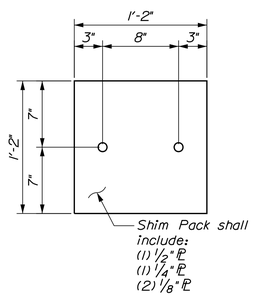
ABUTMENT 2 PLAN



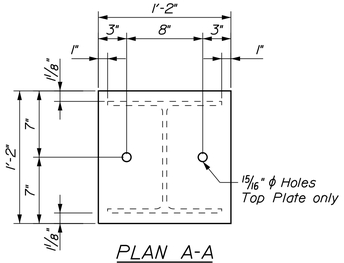
ABUTMENT 2 ELEVATION



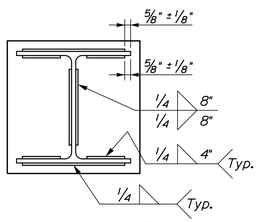
ABUTMENT 2 SECTION



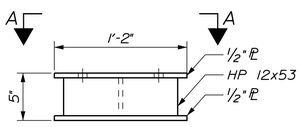
SHIM PACK



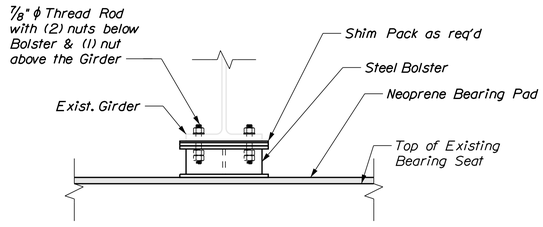
PLAN A-A



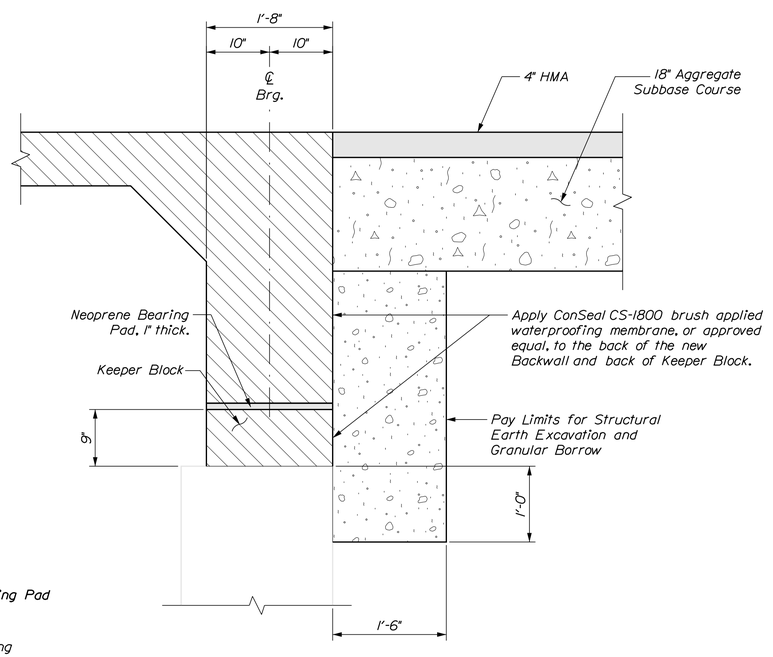
BOLSTER WELD



BOLSTER DETAIL



ABUTMENT 2
GIRDER BOLSTER DETAIL



SECTION @ KEEPER BLOCK

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

	J. STETSON	PAB	ETC				
PROJ. MANAGER							
DESIGN-DETAILED	PAB	JAH/DLM	ETC				
CHECKED-REVIEWED	ETC						
DESIGN2-DETAILED2							
DESIGN3-DETAILED3							
REVISIONS 1							
REVISIONS 2							
REVISIONS 3							
REVISIONS 4							
FIELD CHANGES	DATE	MAY 2021	MAY 2021				

BATCHELDERS GRANT
EVANS BROOK BRIDGE

ABUTMENT 2 DETAILS

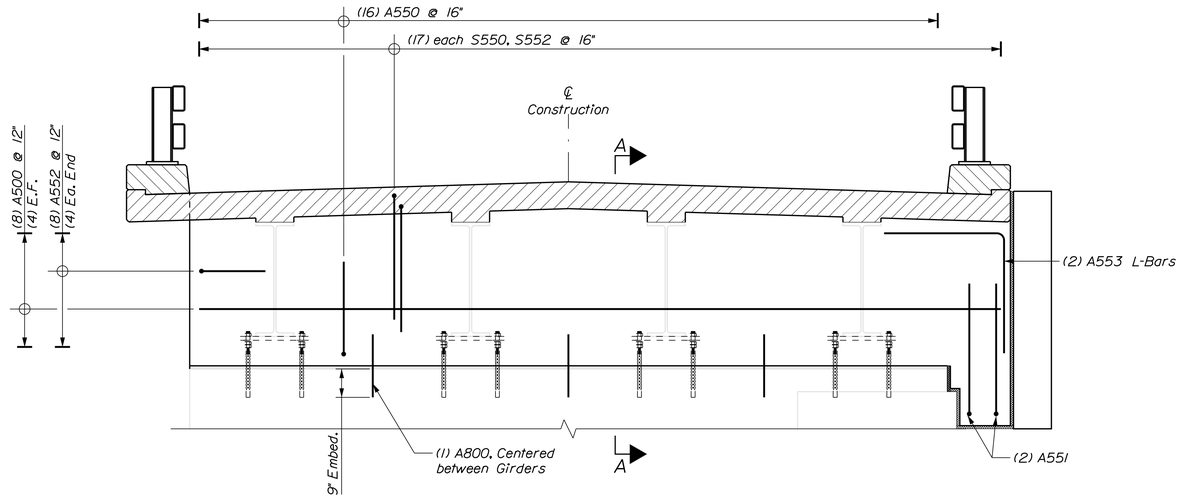
SHEET NUMBER

10

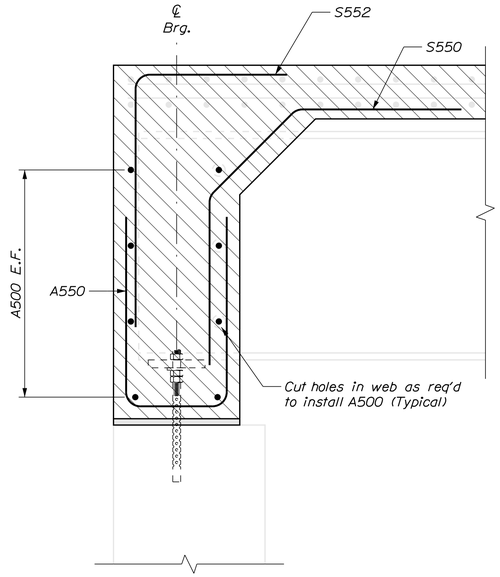
OF 22

CALDERWOOD ENGINEERING
22 RIVER ROAD
RICHMOND, ME 04357
PH. (207)737-2097 FAX (207)737-2003

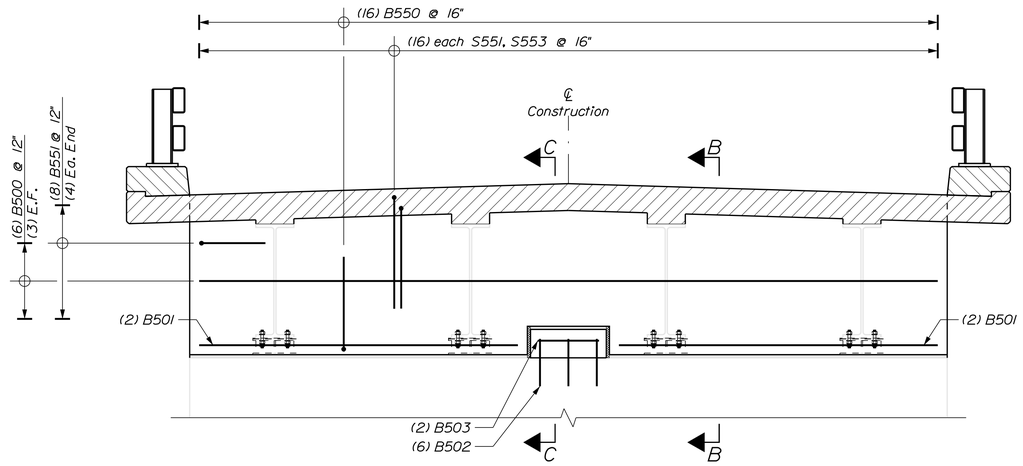
Date:7/13/2022
Username: common
Division: HIGHWAY
Filename: ...\010_Abutment2_Details.dgn



ABUTMENT 1 REINFORCING ELEVATION



ABUTMENT 1 REINFORCING, SECTION A-A



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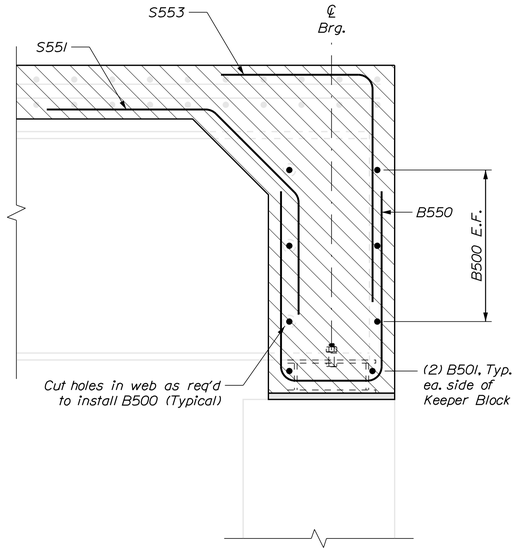
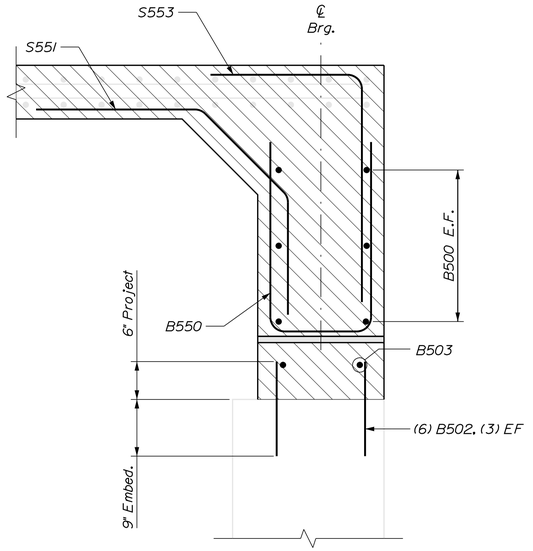


ABUTMENT 2 REINFORCING, SECTION B-B



KEEPER BLOCK REINFORCING, SECTION C-C

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER
9099

SIGNATURE

DATE
MAY 2022

PROJ. MANAGER	J. STETSON		
DESIGN-DETAILED	PAB	JJH/DLM	MAY 2021
CHECKED-REVIEWED	ETC	ETC	MAY 2021
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BATCHELDERS GRANT
EVANS BROOK BRIDGE

ABUTMENT REINFORCING

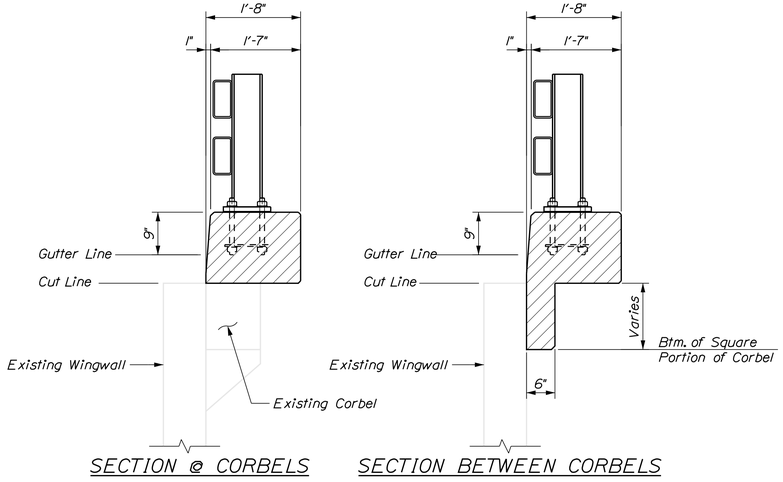
SHEET NUMBER

11

OF 22

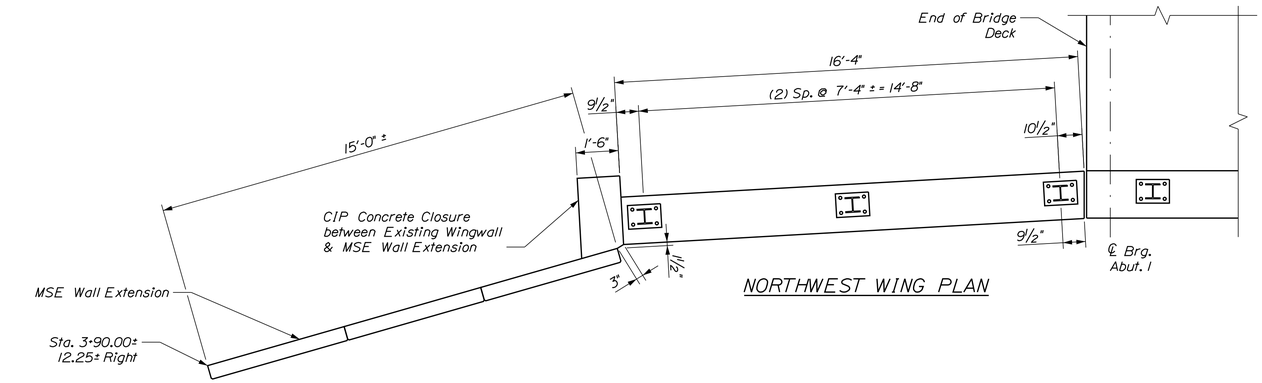
CALDERWOOD ENGINEERING
82 RIVER ROAD
RICHMOND, ME 04357
PH (207) 737-2987 FAX (207) 737-2988

Filename: ...\011_TypAbutment_Reinforcing.dgn Division: HIGHWAY Username: common Date:7/13/2022

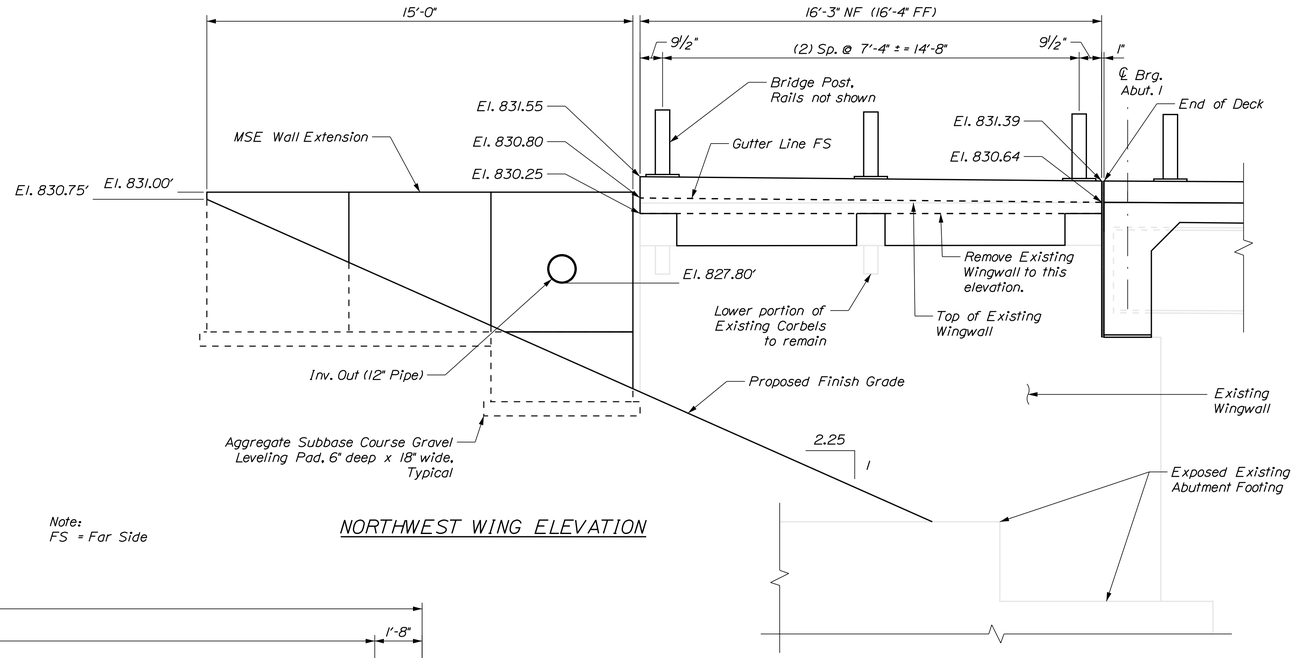


SECTION @ CORBELS

SECTION BETWEEN CORBELS

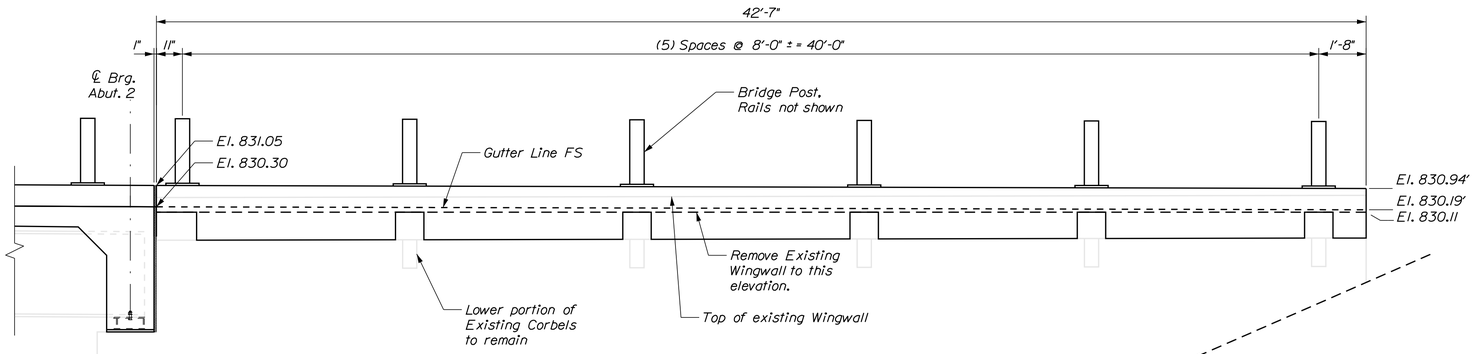


NORTHWEST WING PLAN



NORTHWEST WING ELEVATION

Note:
FS = Far Side



SOUTHWEST WING ELEVATION

NOTE:
Southwest Wingwall shown, Southeast Wingwall similar. Lengths, end elevations, cut elevations, and reinforcing are the same.

WINGWALL NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches.

2. All Wingwall reinforcing shall be ASTM A615, Grade 60, plain.

3. For drilling and anchoring the reinforcement into the existing abutments, the anchoring material shall be chosen from the MaineDOT prequalified list and shall be submitted to the Resident for approval.

4. Existing concrete at wingwalls to be removed as shown on the plans, unless otherwise noted, shall be sawcut one-inch deep prior to removing existing concrete. All costs associated with the work shall be considered incidental to related Contract items.

5. Removal of wingwall concrete from the cut line upwards, including the concrete railing and posts, shall be paid for under Pay Item 202.12, typical @ NW, SW, & SE wingwalls. Removal of the existing concrete posts and rails on top of the wingwalls shall be considered incidental to Pay Item 202.12

6. Removal of Northeast Wingwall shall be paid for under Pay Item 202.12

MSE WALL NOTES

1. The MSE Wall should be designed based on an internal friction angle of 32 degrees and a soil weight of 125 pcf.

2. The gravel leveling pads below the MSE walls shall be considered incidental to Pay Item 677.20

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 9099
SIGNATURE
DATE MAY 2022

	DATE
DESIGN-DETAILED	MAY 2021
CHECKED-REVIEWED	MAY 2021
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

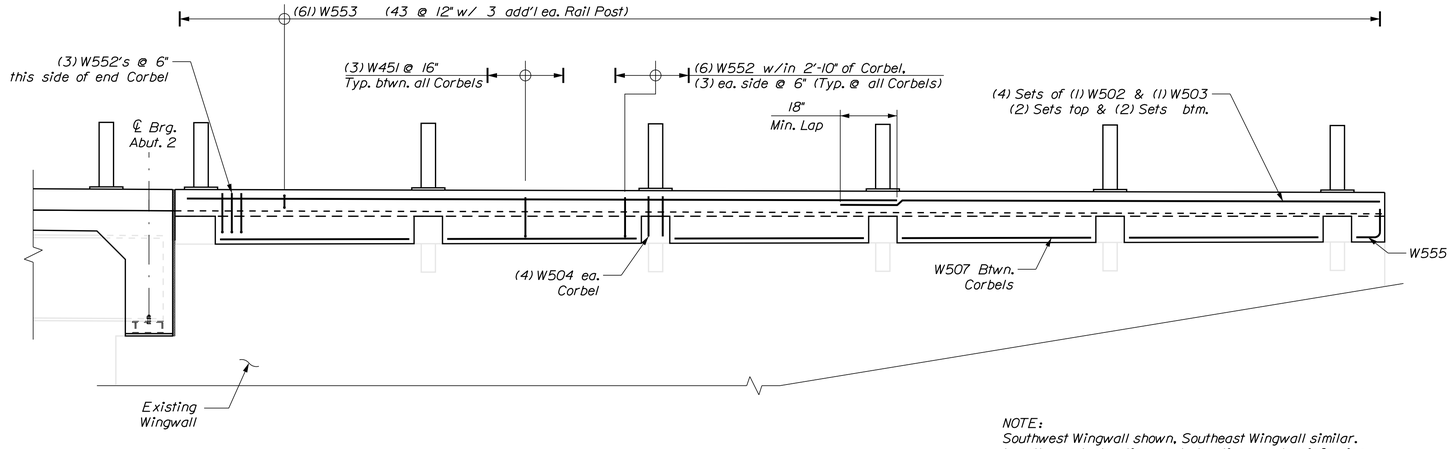
	BY
PROJ. MANAGER	J. STETSON
DESIGN-DETAILED	PAB
CHECKED-REVIEWED	JMH/DLM
DESIGN2-DETAILED2	ETC
DESIGN3-DETAILED3	ETC
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

BATCHELDERS GRANT
EVANS BROOK BRIDGE

WINGWALL DIMENSIONAL DETAILS

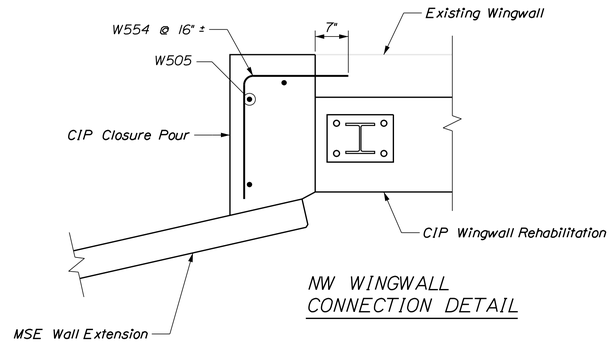
SHEET NUMBER
12
OF 22

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

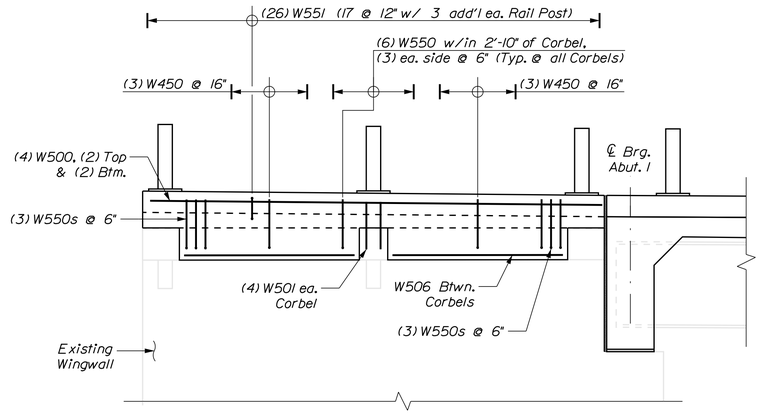


SOUTHWEST WING REINFORCING

NOTE:
Southwest Wingwall shown, Southeast Wingwall similar. Lengths, end elevations, cut elevations, and reinforcing are the same.

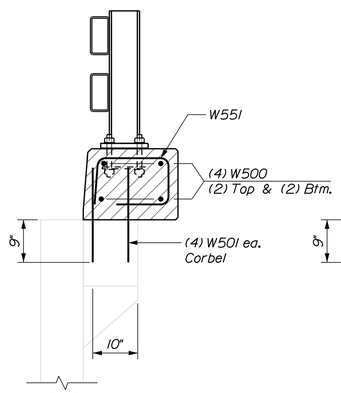


NW WINGWALL CONNECTION DETAIL

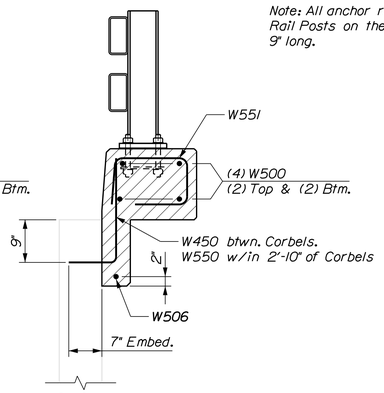


NORTHWEST WING REINFORCING

NOTE:
MSE Wall Extension not shown in this elevation.

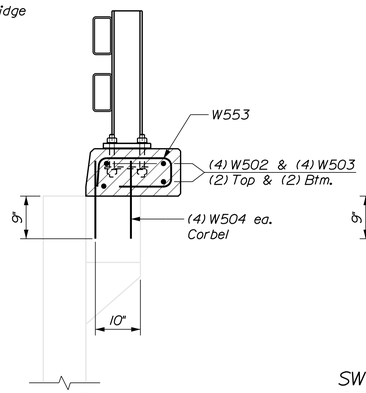


NW WINGWALL SECTION @ CORBELS

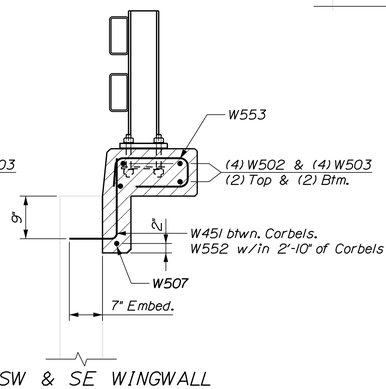


NW WINGWALL SECTION BETWEEN CORBELS

Note: All anchor rods for Steel Bridge Rail Posts on the Wings shall be 9" long.



SW & SE WINGWALL SECTION @ CORBELS



SW & SE WINGWALL SECTION BETWEEN CORBELS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN 018724.00

ERIC CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE

SIGNATURE

P.E. NUMBER 9099

DATE MAY 2022

	DATE	BY
J. STETSON	MAY 2021	JMH/DLM
PAB		ETC
PROJ. MANAGER		
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

WINGWALL REINFORCEMENT DETAILS

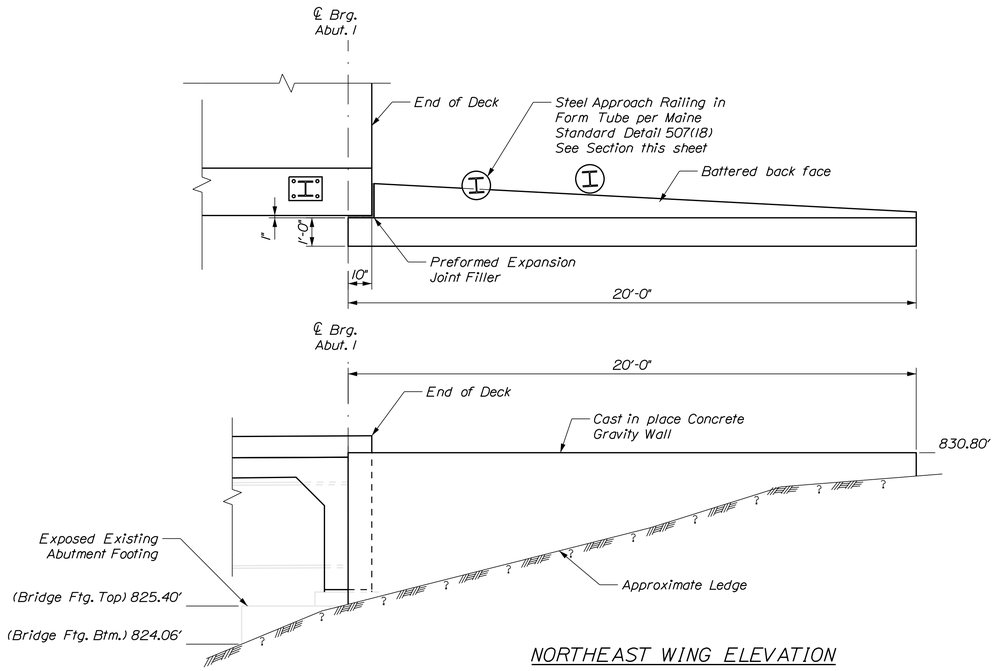
SHEET NUMBER

13

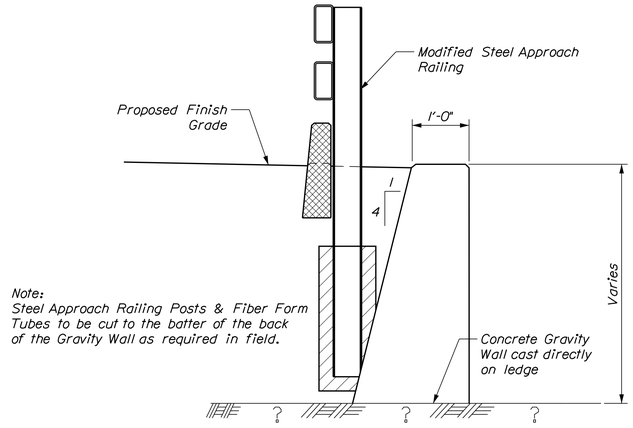
OF 22

CALDERWOOD ENGINEERING
22 RIVER ROAD
RICHMOND, MAINE 04357
PH. (207) 737-8001 FAX (207) 737-8008

Filename: ...\013_Wingwall Details.dgn Division: HIGHWAY Username: common Date:7/13/2022

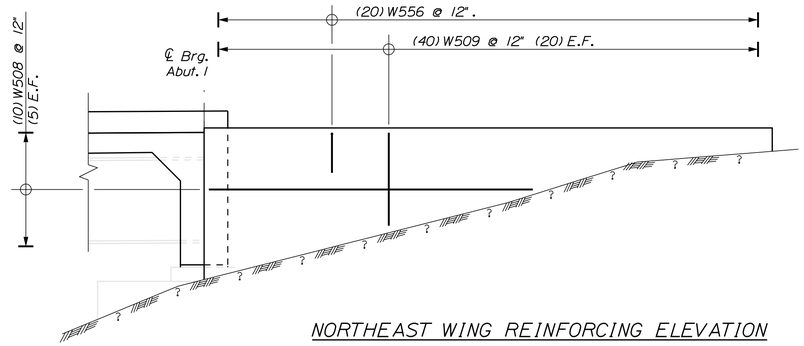


NORTHEAST WING ELEVATION



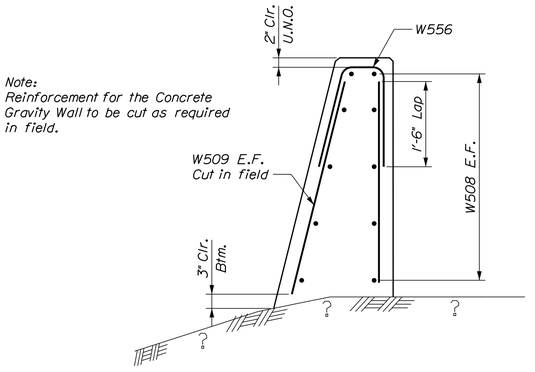
Note:
Steel Approach Railing Posts & Fiber Form Tubes to be cut to the batter of the back of the Gravity Wall as required in field.

NE WINGWALL DIMENSIONAL SECTION



NORTHEAST WING REINFORCING ELEVATION

Note:
Reinforcement for the Concrete Gravity Wall to be cut as required in field.



NE WINGWALL REINFORCING SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

PROJ. MANAGER	J. STETSON		
DESIGN-DETAILED	PAB	MAY 2021	DATE
CHECKED-REVIEWED	ETC	MAY 2021	BY
DESIGN2-DETAILED2	ETC		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BATCHELDERS GRANT
EVANS BROOK BRIDGE

NORTHEAST WINGWALL
DETAILS

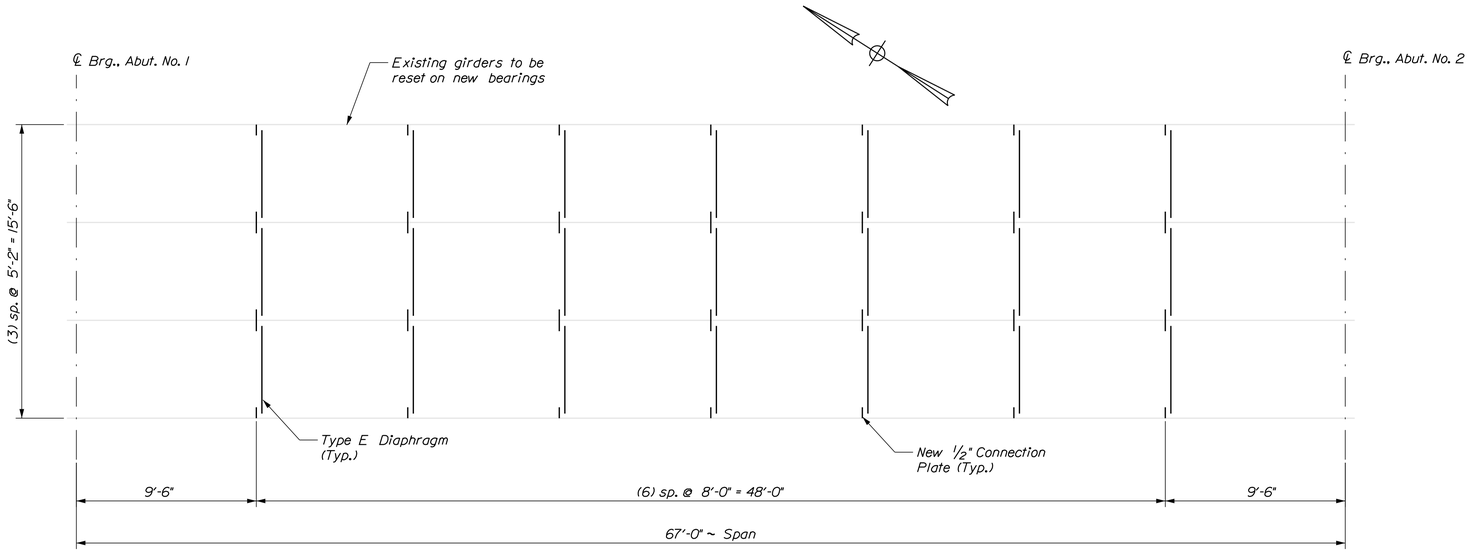
SHEET NUMBER

14

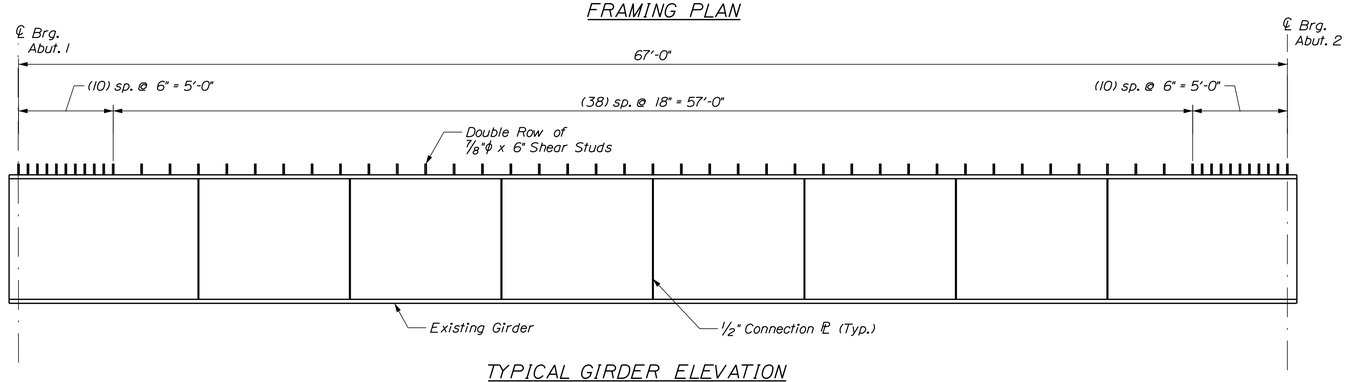
OF 22

CALDERWOOD ENGINEERING
82 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2907 FAX (207) 737-2908

Date:7/13/2022
Username: common
Division: HIGHWAY
Filename: ...\014_WingwallDetails.dgn



FRAMING PLAN

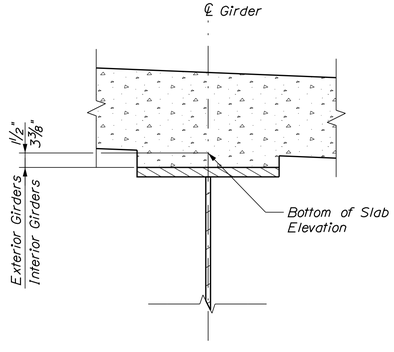


TYPICAL GIRDER ELEVATION

N.T.S.

BOTTOM OF SLAB ELEVATIONS											
GIRDER	℄ Brg. Abut. 1	0.1 x L	0.2 x L	0.3 x L	0.4 x L	0.5 x L	0.6 x L	0.7 x L	0.8 x L	0.9 x L	℄ Brg. Abut. 2
G1	830.00	829.99	829.99	829.98	829.96	829.93	829.89	829.84	829.79	829.73	829.66
G2	830.15	830.14	830.13	830.11	830.09	830.06	830.02	829.98	829.93	829.87	829.82
G3	830.15	830.14	830.13	830.11	830.09	830.06	830.02	829.98	829.93	829.87	829.82
G4	830.00	829.99	829.99	829.98	829.96	829.93	829.89	829.84	829.79	829.73	829.66

GIRDER	DEAD LOAD COMPONENT	DEAD LOAD DEFLECTIONS (INCHES)										
		℄ BRG. ABUT. 1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	℄ BRG. ABUT. 2
G1	Steel Dead Load	0.00	0.09	0.17	0.24	0.28	0.29	0.28	0.24	0.17	0.09	0.00
	Deck Concrete Load	0.00	0.34	0.65	0.89	1.05	1.10	1.05	0.89	0.65	0.34	0.00
	Super Imposed Dead Load	0.00	0.04	0.07	0.10	0.11	0.12	0.11	0.10	0.07	0.04	0.00
G2	Steel Dead Load	0.00	0.09	0.17	0.24	0.28	0.29	0.28	0.24	0.17	0.09	0.00
	Deck Concrete Load	0.00	0.27	0.51	0.70	0.82	0.86	0.82	0.70	0.51	0.27	0.00
	Super Imposed Dead Load	0.00	0.03	0.05	0.07	0.08	0.09	0.08	0.07	0.05	0.03	0.00
G3	Steel Dead Load	0.00	0.09	0.17	0.24	0.28	0.29	0.28	0.24	0.17	0.09	0.00
	Deck Concrete Load	0.00	0.27	0.51	0.70	0.82	0.86	0.82	0.70	0.51	0.27	0.00
	Super Imposed Dead Load	0.00	0.03	0.05	0.07	0.08	0.09	0.08	0.07	0.05	0.03	0.00
G4	Steel Dead Load	0.00	0.09	0.17	0.24	0.28	0.29	0.28	0.24	0.17	0.09	0.00
	Deck Concrete Load	0.00	0.34	0.65	0.89	1.05	1.10	1.05	0.89	0.65	0.34	0.00
	Super Imposed Dead Load	0.00	0.04	0.07	0.10	0.11	0.12	0.11	0.10	0.07	0.04	0.00



BLOCKING DETAIL

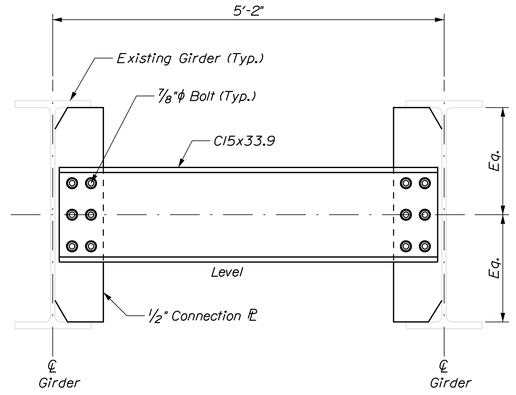
Do not use for setting formwork

STRUCTURAL STEEL NOTES

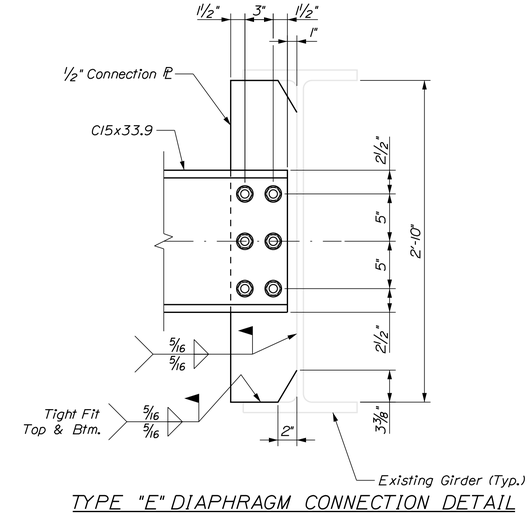
1. Bolted diaphragms or cross frame connections shall be made using 7/8 inch diameter, ASTM F3125, Grade A325 Type I galvanized high strength bolts. Hole size shall be 1 inch diameter. The minimum edge distance shall be 1 1/2 inch unless otherwise shown. Oversized or short-slotted holes are not permitted. Bolt threads shall be excluded from the shear plane of cross frame or diaphragms connections.

2. Girder support plates and anchor rods at Abutment 1 and bolster blocks, shims, and thread rods at Abutment 2 shall be considered incidental to Pay Item 504.70.

3. New diaphragms and connection plates shall be painted in accordance with the specifications.



TYPE "E" DIAPHRAGM DETAIL



TYPE "E" DIAPHRAGM CONNECTION DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN 018724.00

STATE OF MAINE — ERIC CALDERWOOD No. 9099 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE MAY 2022

PROJ. MANAGER	J. STETSON
DESIGN-DETAILED	PAB
CHECKED-REVIEWED	ETC
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	JJH/DLM	MAR 2022
REVISIONS 2	ETC	MAR 2022
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

STRUCTURAL STEEL DETAILS

SHEET NUMBER

15

OF 22

CALDERWOOD ENGINEERING — 122 RIVER ROAD, RICHMOND, ME 04357 — PH. (207) 737-2061 FAX (207) 737-2068

Filename: ...\Details\015_Framing Plan.dgn Division: HIGHWAY Username: common Date:7/13/2022

SUPERSTRUCTURE NOTES

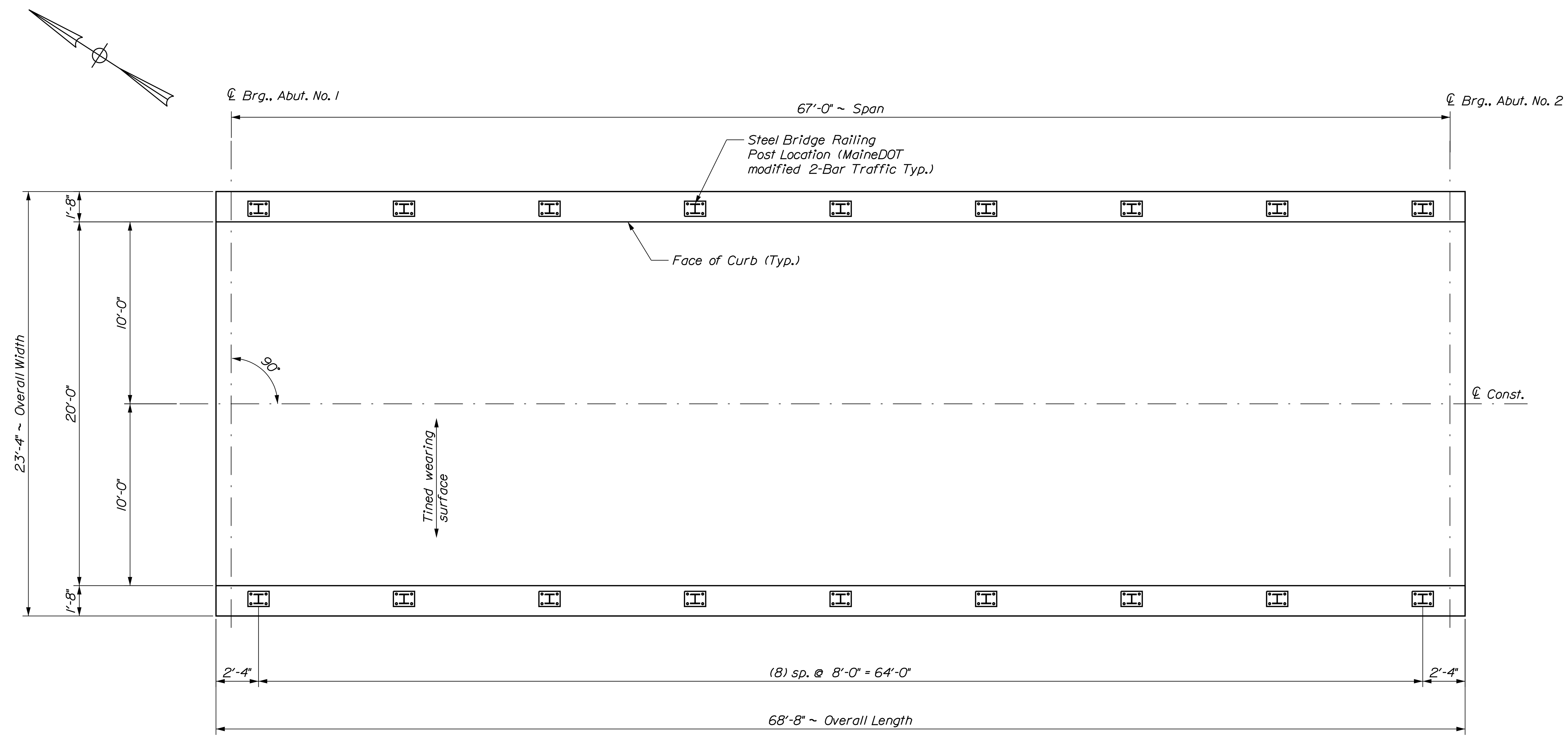
1. The theoretical blocking used for design of the structure varies, see blocking detail.

2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.

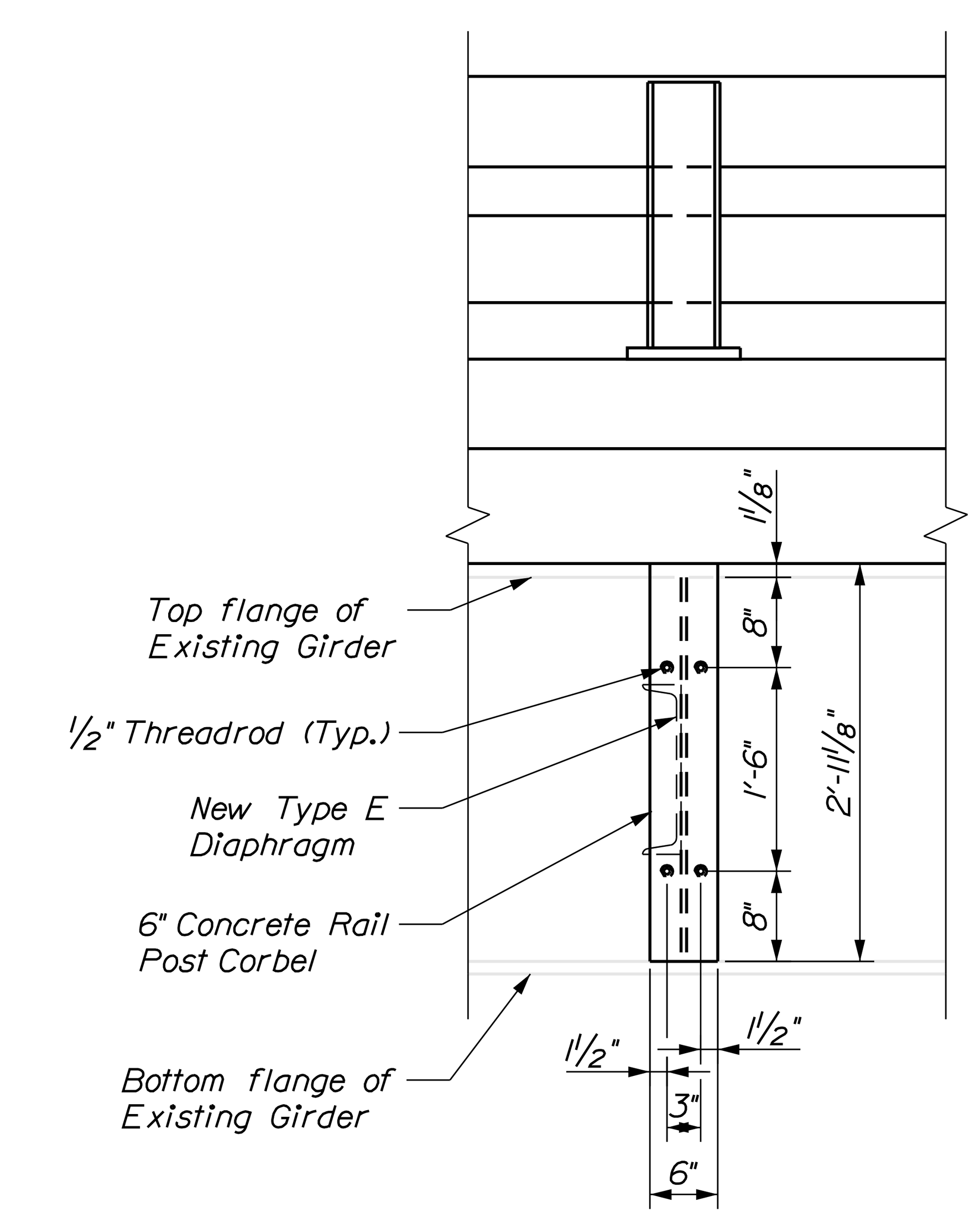
3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab, as well as between the slab and corbel.

4. The superstructure slab concrete shall be placed continuously and shall be kept plastic until the entire placement has been made.

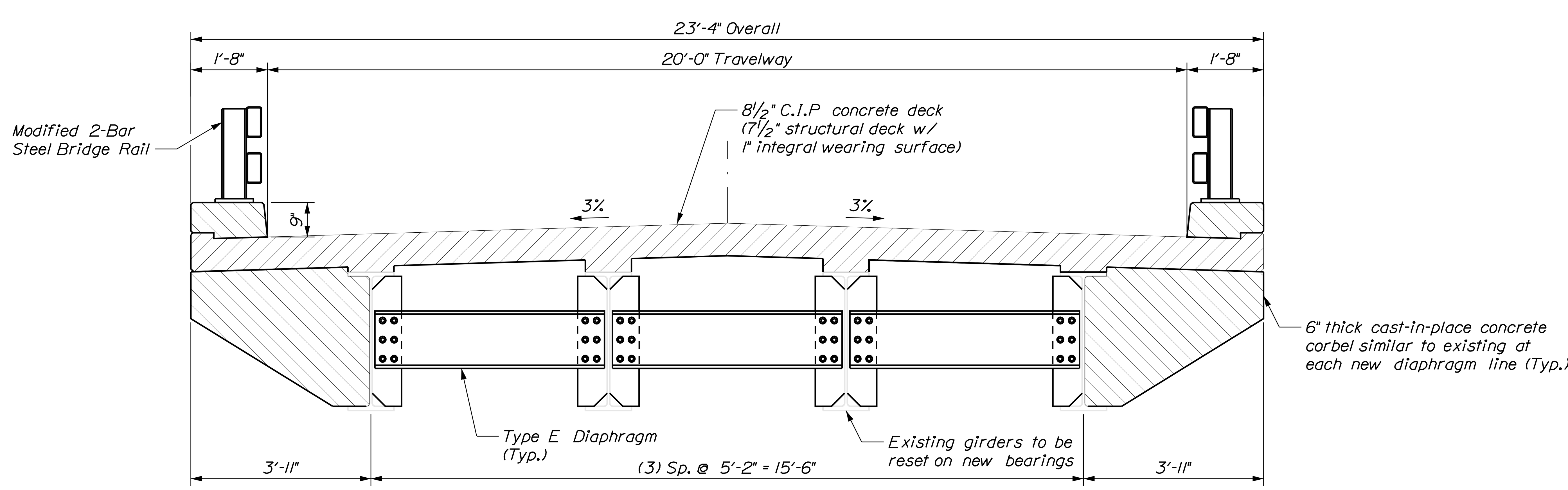
5. Cast-in-place concrete corbels shall be considered incidental to Pay Item 502.26, Structural Concrete Roadway and Sidewalk Slab on Steel Bridges. No separate payment shall be made.



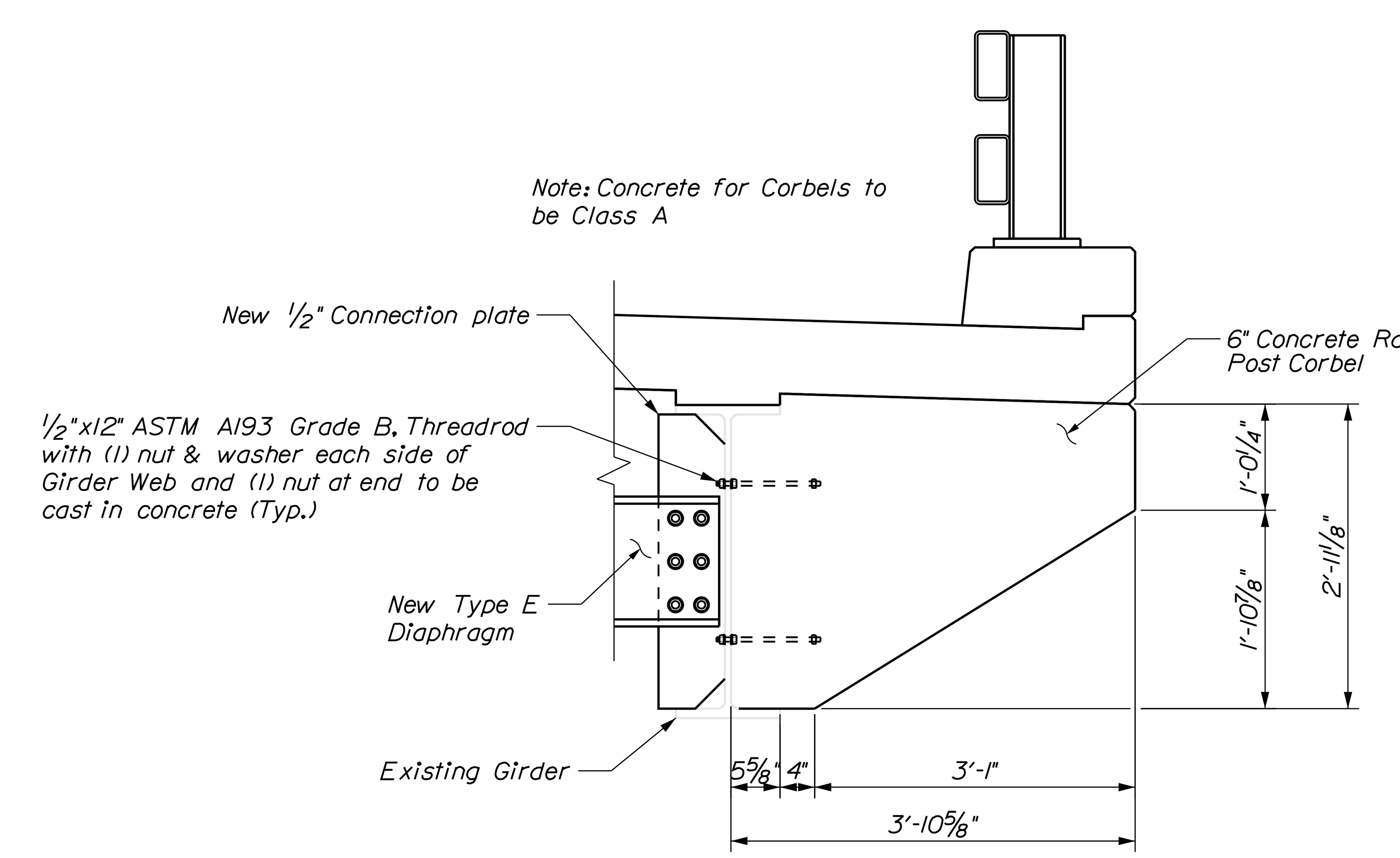
SUPERSTRUCTURE PLAN



RAIL POST CORBEL ELEVATION



PROPOSED SUPERSTRUCTURE SECTION



DIAPHRAGM CORBEL DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

		BY	DATE
PROJ. MANAGER	J. STETSON		
DESIGN-DETAILED	PAB	JJH/DLM	MAR 2022
CHECKED-REVIEWED	ETC	ETC	MAR 2022
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BATCHELDERS GRANT
EVANS BROOK BRIDGE

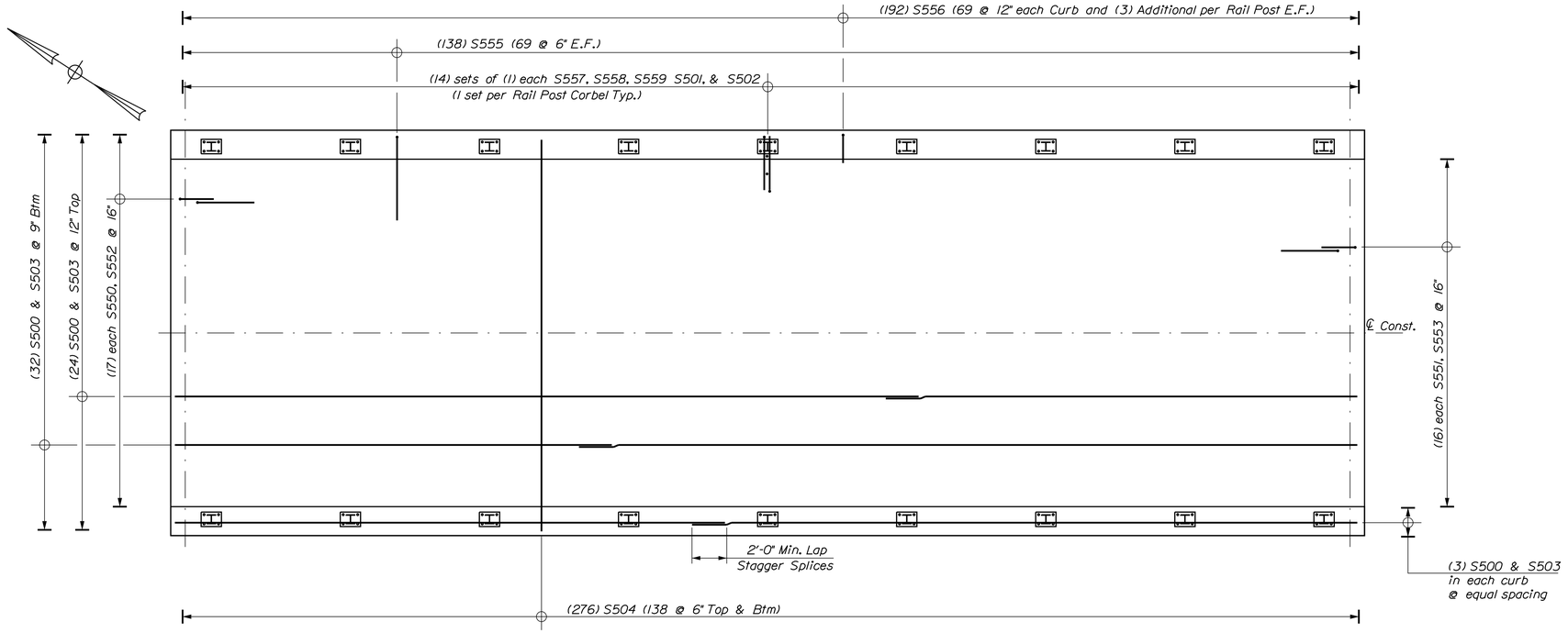
SUPERSTRUCTURE PLAN

SHEET NUMBER

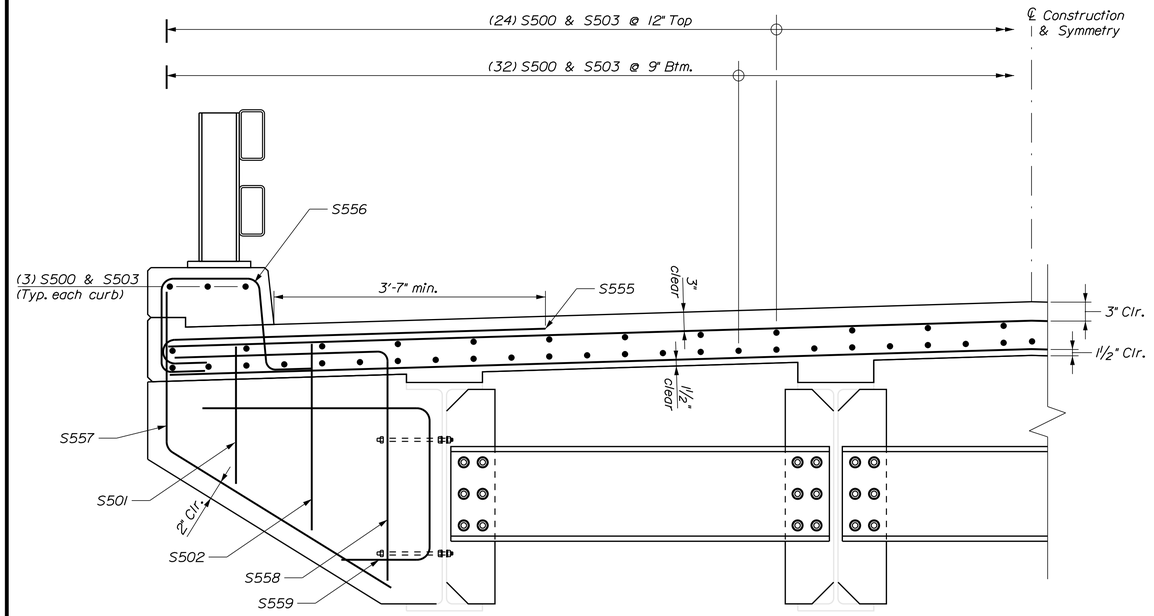
16

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

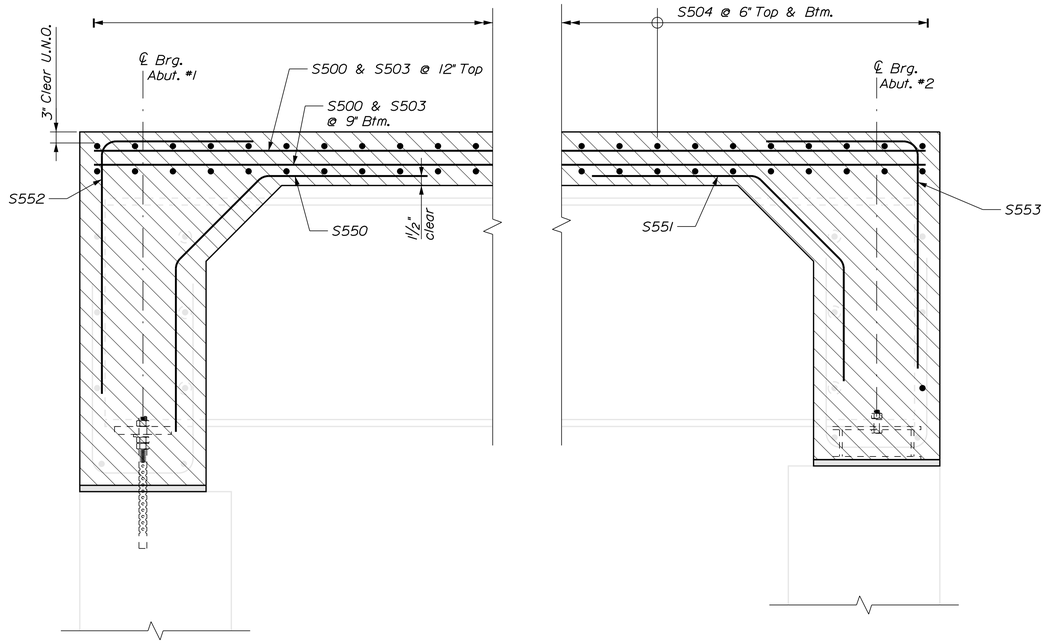
Filename: ...\016_Superstructure Plan.dgn Division: HIGHWAY Username: common Date: 7/13/2022



SUPERSTRUCTURE REINFORCING PLAN



PARTIAL SUPERSTRUCTURE REINFORCING SECTION



PARTIAL LONGITUDINAL REINFORCING SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

P.E. NUMBER
9099

SIGNATURE

DATE
MAY 2022

PROJ. MANAGER	J. STETSON	
DESIGN-DETAILED	PAB	MAR 2022
CHECKED-REVIEWED	ETC	MAR 2022
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

SUPERSTRUCTURE
REINFORCING

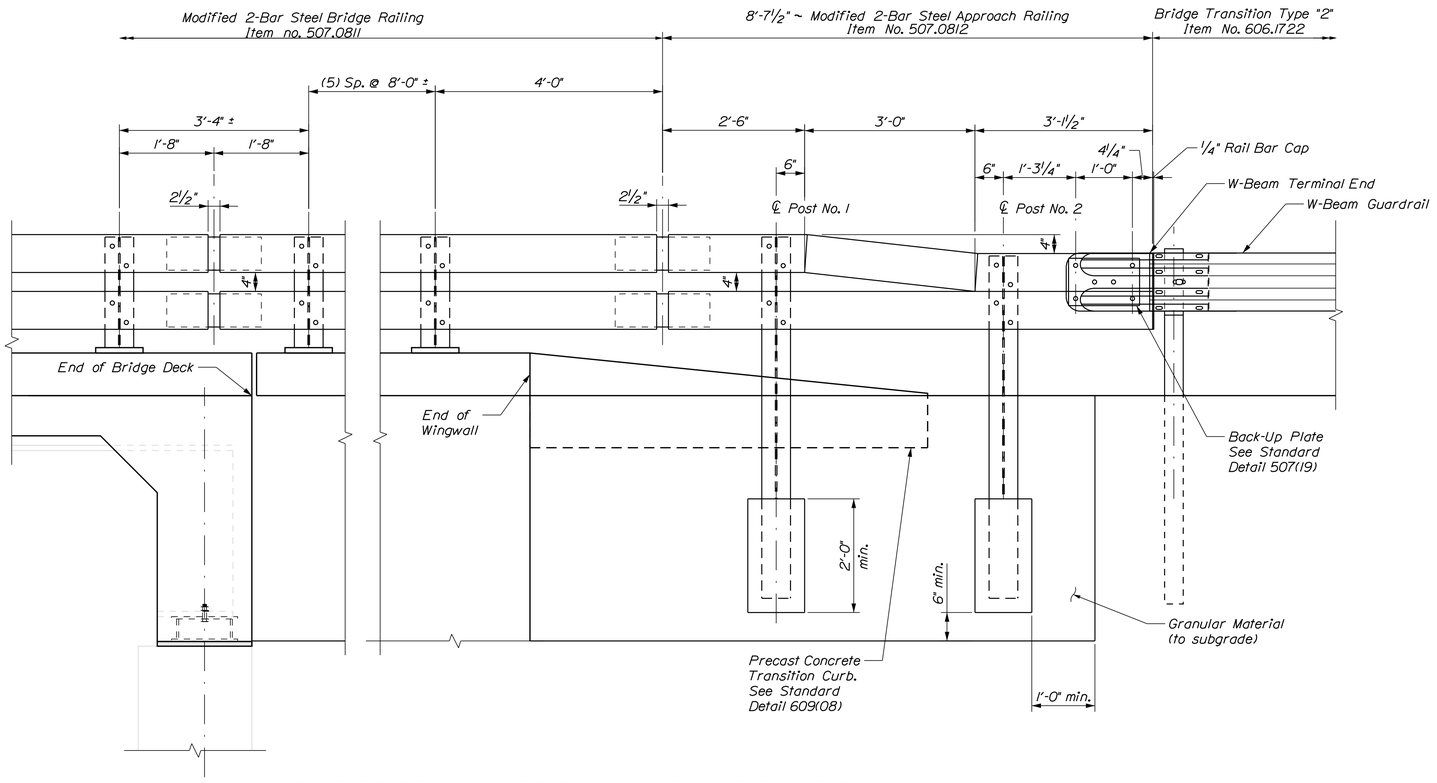
SHEET NUMBER

17

OF 22

CALDERWOOD ENGINEERING
82 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2907 FAX (207) 737-2908

Filename: ...\017_Superstructure Reinforcing.dgn Division: HIGHWAY Username: common Date:7/13/2022



MODIFIED STEEL APPROACH RAILING ~ ABUTMENT 2

Note: Typical at SW & SE Corners

MODIFIED STEEL APPROACH BRIDGE RAILING NOTES

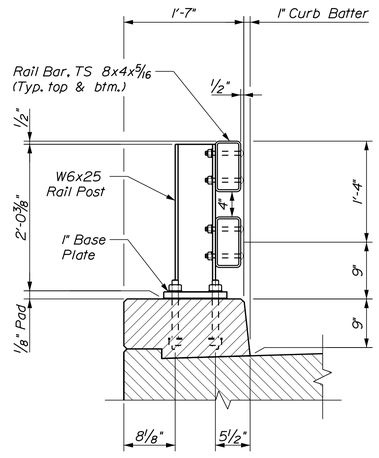
1. Both top and bottom rails shall be fabricated using TS 8x4x5/16

2. Except as shown on these details, the Modified Steel Approach Railing and Modified Steel Bridge Rail shall conform to the details and specifications in the Maine Standard Details and Specifications.

3. The Modified Steel Approach Railing and Modified Steel Bridge Rail shall be galvanized and top coated. Refer to the Specifications for more information.

4. The Precast Concrete Transition Curb at the Northwest shall be modified as required in the field to accommodate the cast in place closure pour between the MSE Wall and existing wingwall. All Precast Concrete Transition Curbs shall be considered incidental to the Approach Railings.

5. See next 2 sheets for Abutment #1 the Modified Steel Approach Railing.



MODIFIED STEEL BRIDGE RAIL

Usename: common Date:7/13/2022

Division: HIGHWAY

Filename: ...\018_Bridge Rail Details.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC J.
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

PROJ. MANAGER	J. STETSON		
DESIGN-DETAILED	PAB	JJH/DLM	MAR 2022
CHECKED-REVIEWED	ETC	ETC	MAR 2022
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BATCHELDERS GRANT
EVANS BROOK BRIDGE

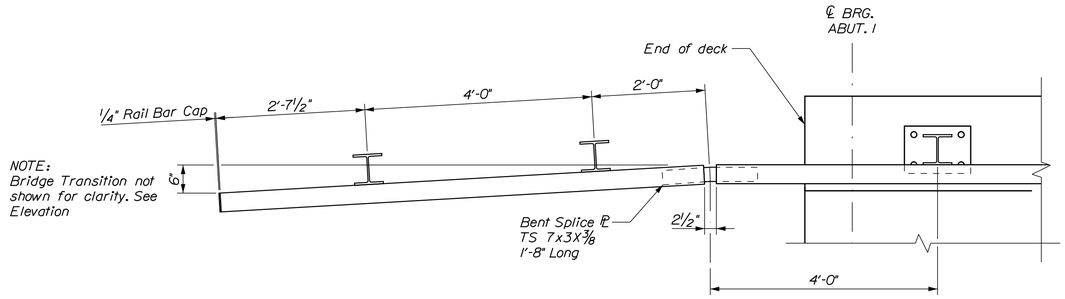
BRIDGE RAIL DETAILS
1 of 3

SHEET NUMBER

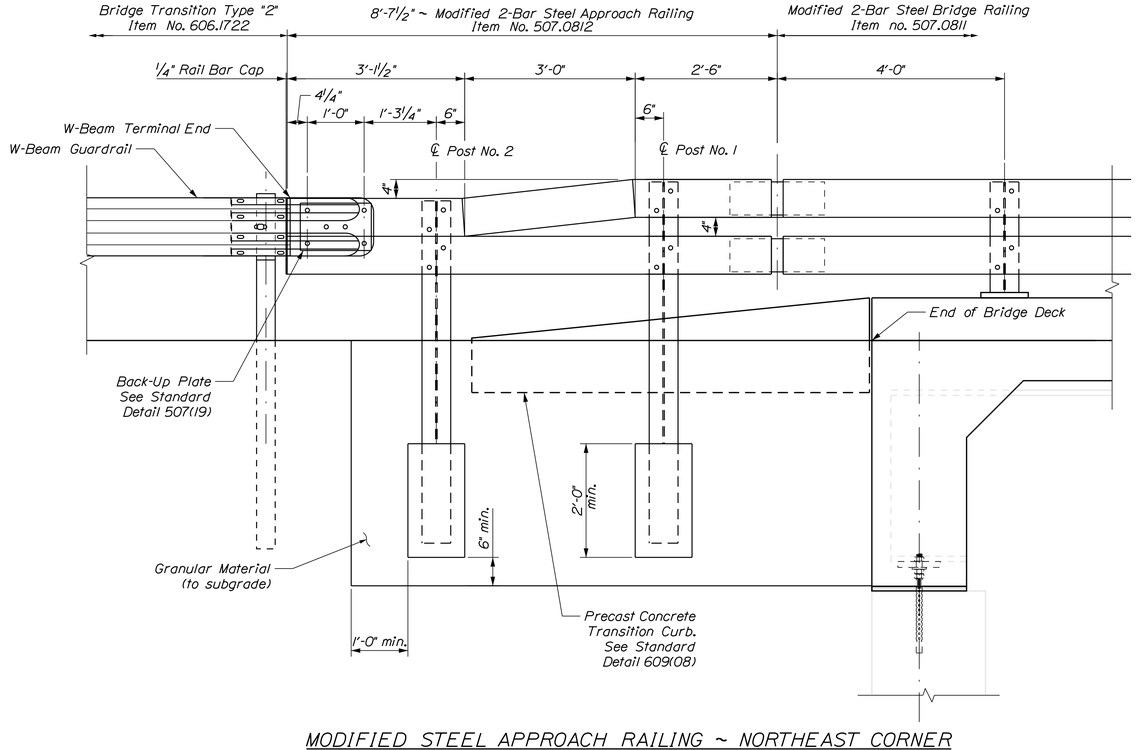
18

OF 22

CALDERWOOD ENGINEERING
22 RIVER ROAD
RICHMOND, ME 04357
TEL (207) 737-2907 FAX (207) 737-2988



MODIFIED STEEL APPROACH RAILING PLAN ~ NORTHEAST CORNER



MODIFIED STEEL APPROACH RAILING ~ NORTHEAST CORNER

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC A.
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

PROJ. MANAGER	J. SIETSON
DESIGN-DETAILED	PAB
CHECKED-REVIEWED	ETC
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	JJH/DLM	MAR 2022
REVISIONS 2	ETC	MAR 2022
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

BRIDGE RAIL DETAILS
2 of 3

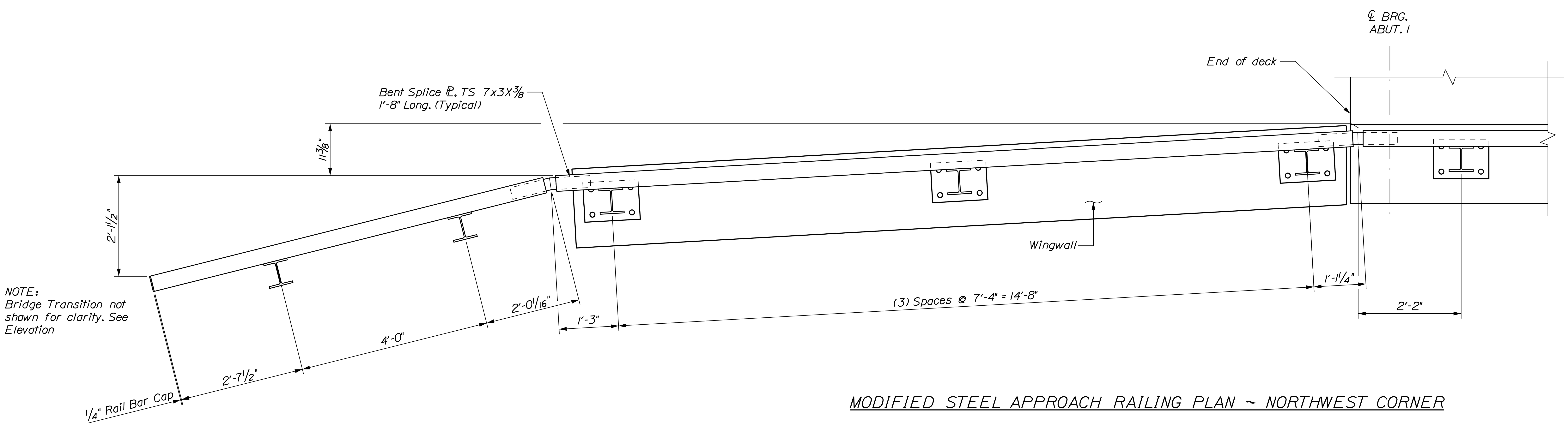
SHEET NUMBER

19

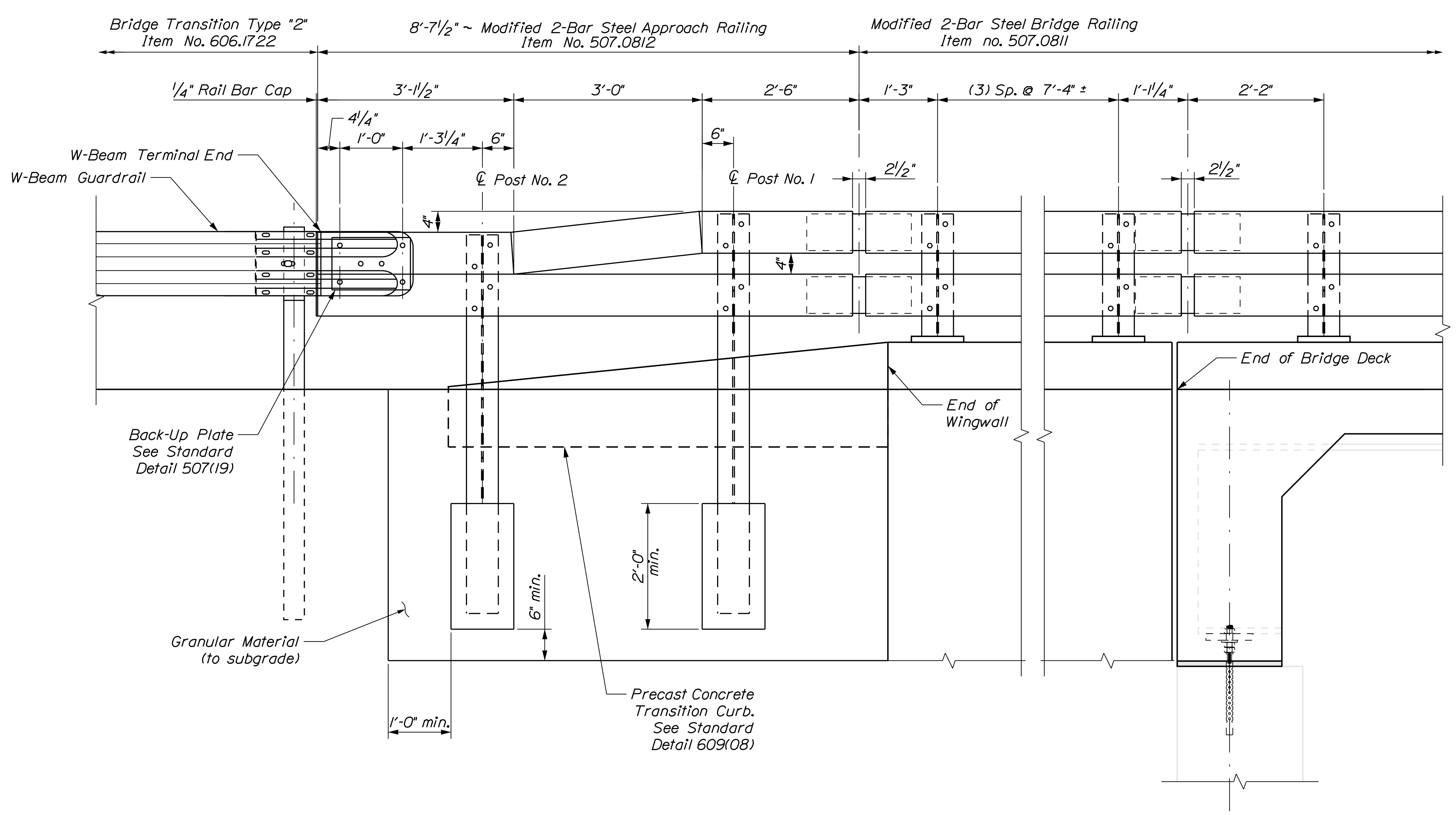
OF 22

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2061 FAX (207) 737-2068

Filename: ...\019_Bridge Rail Details .dgn Division: HIGHWAY Username: common Date:7/13/2022



MODIFIED STEEL APPROACH RAILING PLAN ~ NORTHWEST CORNER



MODIFIED STEEL APPROACH RAILING ~ NORTHWEST CORNER

Filename: ...\020_Bridge Rail Details .dgn Division: HIGHWAY Username: common Date: 7/13/2022

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
MAY 2022

	BY	DATE
PROJ. MANAGER	J. STETSON	
DESIGN-DETAILED	PAB	JJH/DLM	MAR 2022
CHECKED-REVIEWED	ETC	ETC	MAR 2022
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT
EVANS BROOK BRIDGE

BRIDGE RAIL DETAILS
3 of 3

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357

SHEET NUMBER
20
OF 22

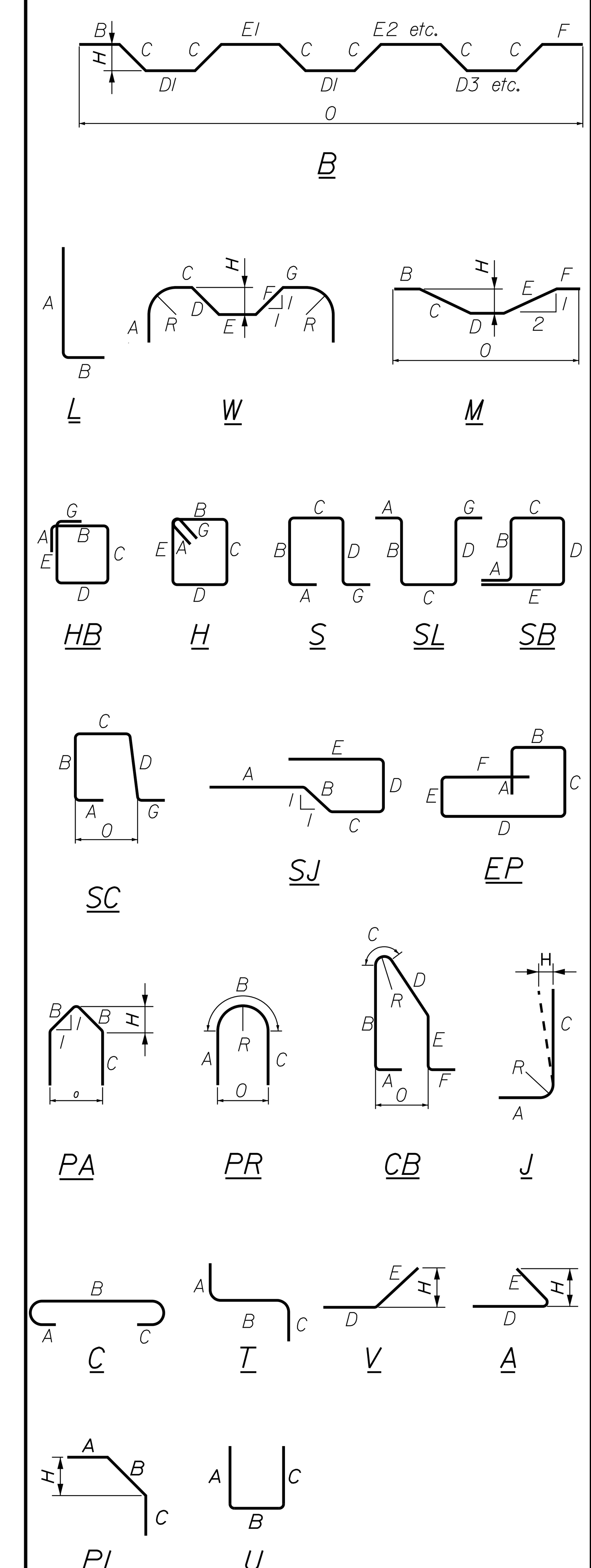
STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION
Abutment No. 1							
A500	8	21'-2"	Horizontal Backwall Bars				
A800	3	1'-8"	Drill and Anchored Pin				
Abutment No. 2							
B500	6	19'-6"	Horizontal Backwall Bars				
B501	4	8'-6"	Horizontal Backwall Bars				
B502	6	1'-3"	Abutment 2 Keeper Block				
B503	2	1'-6"	Abutment 2 Keeper Block				
B504	12	4'-3"	Abutment 2 Corner Connection				
B505	18	1'-9"	Abutment 2 Corner Connection				
Superstructure							
S500	62	40'-0"	Longitudinal Deck Bars				
S501	14	1'-10"	Vertical Bar for Rail Post Corbel				
S502	14	2'-5 1/2"	Vertical Bar for Rail Post Corbel				
S503	62	30'-2"	Longitudinal Deck Bars				
S504	276	23'-0"	Transverse Deck Bars				
Wingwalls							
W500	4	15'-11"	NW Wingwall				
W501	12	1'-8"	NW Wingwall Corbels				
W502	8	25'-0"	SW&SE Wingwall				
W503	8	19'-3"	SW&SE Wingwall				
W504	48	1'-5"	SW&SE Corbels				
W505	3	7'-0"	NW Wingwall Closure				
W506	2	6'-0"	NW Wing btwn corbels				
W507	10	6'-8"	SW & SE Wing btwn corbels				
W508	10	19'-8"	NE Wing *				
W509	40	4'-10"	NE Wing *				
			* Denotes bar to be cut in field				
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														
A550	16	6'-2"	U	2'-6"	1'-2"	2'-6"								Abutment 1 Backwall
A551	2	8'-2"	U	3'-6"	1'-2"	3'-6"								Abutment 1 Backwall
A552	8	4'-6 3/4"	U	1'-9"	1'-0 3/4"	1'-9"								
A553	2	6'-4"	L	3'-2"	3'-2"									
Abutment No. 2														
B550	16	6'-2"	U	2'-6"	1'-2"	2'-6"								Abutment 2 Backwall
B551	8	4'-6 3/4"	U	1'-9"	1'-0 3/4"	1'-9"								
Superstructure														
S550	17	6'-1 1/4"	P1	2'-3"	1'-7 1/4"	2'-3"					1'-1 1/2"			Abutment 1 Haunch Bar
S551	16	5'-5 1/4"	P1	2'-3"	1'-7 1/4"	1'-7"					1'-1 1/2"			Abutment 2 Haunch Bar
S552	17	5'-4"	L	3'-4"	2'-0"									Abutment 1 into Deck
S553	16	5'-0"	L	3'-0"	2'-0"									Abutment 2 into Deck
S555	276	5'-5"	C	5"	5'-0"	0"								Deck Overhang Bar
S556	192	4'-10 1/2"	SC	7"	1'-2 3/4"	1'-3 1/2"	1'-2 1/4"			7"		1'-4 1/2"		Curb Stirrup Bars
S557	14	5'-10"	V				2'-3 1/2"	3'-6 1/2"			2'-11 1/2"			Outer Corbel Bar
S558	14	5'-9 1/4"	L	2'-9 1/4"	3'-0"									Inner Corbel Bar
S559	14	6'-2"	U	1'-2"	2'-0"	3'-0"								Inner Corbel Bar
Wingwalls														
W450	6	2'-8"	L	10"	1'-10"									NW Wingwall btwn. Corbels
W451	30	2'-3"	L	10"	1'-5"									SW&SE Wingwall btwn. Corbels
W550	12	2'-8"	L	10"	1'-10"									NW Wingwall near Corbels
W551	26	3'-9 5/8"	SC	11"	9 3/4"	1'-3 1/8"	9 3/4"			0"		1'-3 7/8"		NW Wingwall Curb Stirrups
W552	66	2'-3"	L	10"	1'-5"									SW&SE Wingwall Near Corbels
W553	122	3'-2 1/8"	SC	11"	6"	1'-3 1/8"	6"			0"		1'-3 5/8"		SW&SE Wingwall Curb Stirrups
W554	6	4'-0"	L	2'-2"	1'-10"									NW Wingwall Closure
W555	2	1'-10"	L	10"	1'-0"									End of SW & SE Wings
W556	20	4'-2 1/2"	SC	0"	1'-9"	8 1/2"	1'-9"			0"		1'-1 3/4"		NE Wing
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 315 and ACI Standard 318.

Reinforcing Bars:
ASTM A615/A615M, Grade 60 (U.N.O.)
ASTM A995/A995M, Grade 75 (Bar Marks ending "ss")
GFRP, CSA S807-10, ACI 440.1R-15 (Bar Marks ending "g")

GENERAL NOTES

1. The first two digits 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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-1872(400)

WIN
018724.00

STATE OF MAINE ERIC CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER 9099
DATE MAY 2022

	BY	DATE
PROJ. MANAGER	J. STETSON	
DESIGN-DETAILED	PAB	JJH/DLM	3/2022
CHECKED-REVIEWED	ETC	ETC	3/2022
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BATCHELDERS GRANT EVANS BROOK BRIDGE

REINFORCING SCHEDULE

SHEET NUMBER
21
OF 22

CALDERWOOD ENGINEERING, 222 RIVER ROAD, RICHMOND, ME 04357

Filename: ...\021_ReinforceSchedule_18724_00.dgn Division: HIGHWAY Username: common Date:7/13/2022

PLAN LEGEND

Town, County, State	New R/W Along Existing R/W	Sanitary Sewer	Traveled Way
Approx. Property Lines P.L.	Building / Clearing Limit Line	Telephone Line	Ditch
Existing Right of Way	Trees Conifer / Deciduous	Electric Line	Catch Basin
Limits of Wrought Portion L.O.W.P.	Tree Line / Bush Line	Water Line	Manhole
Control Of Access C.O.A.	Water Edge	Underdrain Line	Sewer Manhole
New Right of Way	Ledge / Rock/Boulder / Flag Pole	Gas Line	Utility Pole
New Easement	Fence CHAIN LINK / BARB WIRE / STOCKADE	Guardrail	Fire Hydrant
New Temporary Rights	Sign / Well / Mailbox	Culvert	Curbing
New R/W Within Existing R/W			

Existing / Proposed

Cut Line C C C	Fill Line F F F
Stonewall	Retaining Wall
Baseline 10+00 11+00 12+00	
Monument	Traverse Point
Iron Rod Found IRF	Pipe Found IPF
Replacement Pin Set	

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.

25 0 25 50 75 100
Scale of Feet

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.

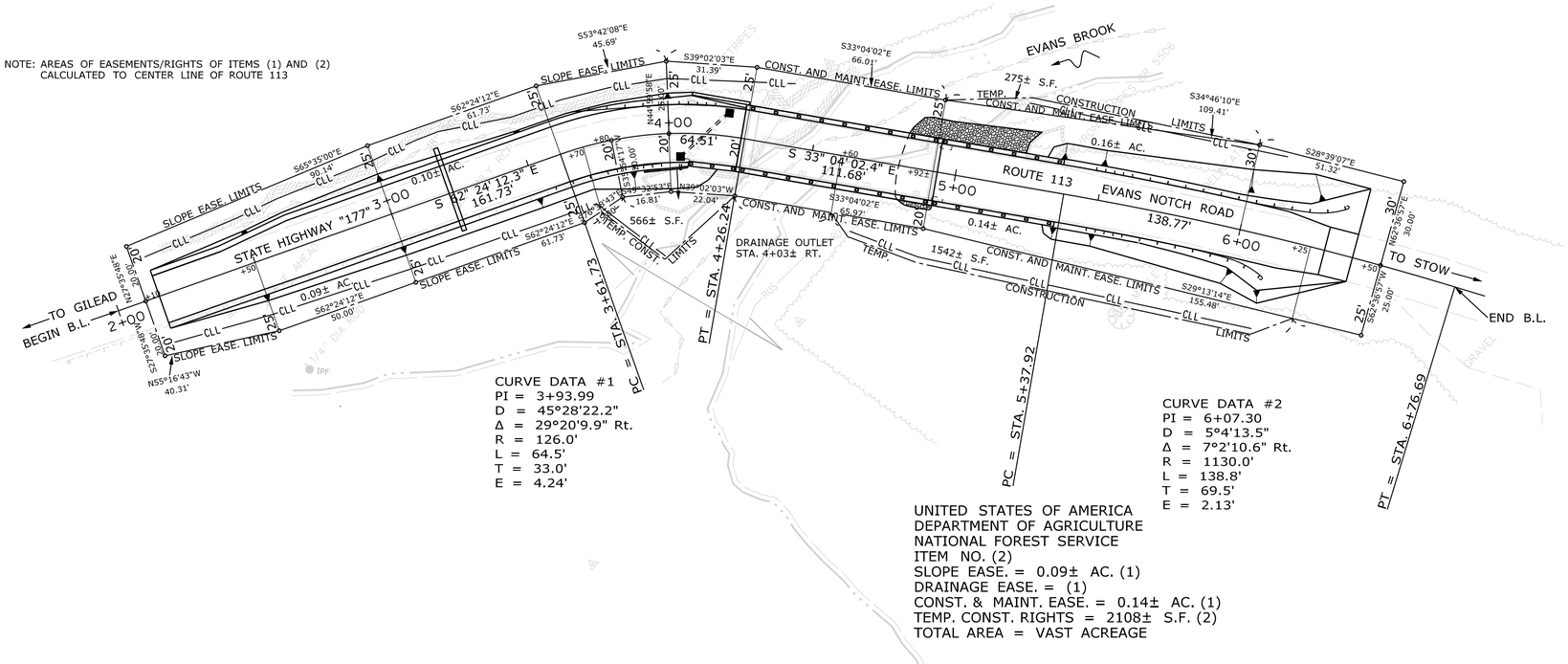
STATE OF MAINE
REGISTRY OF DEEDS

COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and
recorded in Plan Bk _____, Pg. _____
Attest: _____
REGISTER

GRID NORTH
NAD83 (2011) MAINE 2000 WEST ZONE
NAVD 88
COMBINED FACTOR 0.99991825

UNITED STATES OF AMERICA
DEPARTMENT OF AGRICULTURE
NATIONAL FOREST SERVICE
ITEM NO. (1)
SLOPE EASE. = 0.10± AC. (1)
CONST. & MAINT. EASE. = 0.16± AC. (1)
TEMP. CONST. RIGHTS = 275± S.F. (1)
TOTAL AREA = VAST ACREAGE

NOTE: AREAS OF EASEMENTS/RIGHTS OF ITEMS (1) AND (2) CALCULATED TO CENTER LINE OF ROUTE 113



CURVE DATA #1
PI = 3+93.99
D = 45°28'22.2"
Δ = 29°20'9.9" Rt.
R = 126.0'
L = 64.5'
T = 33.0'
E = 4.24'

CURVE DATA #2
PI = 6+07.30
D = 5°4'13.5"
Δ = 7°2'10.6" Rt.
R = 1130.0'
L = 138.8'
T = 69.5'
E = 2.13'

UNITED STATES OF AMERICA
DEPARTMENT OF AGRICULTURE
NATIONAL FOREST SERVICE
ITEM NO. (2)
SLOPE EASE. = 0.09± AC. (1)
DRAINAGE EASE. = (1)
CONST. & MAINT. EASE. = 0.14± AC. (1)
TEMP. CONST. RIGHTS = 2108± S.F. (2)
TOTAL AREA = VAST ACREAGE

STATE HIGHWAY DESIGNATION
STATE HIGHWAY O-2, DEC. 5, 1951
REDESIGNATED STATE HIGHWAY "724", MARCH 17, 1954
REDESIGNATED STATE HIGHWAY "177", JUNE 28, 1971

NOTE:
MAINTENANCE OF S.H. "177"
TO BE STATE HIGHWAY COMMISSION RESPONSIBILITY WITH U.S.A. APPROVAL
PER "MODIFIED COOPERATIVE AGREEMENT" DATED OCT. 9, 1940
STATE HIGHWAY COMMISSION / SECRETARY OF AGRICULTURE OF U.S.A.

COPY FILED IN D.O.T. DEED FILE UNDER UNITED STATES DEPARTMENT OF AGRICULTURE

EVANS BROOK BRIDGE
OVER
EVANS BROOK

BRIDGE NO. 5506 WIN 018724.00

ITEM	TECH	CHECKED
EXISTING CONDITION PLAN	PNS	PNS
FINAL RIGHT OF WAY		
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
BATCHELDERS GRANT
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

BRUCE A. VAN NOTE
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "177"
ROUTE 113 EVANS NOTCH ROAD
BATCHELDERS GRANT OXFORD COUNTY
FEDERAL AID PROJECT NO. STP-1872(400)

JANUARY 2022 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 9-420
SCALE 1" = 25' | SHEET 1 OF 1

SHEET NUMBER
22
OF 22

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Username: Perry.Silvermon Date:7/13/2022 Division: ROW