

# 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 Modified for Strength I

### HYDROLOGIC DATA

Drainage Area \_\_\_\_\_ 18.11 sq mi  
 Design Discharge (Q50) \_\_\_\_\_ 2810 cfs  
 Check Discharge (Q100) \_\_\_\_\_ 3245 cfs  
 Headwater Elevation (Q1.1) \_\_\_\_\_ 466.28 ft  
 Headwater Elevation (Q25) \_\_\_\_\_ 473.17 ft  
 Headwater Elevation (Q50) \_\_\_\_\_ 473.50 ft  
 Headwater Elevation (Q100) \_\_\_\_\_ 473.77 ft  
 Discharge Velocity (Q1.1) \_\_\_\_\_ 8.29 fps  
 Discharge Velocity (Q50) \_\_\_\_\_ 8.69 fps  
 Discharge Velocity (Q100) \_\_\_\_\_ 9.01 fps

### MATERIALS

Concrete:  
 Precast \_\_\_\_\_ Class "P"  
 Deck, Curb, Transition Barrier \_\_\_\_\_ Class "A1"  
 All Other \_\_\_\_\_ Class "A"  
 Reinforcing:  
 Plain Reinforcing Steel \_\_\_\_\_ ASTM A615, Grade 60  
 Glass Fiber Reinforcing Polymer (GFRP) \_\_\_\_\_ ASTM D7957  
 Low-Carbon Chromium Steel: \_\_\_\_\_ ASTM A1035, Type CS, Grade 100  
 Prestressing Strands \_\_\_\_\_ AASHTO M 203 (ASTM A416),  
 Grade 270, Low Relaxation

### BASIC DESIGN STRESSES

Concrete:  
 Class "A" & "A1" \_\_\_\_\_  $f'c = 4,000$  psi  
 Class "P" \_\_\_\_\_  $f'c = 8,000$  psi  
 \_\_\_\_\_  $f'ci = 6,500$  psi  
 Reinforcing:  
 Plain Reinforcing Steel \_\_\_\_\_  $f_y = 60,000$  psi  
 Glass Fiber Reinforced Polymer  
 Minimum Tensile Strength \_\_\_\_\_  $f_{fu} = 100,000$  psi  
 Minimum Elastic Modulus \_\_\_\_\_  $E_f = 6,500,000$  psi  
 Minimum Nominal Design Tensile Strain \_\_\_\_\_  $\epsilon_{fu} = 1.1\%$   
 Low-Carbon Chromium Steel: \_\_\_\_\_  $f_y = 100,000$  psi  
 Prestressing Strand \_\_\_\_\_  $F_{\mu} = 270,000$  psi

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## BROWNFIELD OXFORD COUNTY MERRILLS CORNER BRIDGE OVER SHEPARDS RIVER

OLD COUNTY ROAD  
FEDERAL AID PROJECT NO. 02753000  
BRIDGE NO. 0714  
PROJECT LENGTH 0.047 MILES

### UTILITIES

Central Maine Power  
Consolidated Communications

### TRAFFIC DATA

Current (2023) AADT	250
Future (2043) AADT	280
DHV - % of AADT	12
Design Hour Volume	34
Heavy Trucks (% of AADT)	7
Heavy Trucks (% of DHV)	1
Directional Distribution (% of DHV)	57
18 kip Equivalent P 2.0	5
18 kip Equivalent P 2.5	4
Design Speed (mph)	45

### MAINTENANCE OF TRAFFIC

The bridge will be closed to traffic during construction with traffic detoured off-site.

<u>PROJECT LOCATION</u>	MERRILLS CORNER BRIDGE (#0714) OVER SHEPARDS RIVER. LOCATED 0.07 OF A MILE SOUTH OF HAMPSHIRE ROAD.
<u>OUTLINE OF WORK</u>	BRIDGE REPLACEMENT

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
APPROVED \_\_\_\_\_  
ACTING COMMISSIONER \_\_\_\_\_  
CHIEF ENGINEER \_\_\_\_\_  
DATE 12-15-25  
12-9-25

ERIN D. BREWER  
SIGNATURE  
No. 19345  
P.E. NUMBER  
12/03/2025  
DATE

PROJ. MANAGER	JULIE BRASK	DATE	12/03/2025
DESIGN-DETAILED	EDB	BY	EDB
CHECK-REVIEWED	RMN		RMN
DESIGN-DETAILED2			
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WIN 027530.00

BROWNFIELD  
MERRILLS CORNER BRIDGE  
TITLE SHEET

SHEET NUMBER  
**1**  
OF 26

Date: 12/3/2025  
Username: Erin.Brewer

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.23	REMOVING SINGLE TREE TOP ONLY	3	EA
201.24	REMOVING STUMP	3	EA
202.19	REMOVING EXISTING BRIDGE (Steel 9,000 lbs) (Concrete 28 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	109	SY
203.20	COMMON EXCAVATION	300	CY
203.24	COMMON BORROW	10	CY
203.25	GRANULAR BORROW	290	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	410	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	335	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	49	T
403.209	HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	5	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	66	T
409.15	BITUMINOUS TACK COAT - APPLIED	35	G
501.231	DYNAMIC LOADING TEST	2	EA
501.50	STEEL H-BEAM PILES 89 LBS/FT, DELIVERED	540	LF
501.501	STEEL H-BEAM PILES 89 LBS/FT, IN PLACE	540	LF
501.90	PILE TIPS	10	EA
501.91	PILE SPLICES	20	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (80 CY)	1	LS
502.261	STRUCTURAL CONCRETE ROADWAY ON CONCRETE BRIDGE (41 CY)	1	LS
502.291	SAW-CUT GROOVING (1440 SF)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLABS (20 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (5 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED & DELIVERED	12570	LB
503.13	REINFORCING STEEL, PLACING	12570	LB
503.19	LOW-CARBON CHROMIUM REINFORCEMENT, FABRICATED & DELIVERED	1080	LB
503.20	LOW-CARBON CHROMIUM REINFORCEMENT, PLACING	1080	LB
507.0821	STEEL BRIDGE RAILING, 3 BAR (86 LF)	1	LS
511.07	COFFERDAM: ABUTMENT NO. 1	1	LS
511.07	COFFERDAM: ABUTMENT NO.2	1	LS
512.081	FRENCH DRAINS (90 LF)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (86 SY)	1	LS
526.301	PORTABLE CONCRETE BARRIER TYPE 1 (60 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	EA
530.30	GFRP, REINFORCEMENT BARS, FABRICATED & DELIVERED	5640	LF
530.31	GFRP, REINFORCEMENT BARS, PLACING	5640	LF
535.60	PRESTRESSED STRUCTURAL CONCRETE SLAB (98 CY)	1	LS
606.1301	31" W-BEAM GUARDRAIL MID-WAY SPLICE	37.5	LF
606.1303	W-BEAM GUARDRAIL MID-WAY SPLICE, 15' RADIUS OR LESS	50	LF
606.1722	BRIDGE TRANSITION - TYPE II	3	EA
606.1722	BRIDGE TRANSITION - TYPE II MODIFIED	1	EA
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	3	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.78	LOW VOLUME GUARDRAIL END	1	EA
607.242	REMOVE AND RESET GATEWAY	1	EA
610.16	HEAVY RIPRAP	160	CY
610.18	STONE DITCH PROTECTION	13	CY
610.214	VOID-FILLED HEAVY RIPRAP	230	CY
613.319	EROSION CONTROL BLANKET	67	SY
615.07	LOAM	8	CY
618.14	SEEDING METHOD NUMBER 2	2	UN
619.12	MULCH	2	UN
619.14	EROSION CONTROL MIX	23	CY
620.58	EROSION CONTROL GEOTEXTILE	180	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	750	LF
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	20	HR
631.11	AIR TOOL (INCLUDING OPERATOR)	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	20	HR
631.172	TRUCK - LARGE (INCLUDING OPERATION)	20	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.312	TYPE III BARRICADE	8	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	210	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	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**

- For easements, construction limits, and right of way lines, refer to the 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.
- All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- 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. Remove existing signs as shown on the Detour Sheet. The location of these signs shown are approximate. Removal of these signs will be incidental to this contract. No separate payment will be made.
- 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. 473.50 shall be Granular Borrow meeting the requirements of Standard Specifications Subsection 703.19, Granular Borrow, for Material for Underwater Backfill, with the additional requirement that the maximum particle size be limited to 4 inches.
- 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.
- 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 Pay Item 619.14, Erosion Control Mix.
- Place a 24 inch wide strip of 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 5.25 feet. Payment will be considered incidental to the guardrail pay items.
- A Low Volume Guardrail End shall be installed concurrently with the placement of each section of beam guardrail.
- 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.
- Protective Coating for Concrete Surfaces shall be applied to the following areas:  
  - All exposed surfaces of concrete curb, Fascias down to the drip notch,
  - All exposed surfaces of Concrete Transition Barriers,
  - Concrete wearing surfaces,
  - Top of abutment backwalls and wingwalls, and
  - To one foot below the ground on vertical walls against earth.
- Payment for removal and disposal of any material that is adjacent to the existing bridge and outside the limits of Structural Earth Excavation shall be considered incidental to Pay Item No. 202.19, Removing Existing Bridge.

17. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>

18. Reports on hydrology and/or hydraulics applicable to the bridge site may be accessed at the MaineDOT web address. The reports are based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

19. The project geotechnical report titled: Geotechnical Design Report, Merrills Corner Bridge No. 0714 over Shepards River, Old County Road, MaineDOT WIN 27530.00, Brownfield, Maine, prepared by Haley & Aldrich, Inc., dated October 31, 2025 may be accessed at the MaineDOT web address.

20. Geotechnical information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the Bidders' or Contractor's interpretations of, or conclusions drawn from, the geotechnical information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between the boring locations.

21. 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.

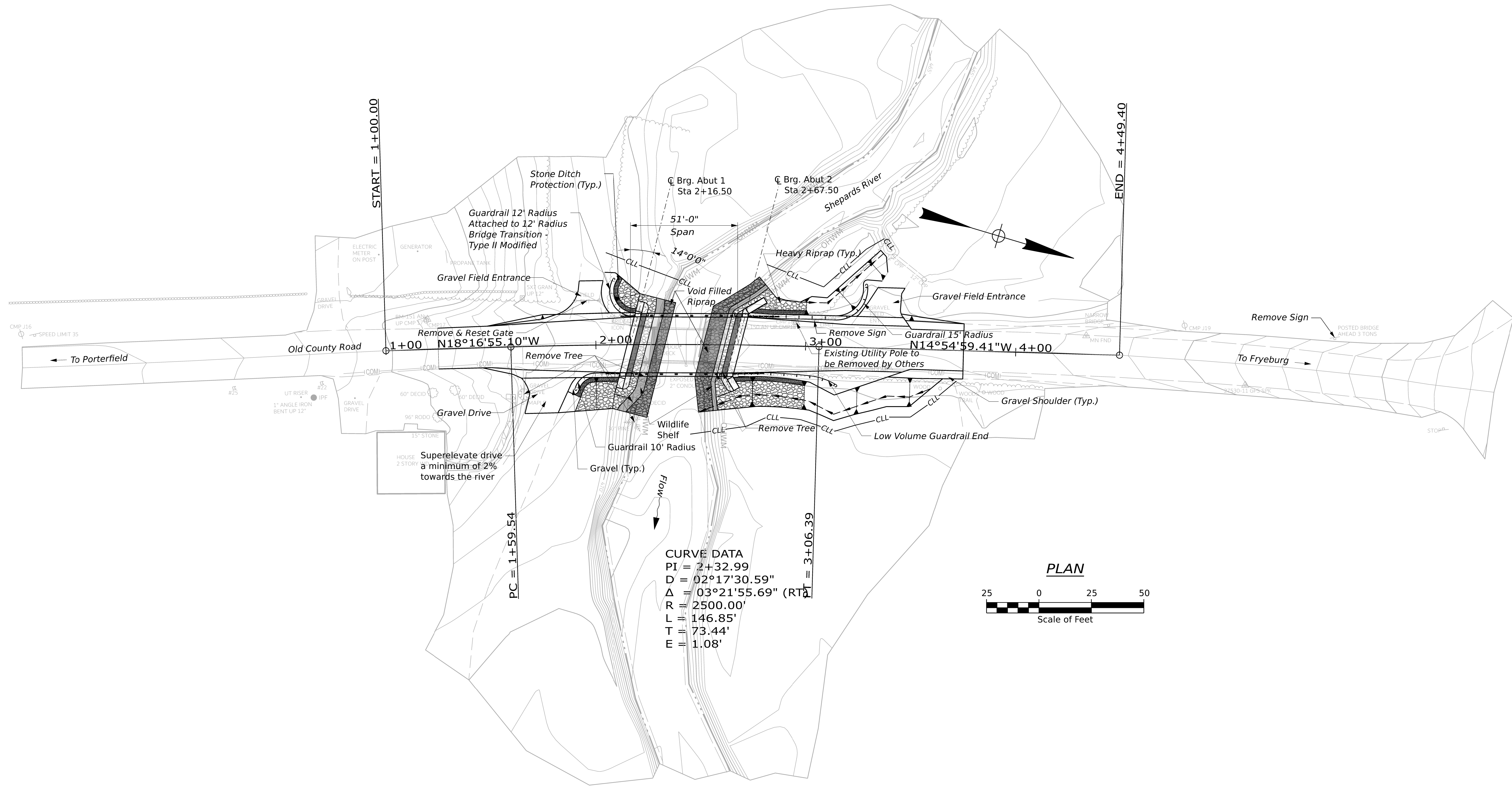
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 02753000  
WIN 027530.00

DATE: 12/2025  
BY: [Signature]  
SIGNATURE: [Signature]  
P.E. NUMBER: [Blank]  
DATE: [Blank]

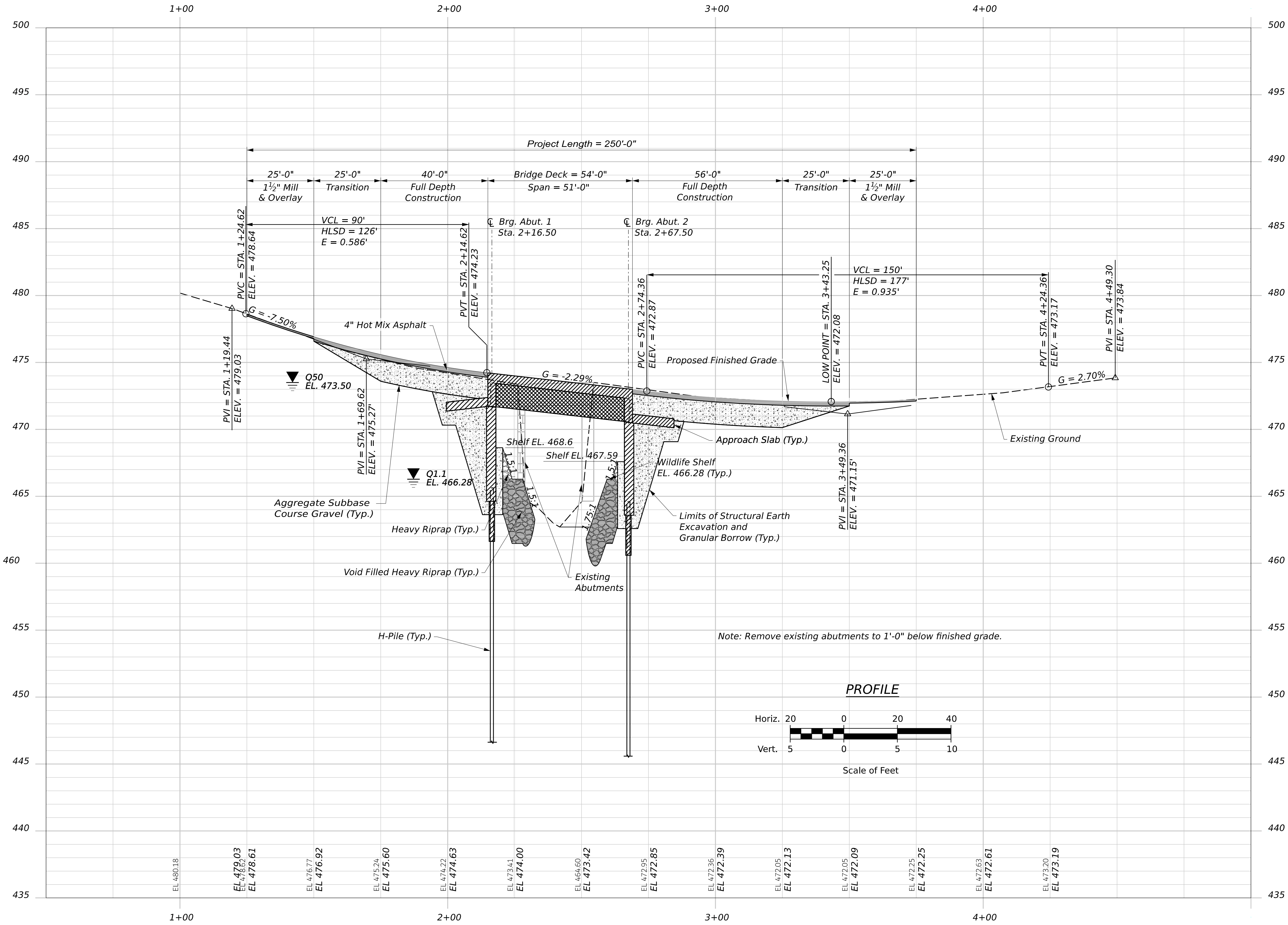
PROJ. MANAGER: JULIE BRASK  
DESIGN-DETAILED: EDB  
CHECKED-REVIEWED: GAG  
DESIGN-DETAILED: [Blank]  
REVISIONS 1: [Blank]  
REVISIONS 2: [Blank]  
REVISIONS 3: [Blank]  
REVISIONS 4: [Blank]  
FIELD CHANGES: [Blank]

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARDS RIVER  
BROWNFIELD  
**ESTIMATED QUANTITIES &  
GENERAL CONSTRUCTION NOTES**

SHEET NUMBER  
**2**  
OF 26



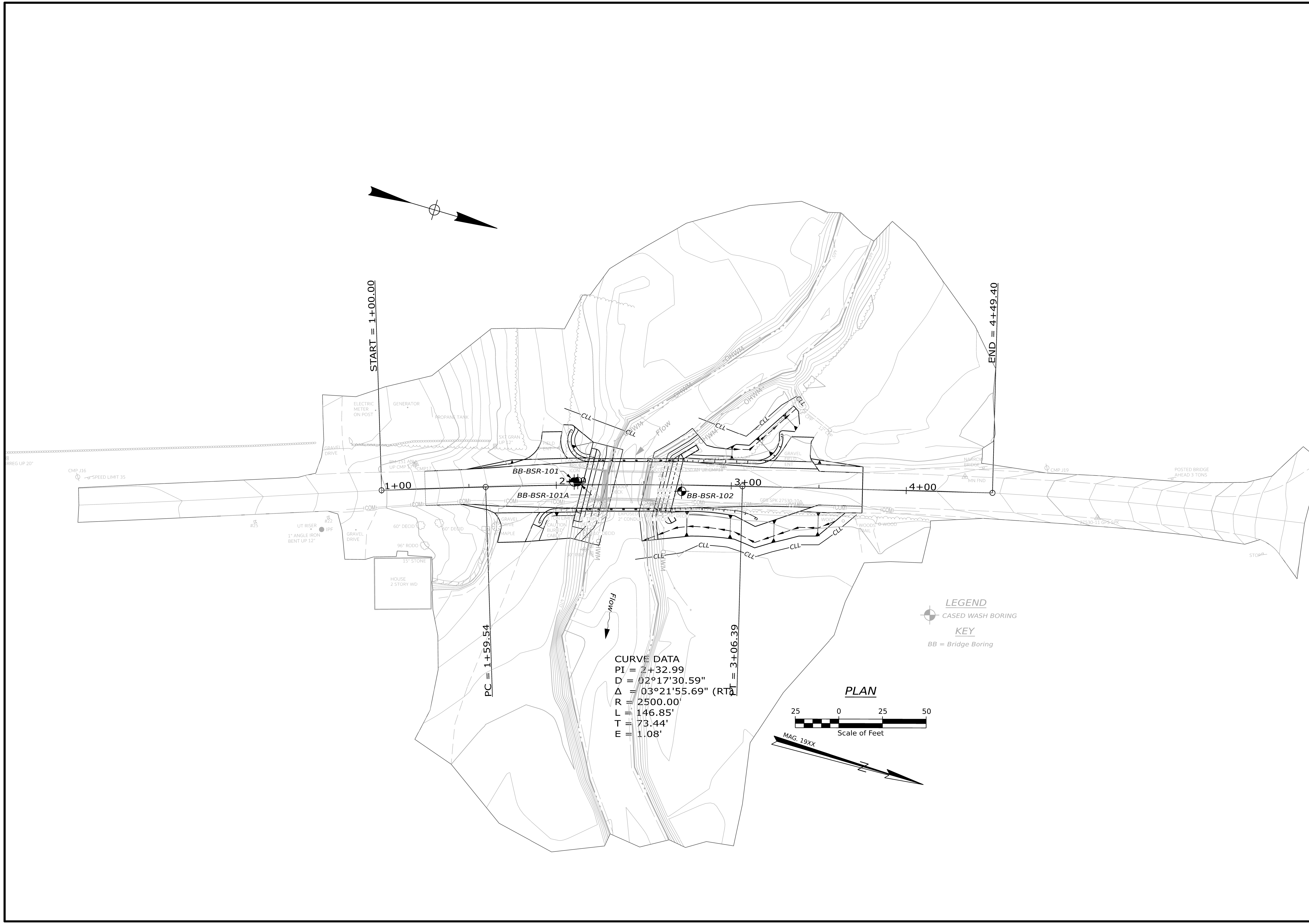
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Federal Project No. 02753000		P.E. NUMBER	
WIN 027530.00		DATE	
PROJ. MANAGER	JULIE BRASK	DATE	12/2025
DESIGN-REVIEWED	EDB	BY	WBP
CHECKED-REVIEWED	GAG	DATE	12/2025
DESIGN-DETAILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
MERRILLS CORNER BRIDGE NO. 0714 CROSSING SHEPARDS RIVER BROWNFIELD		GENERAL PLAN	
SHEET NUMBER		3	
OF 26			



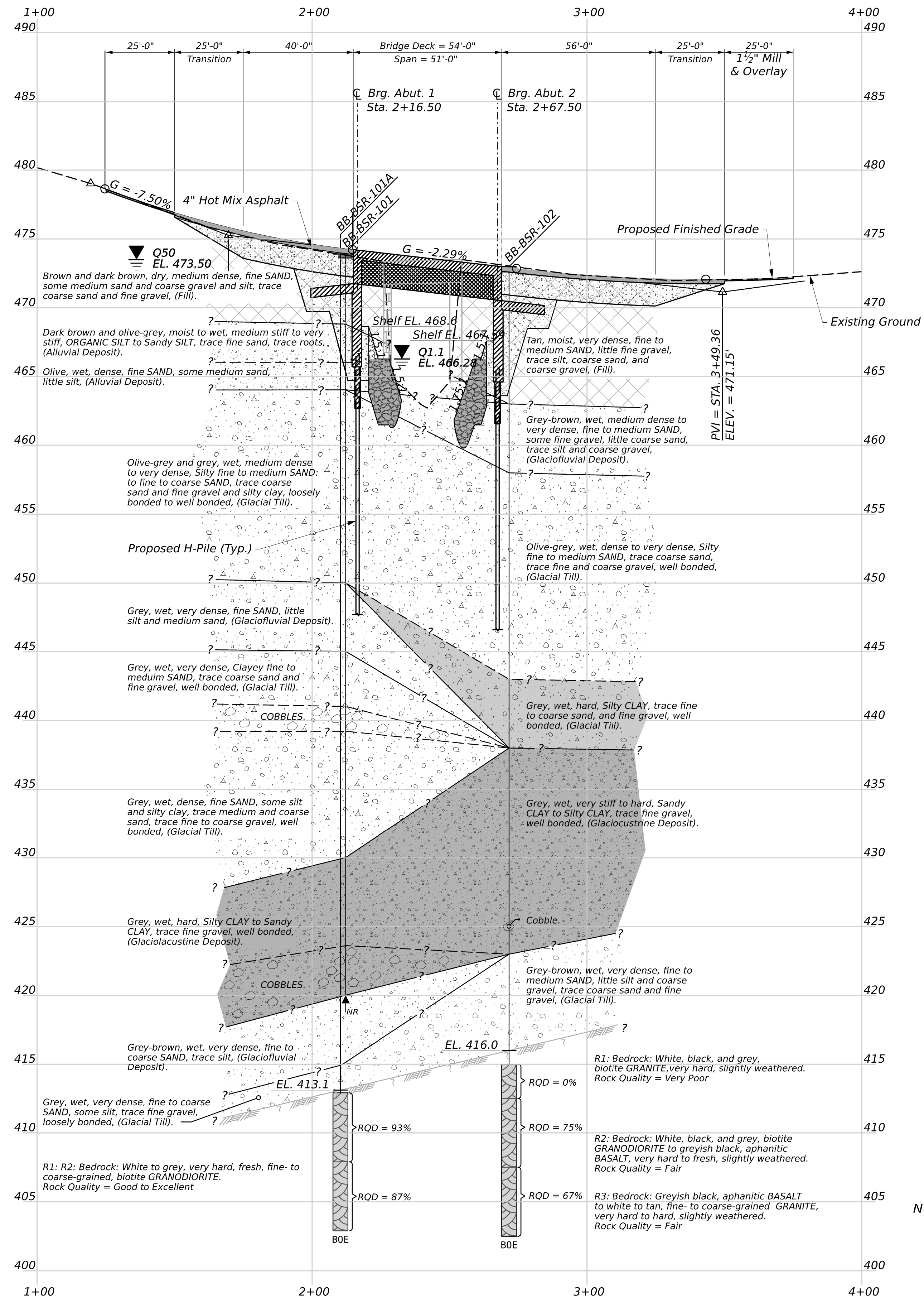
PROJ. MANAGER	JULIE BRASK	BY	DATE
DESIGN-DETAILED	EDB	EDB	12/2025
CHECKED-REVIEWED	GAG	MRP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE	P.E. NUMBER	DATE

MERRILLS CORNER BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
**PROFILE**



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		FEDERAL No. 2753000	
MERRILLS CORNER BRIDGE NO. 0714 CROSSING SHEPARD'S RIVER BROWNFIELD		BORING LOCATION PLAN	
SHEET NUMBER		5	
OF 26			
PROJ. MANAGER	JULIE BRASK	BY	EDB
DESIGN-DETAILED	EDB	DATE	10/4/2024
CHECKED-REVIEWED			
DESIGN-DETAILED	T. JONES	DATE	OCT 2025
REVISIONS 1		SIGNATURE	
REVISIONS 2		P.E. NUMBER	
REVISIONS 3		DATE	
REVISIONS 4			
FIELD CHANGES			



**LEGEND**

Weathered Bedrock, if applicable

Pavement Thickness, if applicable

Approximate Top of Bedrock

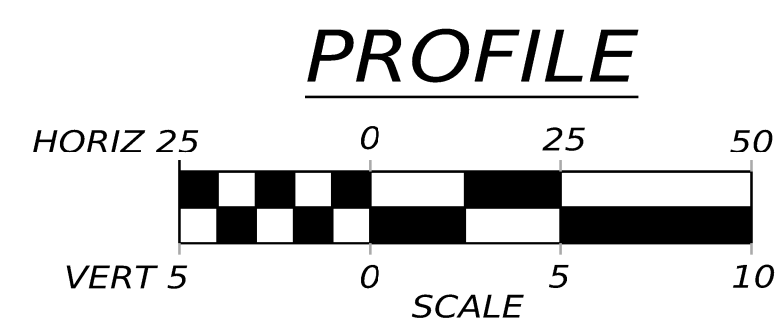
Boring No. / Offset, if shown

RQD = Rock Quality Designation of Bedrock Core Sample

BOE = Bottom of Exploration

NR = No Refusal

R = Refusal



Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	EDB				
CHECKED-REVIEWED	EDB				
DESIGN-DETAILED02	T. JONES	JAN 2025			
DESIGN-DETAILED03					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

MERRILLS CORNER BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
INTERPRETIVE SUBSURFACE PROFILE

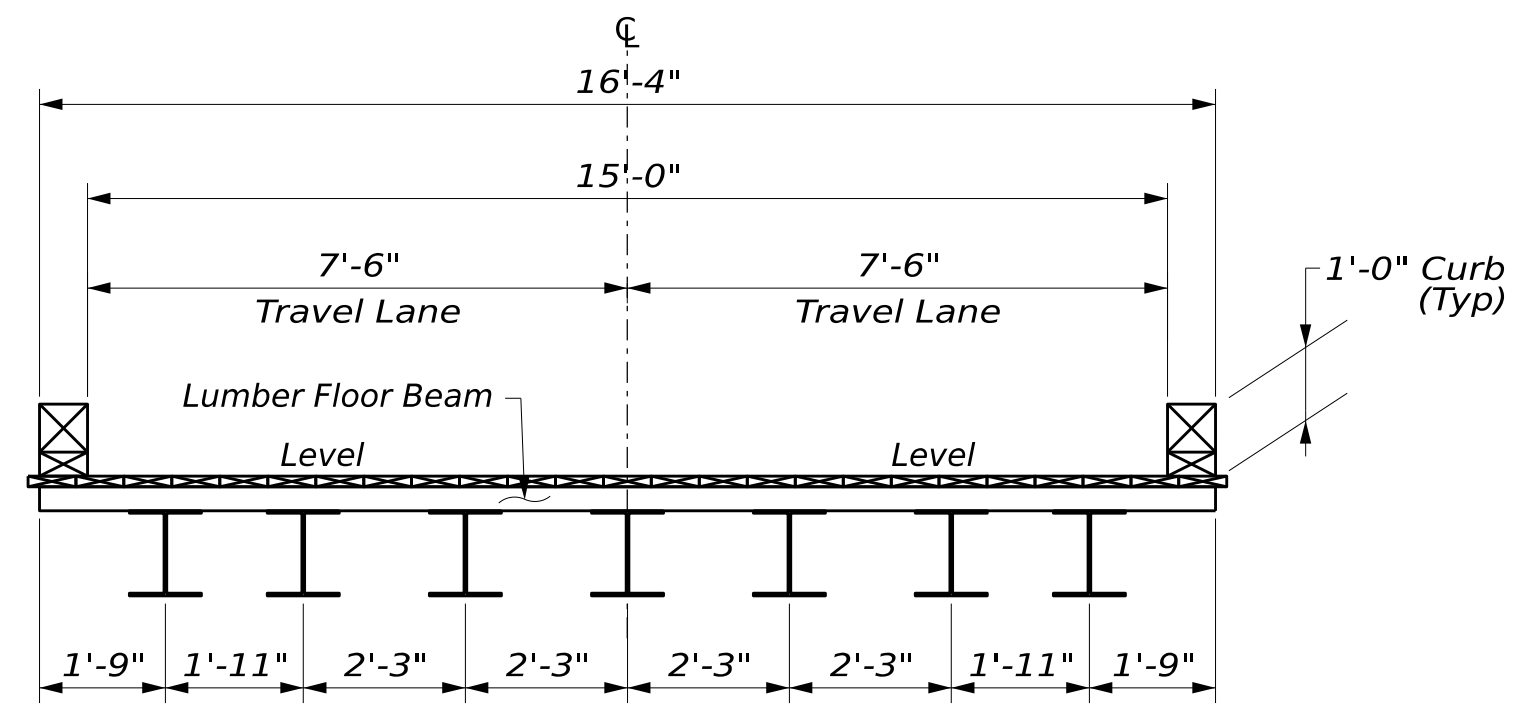
Maine Department of Transportation Soil/Bore Log Location Log US CUSTOMARY UNITS				Project: Merrills Corner Bridge No. 0714 over Shepards River Dix County Road, Brownfield, Maine				Boring No.: BB-BSR-101 WIN: 02753000							
Driller:	ManeDOT	Elevation (ft):	4739	Auger ID/OD:	5" Solid Stem										
Operator:	T. Garrett	Station:	NA/0/0	Sampler:	24" Standard Split Spoon										
Logged By:	M. Housler	Rig Type:	CHE 45C Truck	Hammer:	W/F/Fall	SI-1024/30' <td>NA/300/30'</td> <th colspan="4"></th>	NA/300/30'								
Site Start/Finish:	3/29/2024-3/29/2024	Drilling Method:	Cased Wash Boring	Core Barrel:	Core Barrel	NO-20 in ID <td colspan="4"></td>									
Boring Location:	Sta. 2+122.17 Ft. L.L.	Casing ID/OD:	NV-30 in ID	Water Level:	Not Measured										
Hammer Efficiency Factor:	0.962	Hammer Type:	Automatic	Hydraulic	Rope & Castrod										
<p>Definitions:            S = Split Spoon Sample            M = Unsuccessful Split Spoon Sample Attempt            N = Not Taken Sample            W = Unsuccessful 1st. Wet Tube Sample Attempt            V = Not Taken Sample            U = Unsuccessful Fall Vane Shear Test Attempt            H = Not Taken Sample            A = Not Taken Sample            P = Plastic Limit            L = Liquid Limit            C = Consistency Test</p>															
Depth (ft.)	Sample No.	Penetration (lb./ft.)	Sample Depth (ft.)	Time (min)	Remarks	Lab. No.	Notes	Depth (ft.)	Sample No.	Penetration (lb./ft.)	Sample Depth (ft.)	Time (min)	Remarks	Lab. No.	Notes
0	18	24/18	0.50 - 2.50	10/6/4/2	10	63A	4739	0	18	24/18	0.50 - 2.50	10/6/4/2	10	63A	4739
<p>Bituminous Concrete            Brown, dry, medium dense, fine SAND, some medium sand, little silt, trace coarse sand and fine gravel (FS).            PI: Reading = 02 gpm</p>															
5	20	24/16	4.00 - 6.00	5/9/6/5	15	24	4682	5	20	24/16	4.00 - 6.00	5/9/6/5	15	24	4682
<p>Dark brown, dry, medium dense, fine SAND, some silt and coarse gravel, little medium sand, trace fine gravel and coarse sand (FS).            PI: Reading = 02 gpm</p>															
10	30	24/22	6.00 - 8.00	1/2/2/2	4	6	18	17	30	24/22	6.00 - 8.00	1/2/2/2	4	6	18
<p>Dark brown, moist, very stiff, ORGANIC SILT, trace fine sand, trace roots, (Mussel Deposit).            PI: Reading = 02 gpm</p>															
15	40	24/12	8.00 - 10.00	6/14/14/13	28	45	36	63	40	24/12	8.00 - 10.00	6/14/14/13	28	45	36
<p>Grey, wet, dense, fine SAND, some medium sand, little silt (Mussel Deposit).            PI: Reading = 02 gpm</p>															
20	50	24/18	10.00 - 12.00	9/11/7/10	18	29	20	63	50	24/18	10.00 - 12.00	9/11/7/10	18	29	20
<p>Divergent, wet, medium dense, silty fine SAND, some medium sand, trace coarse sand and fine gravel, loosely bonded (Glaucifluvial Deposit).</p>															
25	60	24/16	12.00 - 14.00	16/23/45/42	78	125	45	61	60	24/16	12.00 - 14.00	16/23/45/42	78	125	45
<p>Grey, wet, very dense, fine to coarse SAND, little silt and gravel, trace lean clay, well bonded (Glaucifluvial Deposit).</p>															
30	80	24/16	15.00 - 22.00	11/26/32/19	58	93			80	24/16	15.00 - 22.00	11/26/32/19	58	93	
<p>Grey, wet, very dense, fine to medium SAND, some silt, trace coarse sand and fine gravel, well bonded (Glaucifluvial Deposit).</p>															
35	90	24/12	24.00 - 26.00	15/29/29/28	68	109			90	24/12	24.00 - 26.00	15/29/29/28	68	109	
<p>Grey, wet, very dense, fine SAND, little silt and medium sand (Glaucifluvial Deposit).</p>															
40	100	24/24	25.00 - 31.00	13/15/19/28	34	55			100	24/24	25.00 - 31.00	13/15/19/28	34	55	
<p>Grey, wet, very dense, silty fine to medium SAND, trace coarse sand and fine gravel, well bonded (Glaucifluvial Deposit).            Note: Drill action indicates possible cobbles from 33 to 34 ft. Open borehole from 24 to 34 ft. white sampling.</p>															
45	110	36/3	34.00 - 34.30	58/3/3					110	36/3	34.00 - 34.30	58/3/3			
<p>Grey, wet, very dense, fine to coarse SAND, little silt and silty clay, trace fine gravel, well bonded (Glaucifluvial Deposit).</p>															
50	120	24/24	39.00 - 41.00	9/12/16/23	28	45	141		120	24/24	39.00 - 41.00	9/12/16/23	28	45	141
<p>Grey, wet, dense, fine SAND, some silt and silty clay, trace medium and coarse sand, trace fine and coarse gravel, well bonded (Glaucifluvial Deposit).</p>															
55	130	24/24	44.00 - 46.00	14/21/43/35	64	103	103		130	24/24	44.00 - 46.00	14/21/43/35	64	103	103
<p>Grey, wet, hard, silty CLAY, little fine sand layers of fine silty sand, silty and sandy clay, layered depositional structure, well bonded (Glaucifluvial Deposit).</p>															
60	140	216/28	49.00 - 50.90	7/11/26/20/37	37	59	197		140	216/28	49.00 - 50.90	7/11/26/20/37	37	59	197
<p>Grey, wet, hard, sandy CLAY, trace fine gravel, well bonded (Glaucifluvial Deposit).</p>															
65	440						440		440						
<p>Note: Drilling action indicates possible cobbles from 304 to 340 ft.</p>															
70	493						493		493						
<p>Bottom of Exploration at 340 feet below ground surface. Note: Terminate boring BB-BSR-101 in Glaucifluvial Deposit. Stop at approximately 34 ft below existing ground surface due to approximately 15 ft of broken casing. Abandoned in place. Drilled boring BB-BSR-101A approximately 3 ft south of boring BB-BSR-101, see log for details.</p>															

1. Photoluminescence detector (PLD) model Honeywell HiRAE 3000 readings in parts per million (ppm).  
 2. River water level approximately 8.4 ft below bridge deck level.  
 3. DC = Organic Content

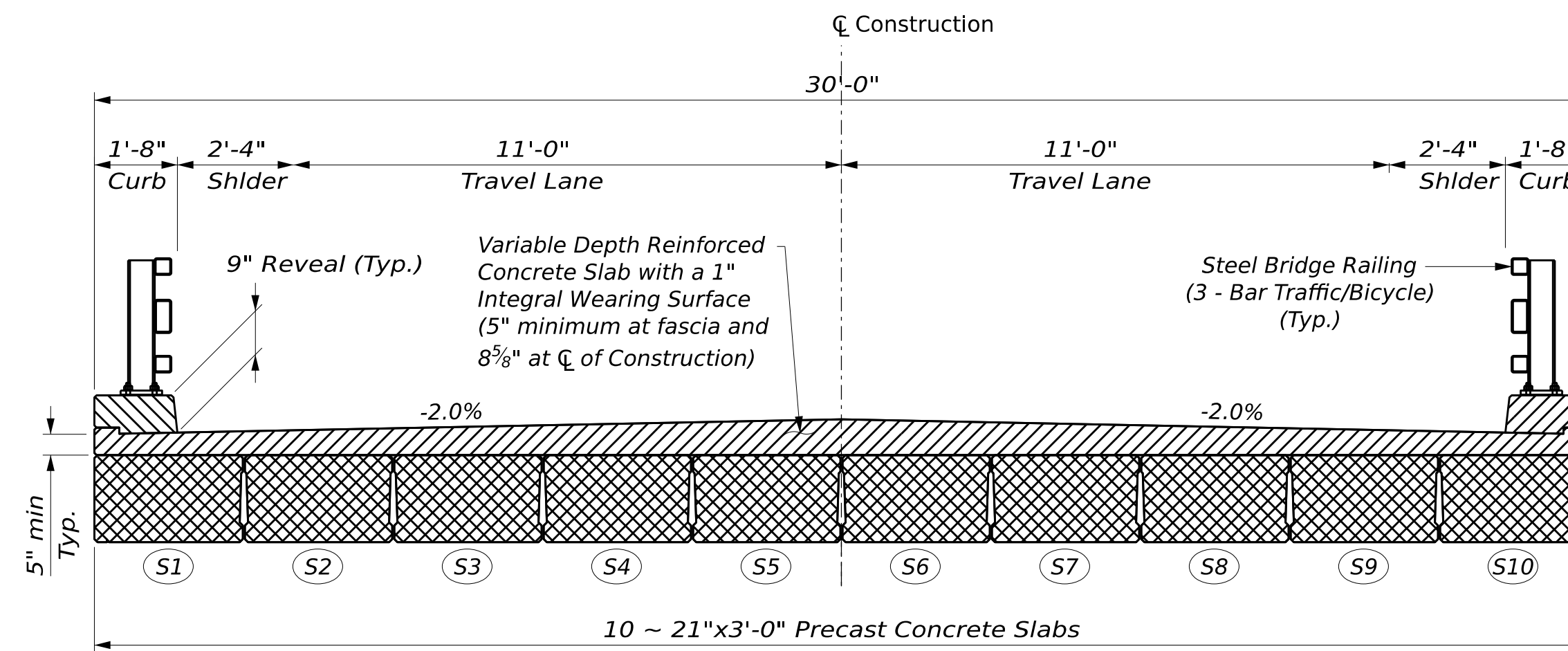
Maine Department of Transportation Soil/Bore Log Location Log US CUSTOMARY UNITS				Project: Merrills Corner Bridge No. 0714 over Shepards River Dix County Road, Brownfield, Maine				Boring No.: BB-BSR-101A WIN: 02753000							
Driller:	ManeDOT	Elevation (ft):	4739	Auger ID/OD:	5" Solid Stem										
Operator:	T. Garrett	Station:	NA/0/0	Sampler:	24" Standard Split Spoon										
Logged By:	M. Housler	Rig Type:	CHE 45C Truck	Hammer:	W/F/Fall	SI-1024/30' <td>NA/300/30'</td> <th colspan="4"></th>	NA/300/30'								
Site Start/Finish:	3/29/2024-3/29/2024	Drilling Method:	Cased Wash Boring	Core Barrel:	Core Barrel	NO-20 in ID <td colspan="4"></td>									
Boring Location:	Sta. 2+123.17 Ft. L.L.	Casing ID/OD:	NV-30 in ID	Water Level:	Not Measured										
Hammer Efficiency Factor:	0.962	Hammer Type:	Automatic	Hydraulic	Rope & Castrod										
<p>Definitions:            S = Split Spoon Sample            M = Unsuccessful Split Spoon Sample Attempt            N = Not Taken Sample            W = Unsuccessful 1st. Wet Tube Sample Attempt            V = Not Taken Sample            U = Unsuccessful Fall Vane Shear Test Attempt            H = Not Taken Sample            A = Not Taken Sample            P = Plastic Limit            L = Liquid Limit            C = Consistency Test</p>															
Depth (ft.)	Sample No.	Penetration (lb./ft.)	Sample Depth (ft.)	Time (min)	Remarks	Lab. No.	Notes	Depth (ft.)	Sample No.	Penetration (lb./ft.)	Sample Depth (ft.)	Time (min)	Remarks	Lab. No.	Notes
0	18	24/24	49.00 - 51.00	9/11/15/48	26	42	7	4243	18	24/24	49.00 - 51.00	9/11/15/48	26	42	7
<p>Grey, wet, hard, silty CLAY, little fine sand, occasional fine sand lenses, moderately plastic, well bonded (Glaucifluvial Deposit).</p>															
5	20	24/20	54.00 - 56.00	24/28/18/41	38	61	26	4193	20	24/20	54.00 - 56.00	24/28/18/41	38	61	26
<p>Grey-brown, wet, very dense, fine to coarse SAND, trace silt (Glaucifluvial Deposit).</p>															
10	30	96/3	59.00 - 59.80	50/30/37				4149	30	96/3	59.00 - 59.80	50/30/37			
<p>Grey, wet, very dense, fine to coarse SAND, some silt, trace fine gravel, loosely bonded (Glaucifluvial Deposit).</p>															
15	40	60/60	61.00 - 66.00	800 + 930				4131	40	60/60	61.00 - 66.00	800 + 930			
<p>Top of Bedrock at Elev. 431 ft.            Note: Recover 1st through bedrock from 618 to 610 ft. White to grey, fine to coarse-grained matrix (Glaucifluvial Deposit), very hard, fresh, joints horizontal to low angle, very close to moderately close, tight to open, rough, clean, fresh.            Rock Mass Quality = Excellent            Recovery = 100%            RI Core Times (insect):            61-62 ft (1:40)            62-63 ft (2:15)            63-64 ft (3:20)            64-65 ft (3:15)            65-66 ft (3:30)            Similar to #1</p>															
20	50	68/55	66.00 - 71.00	800 + 872				4131	50	68/55	66.00 - 71.00	800 + 872			
<p>Rock Mass Quality = Good            Recovery = 95%            RI Core Times (insect):            66-67 ft (2:35)            67-68 ft (2:30)            68-69 ft (2:45)            69-70 ft (2:37)            70-71 ft (3:28)</p>															
25	60							4029	60						
<p>Bottom of Exploration at 710 feet below ground surface.</p>															

1. River water level approximately 8.4 ft below bridge deck level.

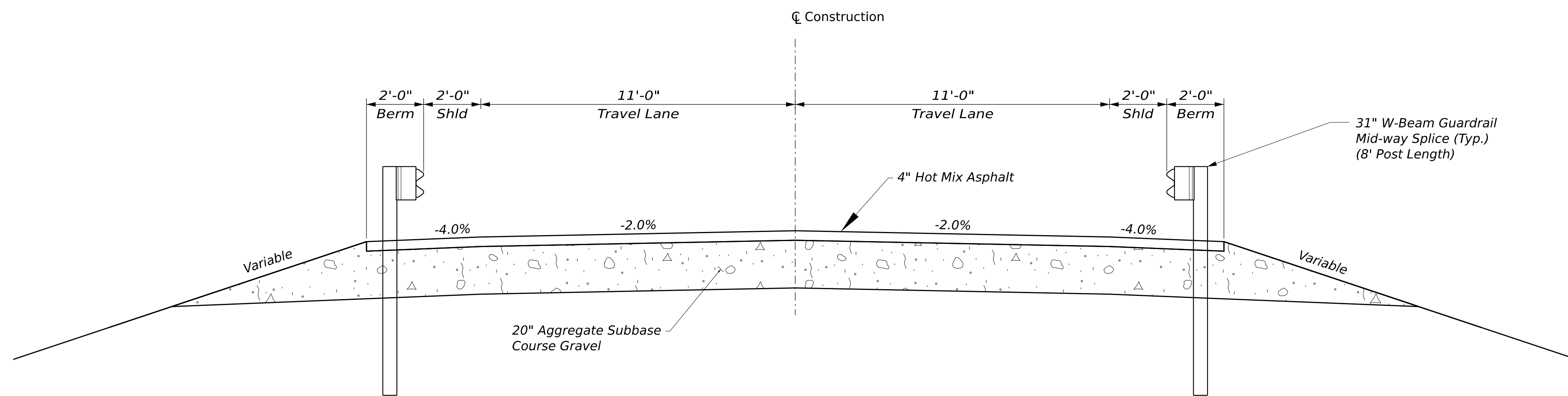
Maine Department of Transportation Soil/Bore Log Location Log US CUSTOMARY UNITS				Project: Merrills Corner Bridge No. 0714 over Shepards River Dix County Road, Brownfield, Maine				Boring No.: BB-BSR-102 WIN: 02753000							
Driller:	Seaboard Drilling, LLC	Elevation (ft):	4730	Auger ID/OD:	N/A										
Operator:	A. Williams	Station:	NA/0/0	Sampler:	Standard Split Spoon										
Logged By:	A. Williams	Rig Type:	Acme A22 Truck	Hammer:	W/F/Fall	SI-1024/30' <td>NA/300/30'</td> <th colspan="4"></th>	NA/300/30'								
Site Start/Finish:	3/29/2024-3/29/2024	Drilling Method:	Cased Wash Boring	Core Barrel:	Core Barrel	NO-20 in ID <td colspan="4"></td>									
Boring Location:	Sta. 2+717.35 Ft. R.L.	Casing ID/OD:	NV-30 in ID	Water Level:	Not Measured										
Hammer Efficiency Factor:	0.966	Hammer Type:	Automatic	Hydraulic	Rope & Castrod										
<p>Definitions:            S = Split Spoon Sample            M = Unsuccessful Split Spoon Sample Attempt            N = Not Taken Sample            W = Unsuccessful 1st. Wet Tube Sample Attempt            V = Not Taken Sample            U = Unsuccessful Fall Vane Shear Test Attempt            H = Not Taken Sample            A = Not Taken Sample            P = Plastic Limit            L = Liquid Limit            C = Consistency Test</p>															
Depth (ft.)	Sample No.	Penetration (lb./ft.)	Sample Depth (ft.)	Time (min)	Remarks	Lab. No.	Notes	Depth (ft.)	Sample No.	Penetration (lb./ft.)	Sample Depth (ft.)	Time (min)	Remarks	Lab. No.	Notes
0	10	24/11	0.00 - 2.00	29/22/29/22	42	68	19	4724	0	10	24/11	0.00 - 2.00	29/22/29/22	42	68
<p>Bituminous Concrete            Tan, moist, very dense, fine to medium SAND, little fine gravel, trace silt, coarse sand and coarse gravel (FS).            PI: Reading = 00 gpm</p>															
5	20	24/12	2.00 - 4.00	18/22/29/11	51	82	93	115	20	24/12	2.00 - 4.00	18/22/29/11	51	82	93
<p>Tan, moist, very dense, fine to medium SAND, little fine gravel, trace silt, coarse sand and coarse gravel (FS).            PI: Reading = 00 gpm</p>															
10	30	24/0	6.00 - 8.00	1/1/1/1	2	3	18	21	30	24/0	6.00 - 8.00	1/1/1/1	2	3	18
<p>Note: Recovered 6' of wood/tree root in 8 to 10 ft sample, anchors switched from HW to NW casing.</p>															
15	40	24/0	8.00 - 10.00	27/13/11/13	24	39	281	80	40	24/0	8.00 - 10.00	27/13/11/13	24	39	281
<p>Grey-brown, wet, very dense, fine to medium SAND, some fine gravel, trace coarse sand, trace silt and coarse gravel (Glaucifluvial Deposit).            PI: Reading = 00 gpm</p>															
20	50	24/0	12.00 - 13.00	27/21/23/27	44	71	115	339	50	24/0	12.00 - 13.00	27/21/23/27	44	71	115
<p>Grey-brown, wet, medium dense, fine to medium SAND, some fine gravel, little coarse sand, trace silt and coarse gravel (Glaucifluvial Deposit).</p>															
25	60	24/0	12.00 - 14.00	7/6/7/8	12	19	18	43	60	24/0	12.00 - 14.00	7/6/7/8	12	19	18
<p>Grey-brown, wet, medium dense, fine to medium SAND, trace coarse sand, trace fine and coarse gravel (Glaucifluvial Deposit).</p>															
30	70	24/0	14.00 - 15.00	9/11/50/50/37	61	98	58	26	70	24/0	14.00 - 15.00	9/11/50/50/37	61	98	58
<p>Note: Washed ahead of casing from 14 to 42 ft.</p>															
35	80	24/24	16.00 - 18.00	2/17/25/26	42	68	47	37	80	24/24	16.00 - 18.00	2/17/25/26	42	68	47
<p>Divergent, wet, very dense, silty fine to medium SAND, trace coarse sand, trace fine and coarse gravel, well bonded (Glaucifluvial Deposit).</p>															
40	90	24/24	20.00 - 22.00	19/25/29/30	54	87	32	36	90	24/24	20.00 - 22.00	19/25/29/30	54	87	32
<p>Divergent, wet, very dense, silty fine to medium SAND, trace coarse sand, trace lean clay, trace fine gravel, well bonded.</p>															
45	100	24/24	25.00 - 27.00	7/0/15/20	25	40	32	34	100	24/24	25.00 - 27.00	7/0/15/20	25	40	32
<p>Divergent, wet, dense, silty fine to medium SAND, trace coarse sand and fine gravel, well bonded (Glaucifluvial Deposit).</p>															
50	110	24/24	30.00 - 32.00	12/13/17/20	30	40	31	28	110	24/24	30.00 - 32.00	12/13/17/20	30	40	31
<p>Grey, wet, hard, silty CLAY, trace fine to coarse sand and fine gravel, well bonded (Glaucifluvial Deposit).</p>															
55	120	24/24	35.00 - 37.00	6/8/6/12	14	23	27	23	120	24/24	35.00 - 37.00	6/8/6/12	14	23	27
<p>Grey, wet, very stiff, sandy CLAY, trace fine gravel, well bonded (Glaucifluvial Deposit).</p>															
60	130	24/24	40.00 - 42.00	6/7/8/16	15	24	42	147	130	24/24	40.00 - 42.00	6/7/8/16	15	24	42
<p>Grey, wet, very stiff, silty CLAY, little silt, trace fine and medium sand (Glaucifluvial Deposit).            Note: Washed ahead of casing from 45 to 37 ft.</p>															
65	140	48/5	50.00 - 51.40	50/47			105	147	140	48/5	50.00 - 51.40	50/47			105
<p>Grey-brown, wet, very dense, fine SAND, little silt, trace medium and coarse sand, trace fine gravel, (Glaucifluvial Deposit).</p>															
70	150	84/6	55.00 - 57.70	50/50/27			84	157	150	84/6	55.00 - 57.70	50/50/27			84
<p>Grey-brown, wet, very dense, fine to medium SAND, little coarse gravel, trace coarse sand, trace fine gravel, trace silt (Glaucifluvial Deposit).</p>															
75	160	30/17	58.00 - 61.50	800 + 82			86	160	30/17	58.00 - 61.50	800 + 82			86	
<p>Top of Bedrock at Elev. 410 ft.            Note: Recover 1st used through bedrock from 57 to 50 ft. White, black, and grey, blocky GRANITE, very hard, slightly weathered, joints horizontal, very close to close, rough, planar, slightly weathered, open.            Rock Mass Quality = Very Poor            Recovery = 27%            RI Core Times (insect):            58-59 ft (2:20)            59-60 ft (1:50)            60-61 ft (2:10)            White, black, and grey, blocky GRANITE, very hard, slightly weathered, joints horizontal, very close to moderately close, rough, planar, slightly weathered, tight to open.            AT 62.7 ft transitions to greyish black, aphanitic, BASALT, very hard, fresh, joints horizontal to low angle, very close to close, rough, planar, slightly weathered, open.            Recovery = 100%            RI Core Times (insect):            62-63 ft (1:40)            63-64 ft (1:50)            64-65 ft (1:50)            65-66 ft (1:50)            Similar to #1</p>															
80	170	60/55	65.00 - 70.50	800 + 67X			84	160	60/55	65.00 - 70.50	800 + 67X			84	
<p>Rock Mass Quality = Fair            Recovery = 100%            RI Core Times (insect):            65-66 ft (1:50)            66-67 ft (1:50)            67-68 ft (1:50)            68-69 ft (1:50)            69-70 ft (1:50)</p>															
85	180	60/55	65.00 - 70.50	800 + 67X			84	160	60/55	65.00 - 70.50	800 + 67X			84	



EXISTING BRIDGE SECTION



PROPOSED BRIDGE SECTION



TYPICAL APPROACH SECTION

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 02753000  
WIN 027530.00

SIGNATURE  
P.E. NUMBER  
DATE

PROJ. MANAGER	JULIE BRASK	BY	DATE
DESIGN-DETAILED	EDB	EDB	12/2025
CHECKED-REVIEWED	GAG	MHP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
TYPICAL SECTIONS

SHEET NUMBER

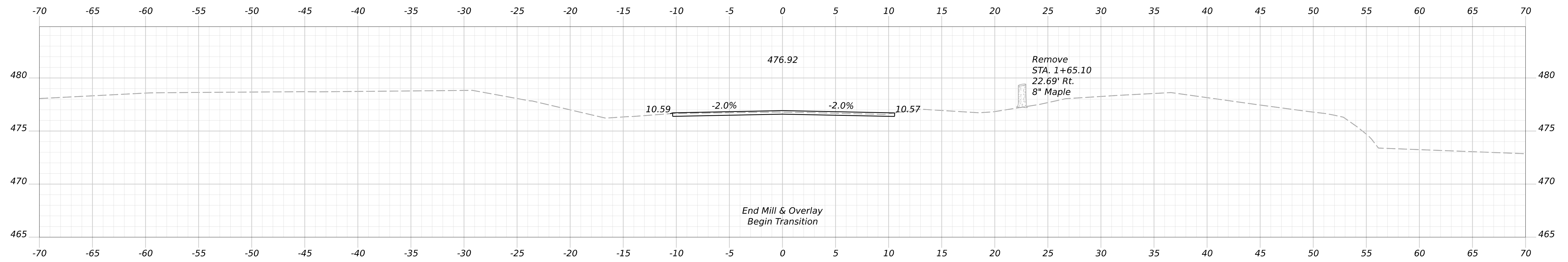
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OF 26

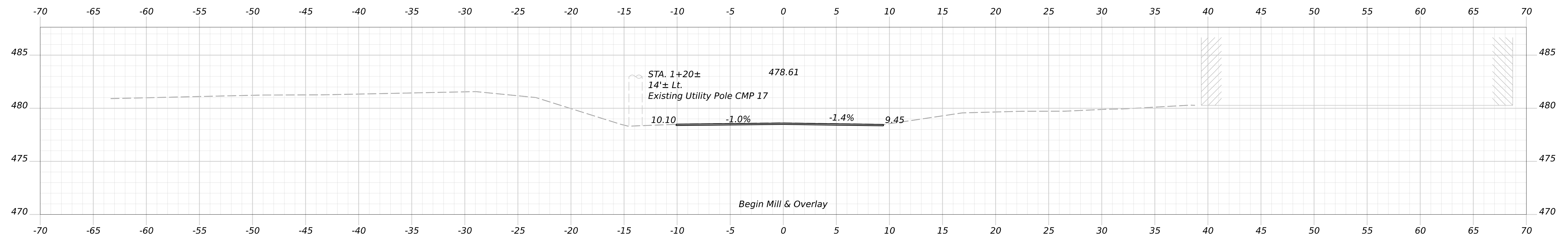
Date: 12/3/2025

Username: Erin.Brewer

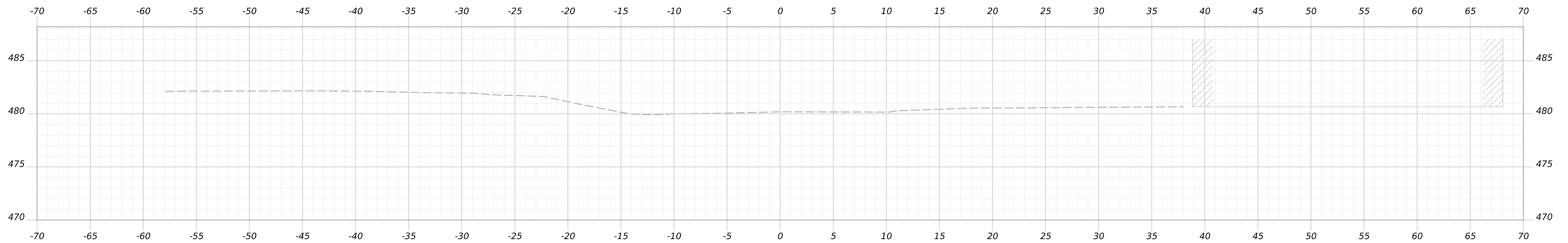
Username: Erin Brewer Date: 12/3/2025



1+50.00



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1+00.00

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 027530.00

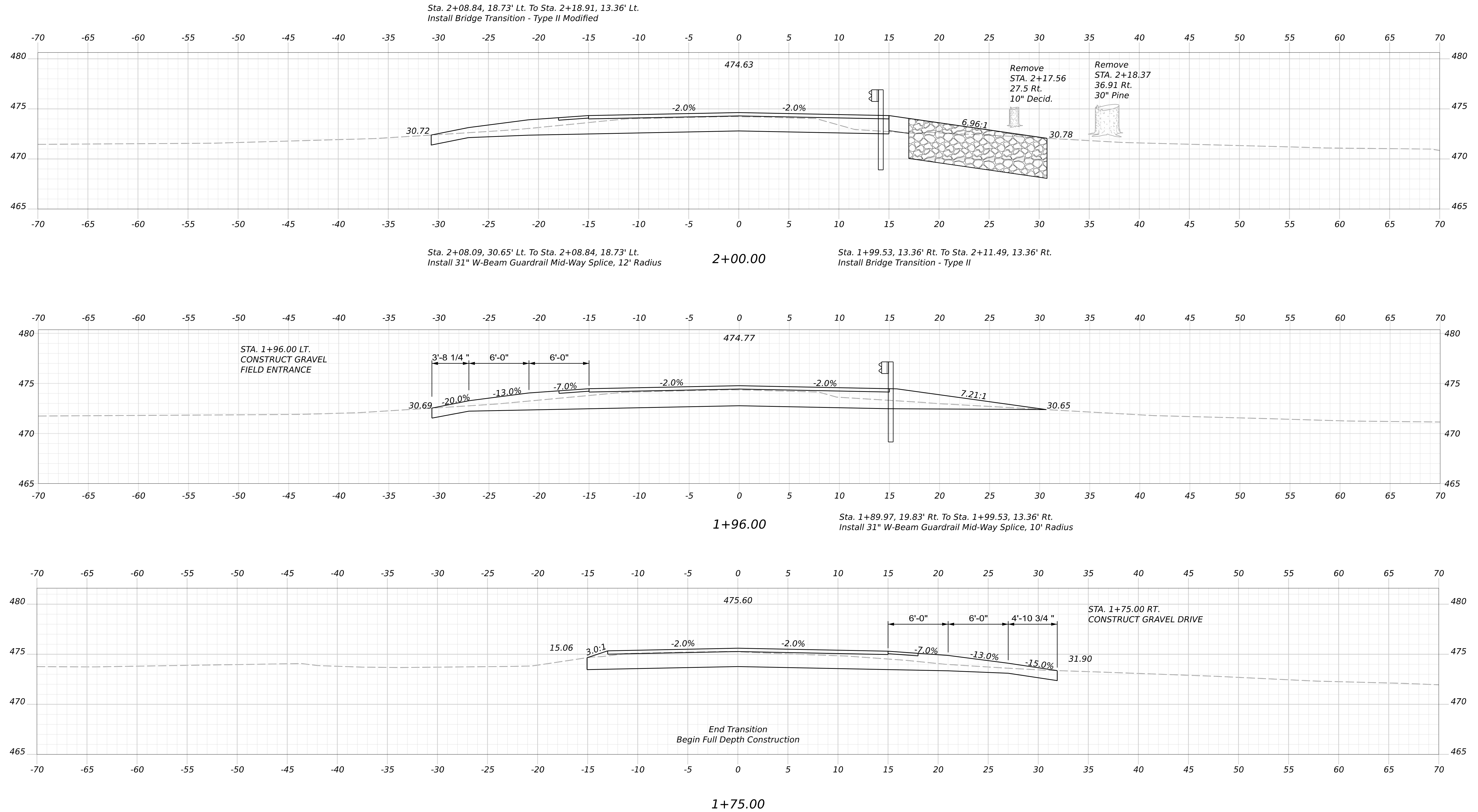
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DATE

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CHECKED-REVIEWED	GAG	MHP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
CROSS SECTIONS

SHEET NUMBER  
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OF 26

Username: Erin Brewer Date: 12/3/2025



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 Federal Project No. 027530.00

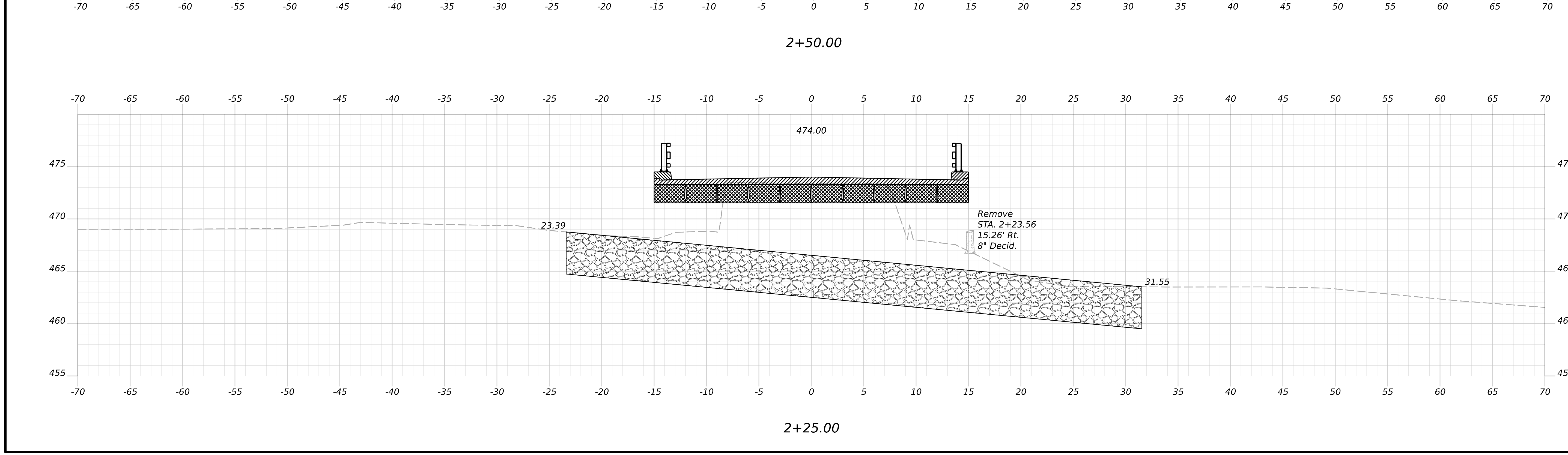
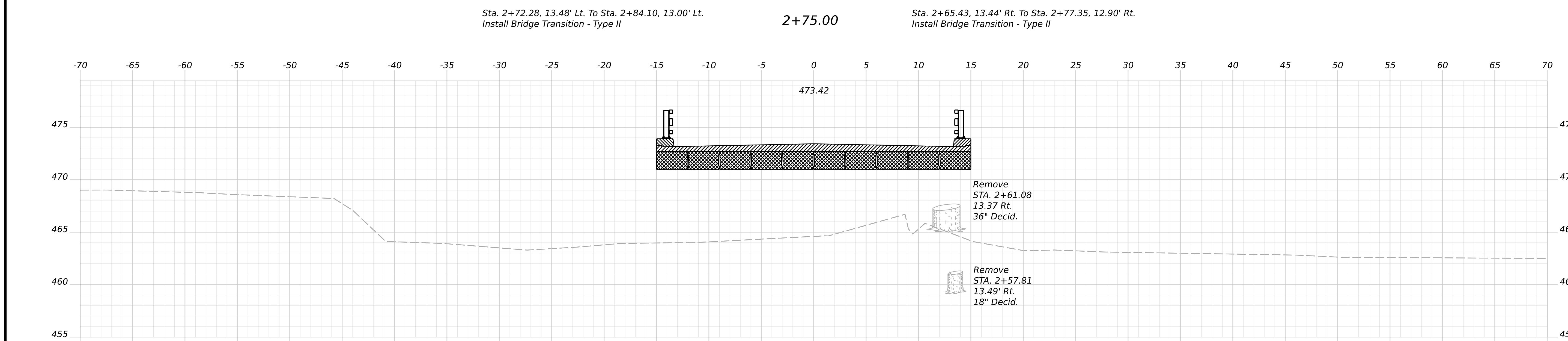
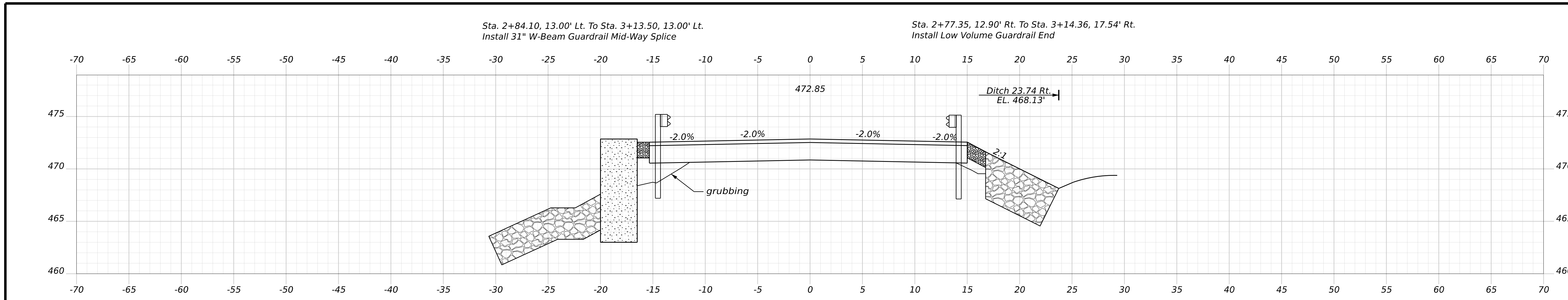
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DESIGN-REVIEWED			
DESIGN-REVIEWED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE NO. 0714  
 CROSSING SHEPARD'S RIVER  
 BROWNFIELD  
 CROSS SECTIONS

SHEET NUMBER  
**10**  
 OF 26

Username: Erin Brewer Date: 12/3/2025



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 027530.00  
WIN 027530.00

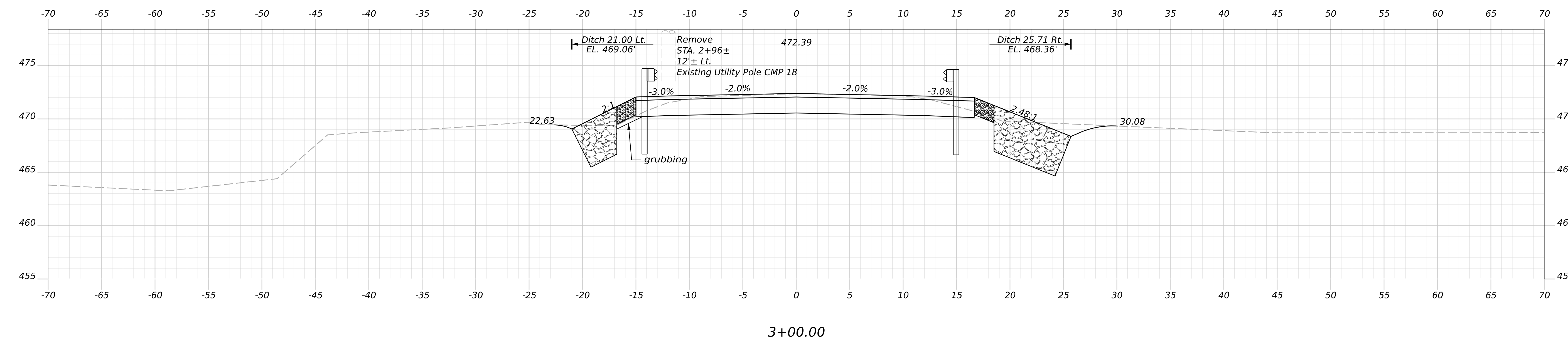
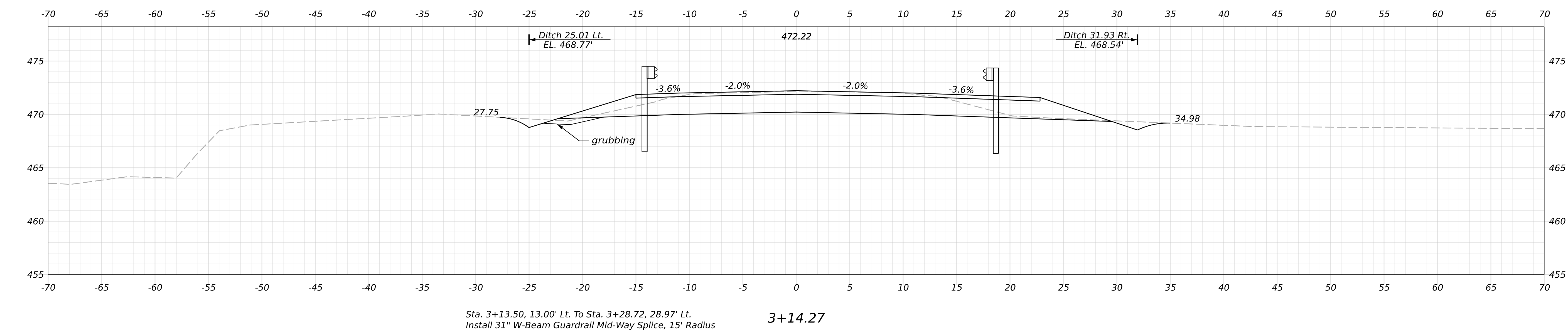
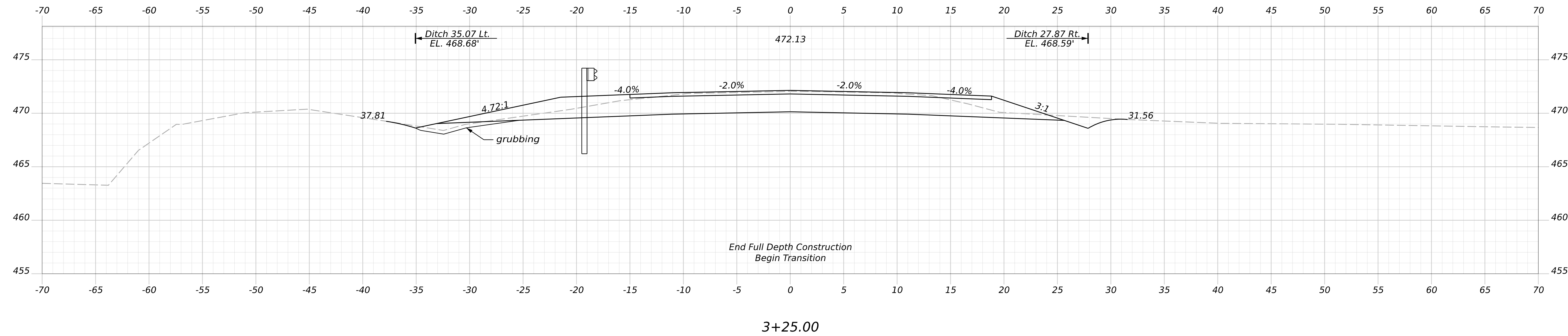
MERRILLS CORNER BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD

CROSS SECTIONS

PROJ. MANAGER	CHECKED-REVIEWED	DESIGN-REVIEWED	DATE
JULIE BRASK	EDB	GAG	12/2025
	EDB	MRP	12/2025

SIGNATURE	P.E. NUMBER	DATE

SHEET NUMBER  
**11**  
OF 26



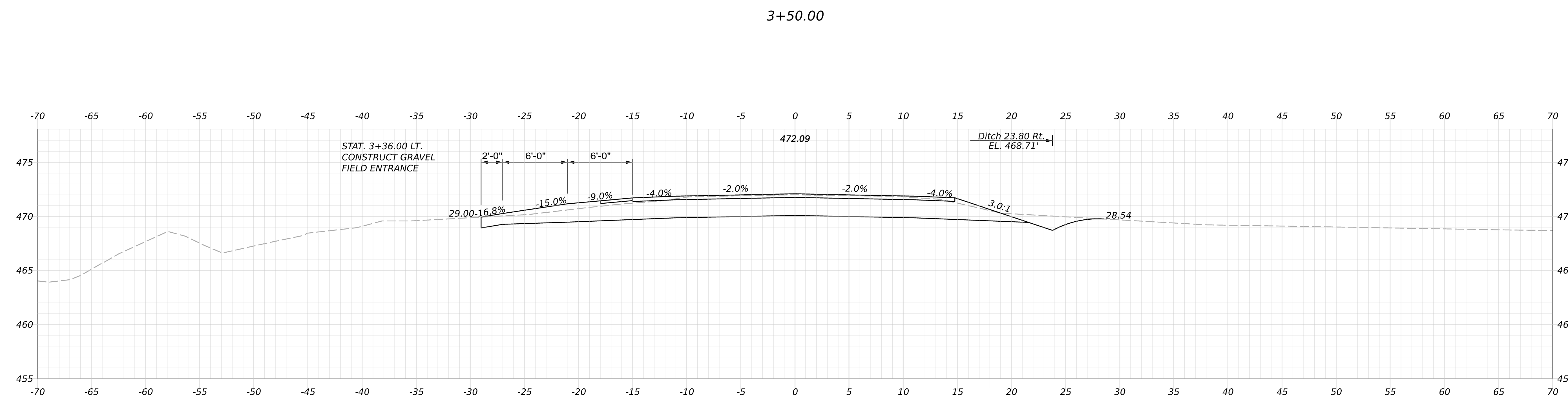
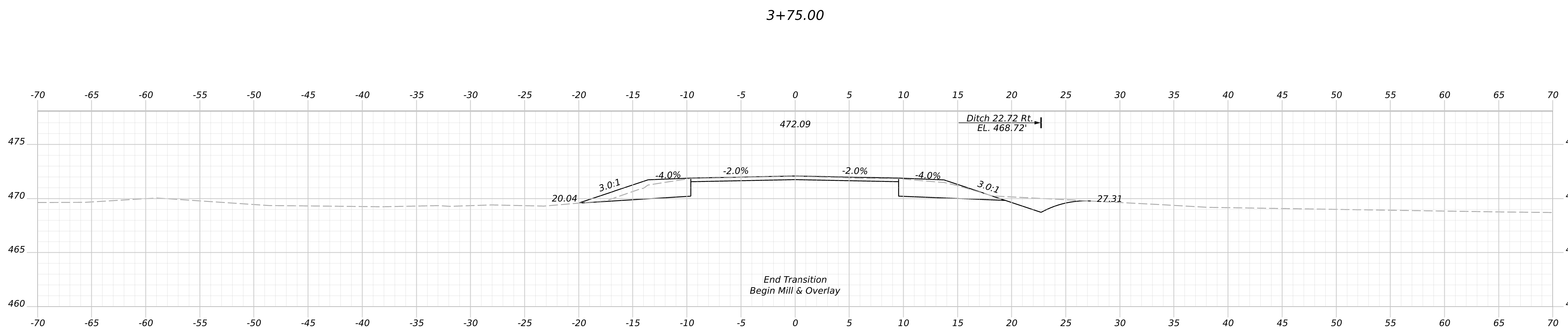
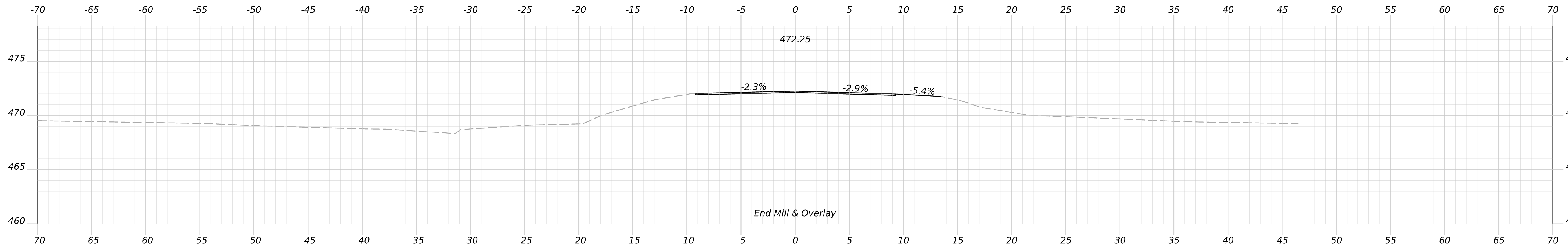
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DEPARTMENT OF TRANSPORTATION  
Federal Project No. 027530.00  
WIN 027530.00

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
JULIE BRASK	EDB	MBP	GAG					
DATE	12/2025	12/2025						
BY								
SIGNATURE								
P.E. NUMBER								
DATE								

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
CROSS SECTIONS

SHEET NUMBER  
**12**  
OF 26

Username: ErinBrewer Date: 12/3/2025



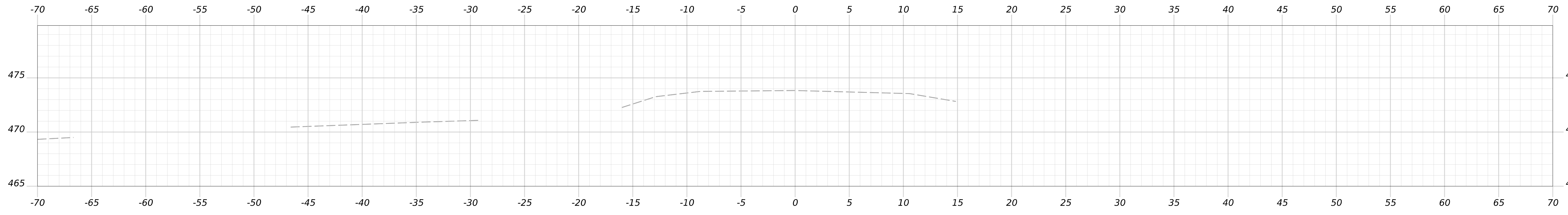
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Federal Project No. 027530.00  
WIN 027530.00

PROJ. MANAGER	DESIGN-DETAILED	CHECKED-REVIEWED	DESIGN-DETAILED02	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
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BY	EDB	WBP						
DATE	12/2025	12/2025						
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P.E. NUMBER								
DATE								

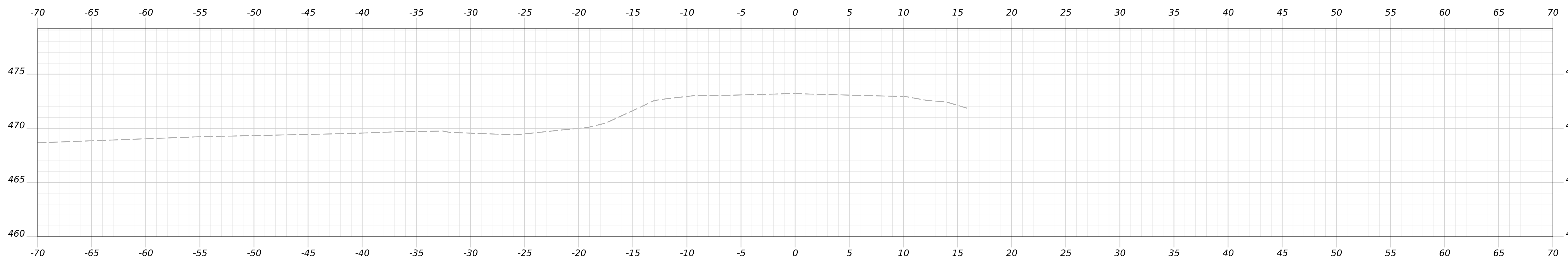
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CROSSING SHEPARD'S RIVER  
BROWNFIELD  
CROSS SECTIONS

SHEET NUMBER  
**13**  
OF 26

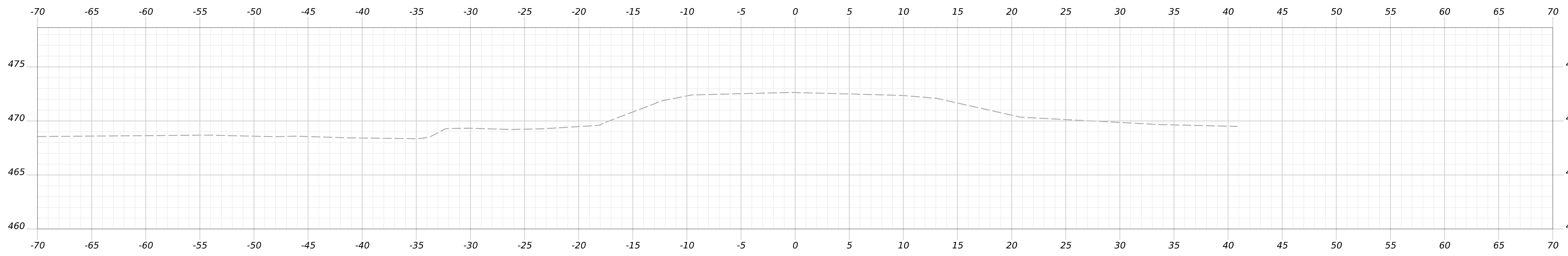
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4+49.00



4+25.00



4+00.00

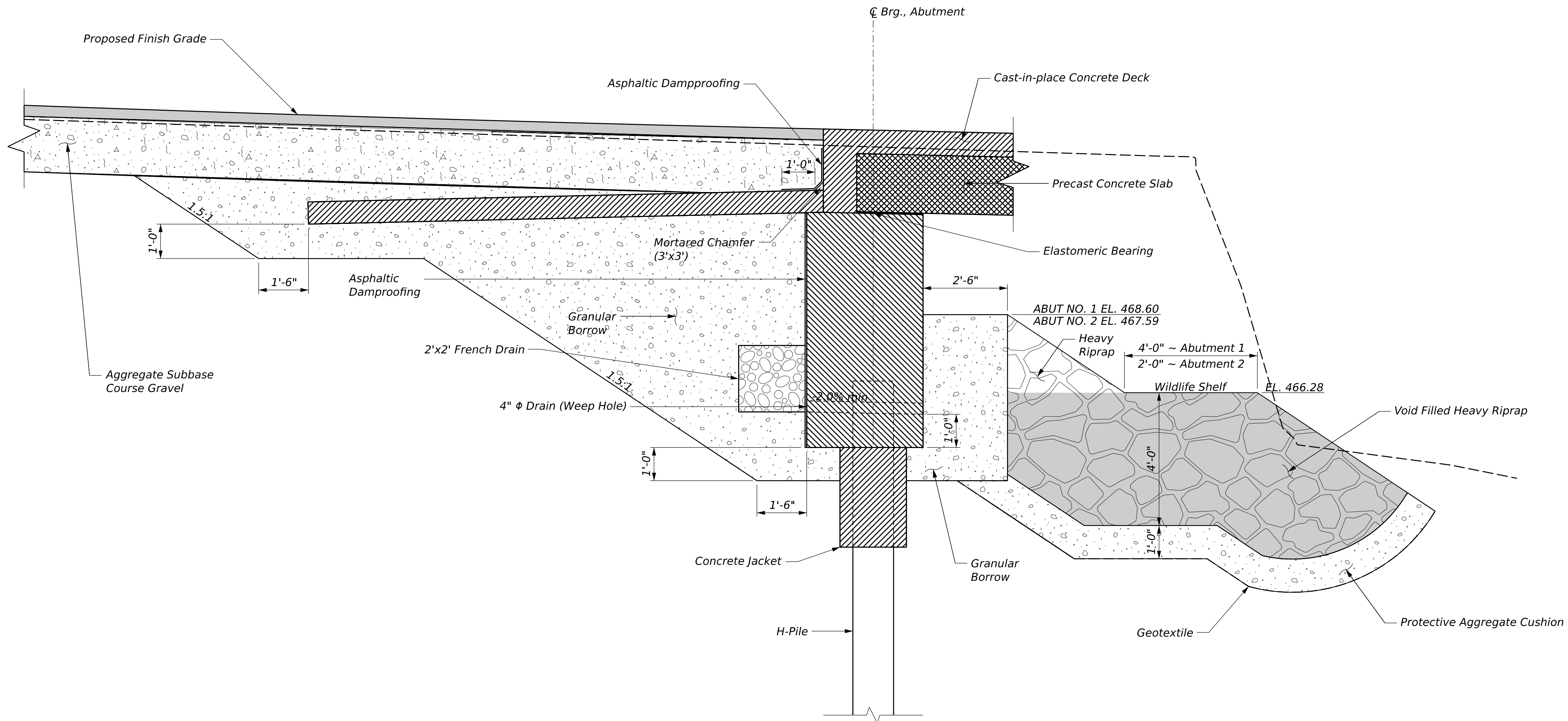
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 027530.00  
WIN 027530.00

SIGNATURE  
P.E. NUMBER  
DATE

PROJ. MANAGER	JULIE BRASQ	BY	DATE
DESIGN-DETAILED	EDB	EDB	12/2025
CHECKED-REVIEWED	GAG	MRP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
CROSS SECTIONS

SHEET NUMBER  
**14**  
OF 26



**ABUTMENT BACKFILL DETAIL**  
 Abutment No. 1 shown, Abutment No. 2 similar.

**NOTES:**

1. Payment for mortared chamfer at approach slabs shall not be paid for directly, but shall be considered incidental to related Contract Items.
2. Asphalt Dampproofing shall meet the requirements of either ASTM D449 Type II, ASTM D1227 Type II-Class I, or ASTM D1227 Type III-Class I. The product shall be applied in accordance with the manufacturer's recommendations.
3. Asphalt Dampproofing shall be applied to the backside of the wingwalls up to 1 foot below grade.
4. Payment for Asphalt Dampproofing will not be made directly, but will be considered incidental to related Contract Items.

Date: 12/3/2025

Username: Erin.Brewer

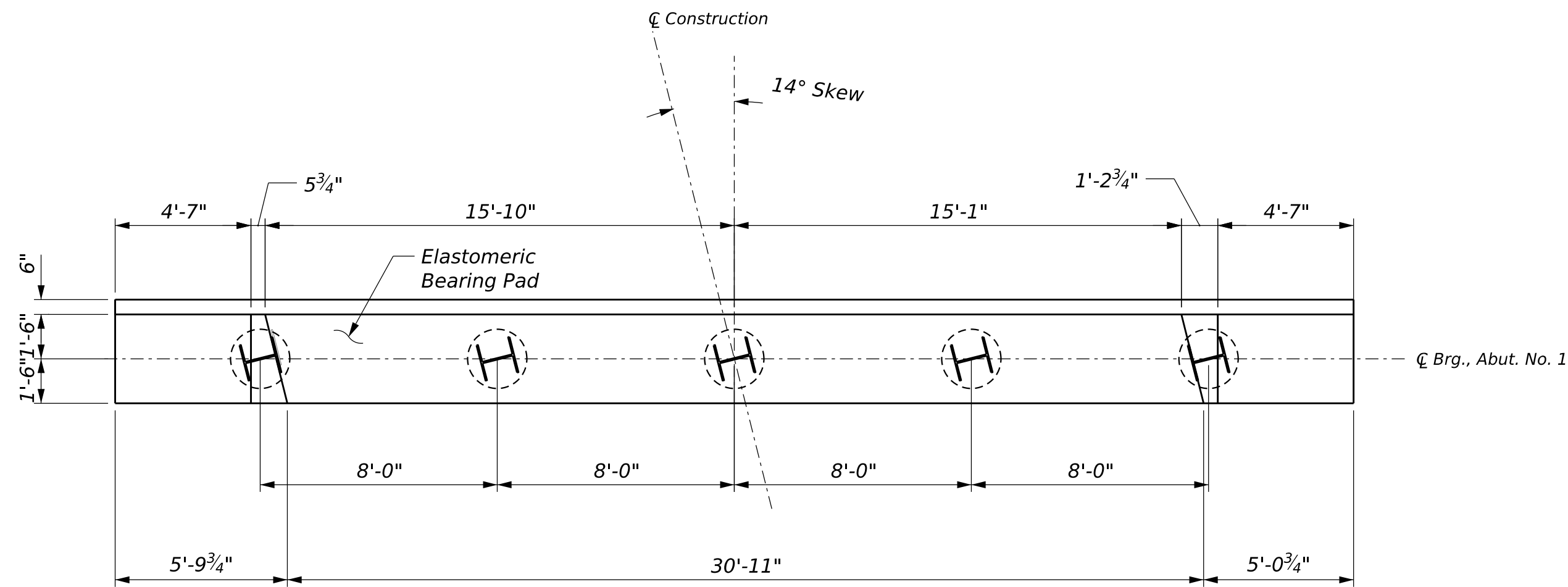
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REVISIONS 1				
REVISIONS 2				
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FIELD CHANGES				

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
 CROSSING SHEPARD'S RIVER  
 BROWNFIELD

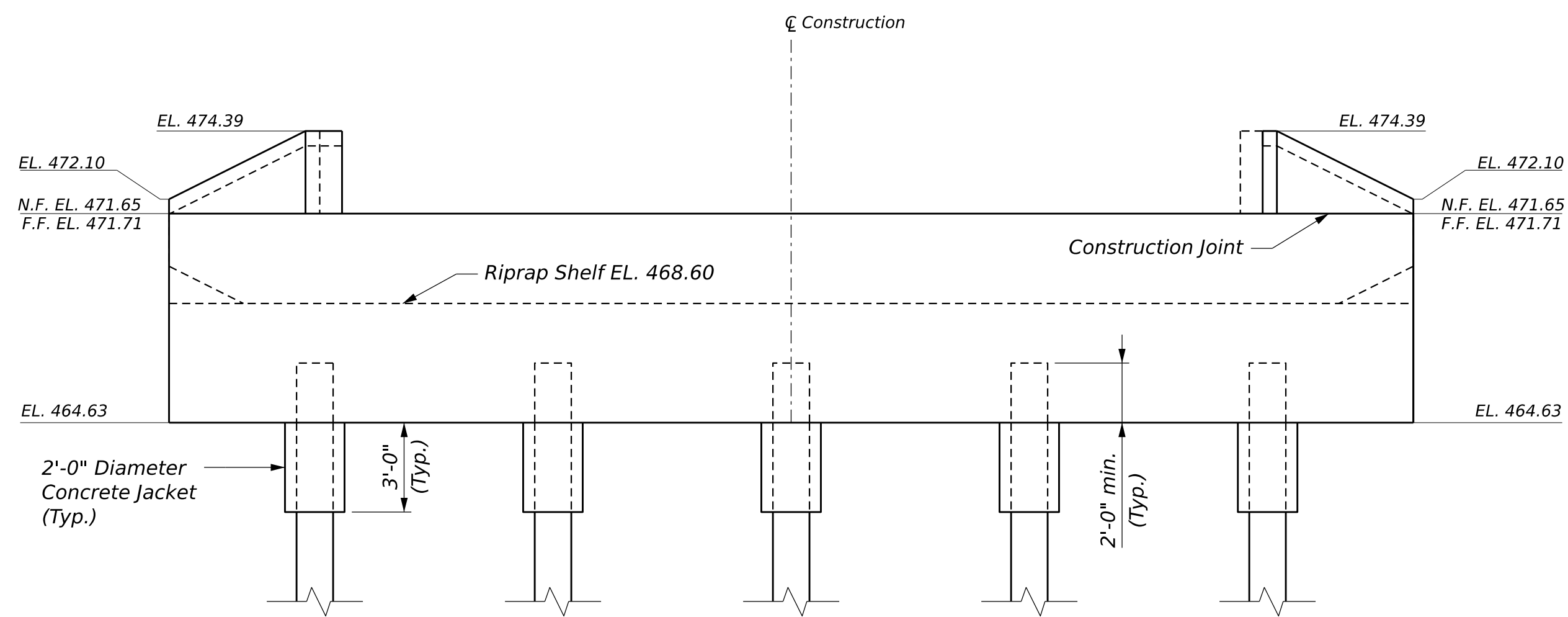
SHEET NUMBER  
**15**  
 OF 26

ABUTMENT DETAILS

WIN 027530.00



**ABUTMENT NO. 1 PLAN**



**ABUTMENT NO. 1 ELEVATION**

**ABUTMENT NOTES**

1. Structural Earth Excavation required more than 12 inches below the bottom of the structure will be paid for in accordance with Standard Specifications Section 206, Structural Excavation.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Place drains with a 4-inch diameter in the breastwall and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.
4. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
5. Place the parapet portions of the wingwalls after erection of the precast units.
6. Payment for the concrete jackets around the tops of the H-piles will not be paid for directly but will be considered incidental to Pay Item 502.219 Structural Concrete Abutments and Retaining Walls. Fill Concrete may be used for the concrete jackets.

**PILE NOTES**

1. The maximum factored pile load is 263 kips at the Strength I Limit State.
  2. Piles shall be driven to the required nominal resistance on or within bedrock in accordance with Standard Specification Section 501.
  3. Estimate of piles required:
    - Abutment No. 1: 5 ~ HP 14x89 @ 56 feet
    - Abutment No. 2: 5 ~ HP 14x89 @ 52 feet
- The order lengths of the piles shall include an additional 5 feet of length for each test pile to accommodate dynamic pile testing equipment.
4. H-pile material shall be ASTM A572, Grade 50.
  5. H-pile splices shall be in accordance with Standard Detail 501(03).
  6. All piles shall be equipped with a pile tip in accordance with Standard Specifications Subsections 501.048 , Prefabricated Pile Tips and 711.10 H-Beam Piles, Spliced and Tips.
  7. Piles shall not be out of position shown by more than 2 inches in any direction.
  8. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times F<sub>y</sub>. The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system.
  9. The Contractor shall perform one dynamic load test per abutment with 24-hour (minimum) restrrike tests to confirm the nominal resistance of the piles. The required nominal resistance for the pile is the maximum factored Strength I Limit State pile load divided by a resistance factor of 0.65 per LRFD Specifications. The dynamic test shall be performed on the first production pile driven at each abutment.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 02753000

SIGNATURE  
P.E. NUMBER  
DATE

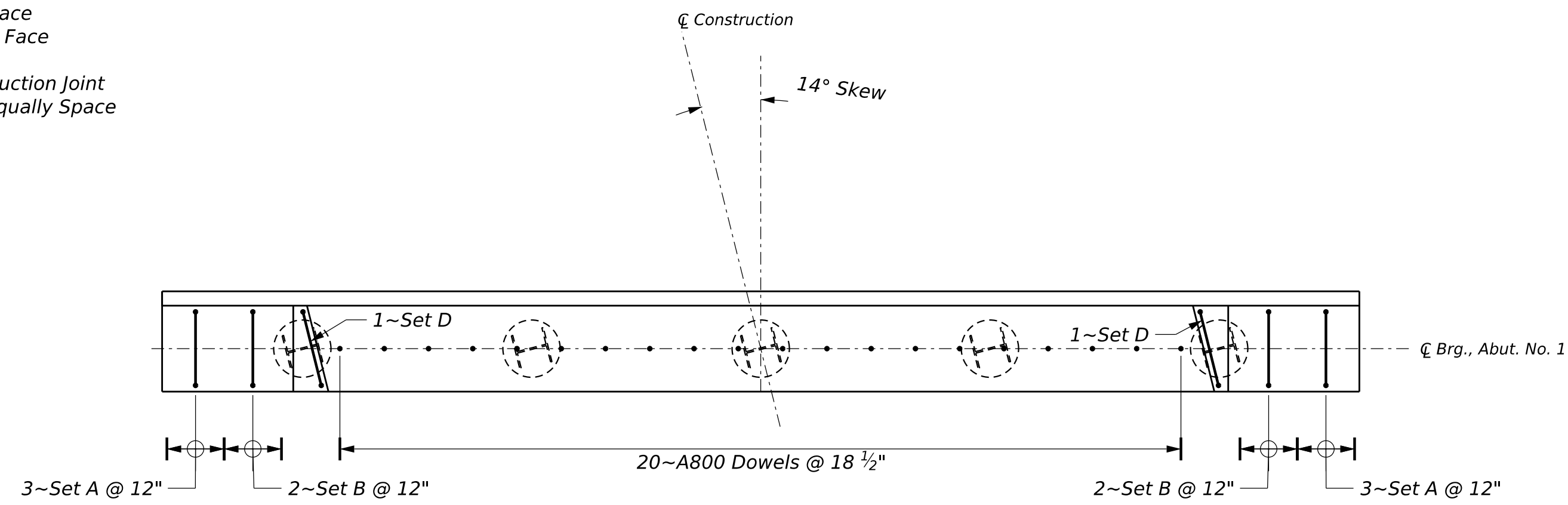
PROJ. MANAGER	JULIE BRASK	BY	DATE
DESIGN-DETAILED	EDB	EDB	12/2025
CHECKED-REVIEWED	RWN	MWP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
**ABUTMENT NO. 1**

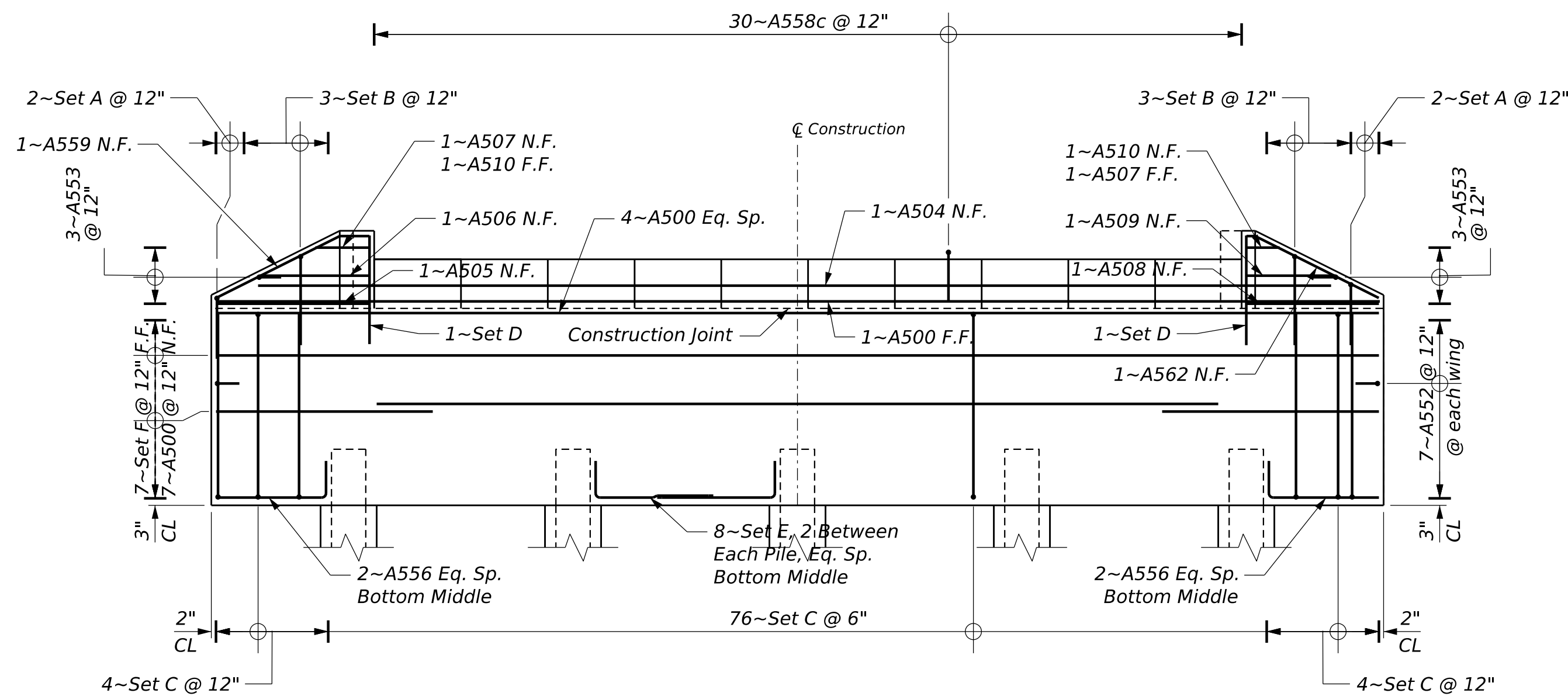
SHEET NUMBER  
**16**  
OF 26

Username: Erin Brewer Date: 12/3/2025

**NOTE:**  
 N.F. = Near Face  
 F.F. = Far Face  
 E.F. = Each Face  
 CL = Clear  
 CJ = Construction Joint  
 Eq. Sp. = Equally Space

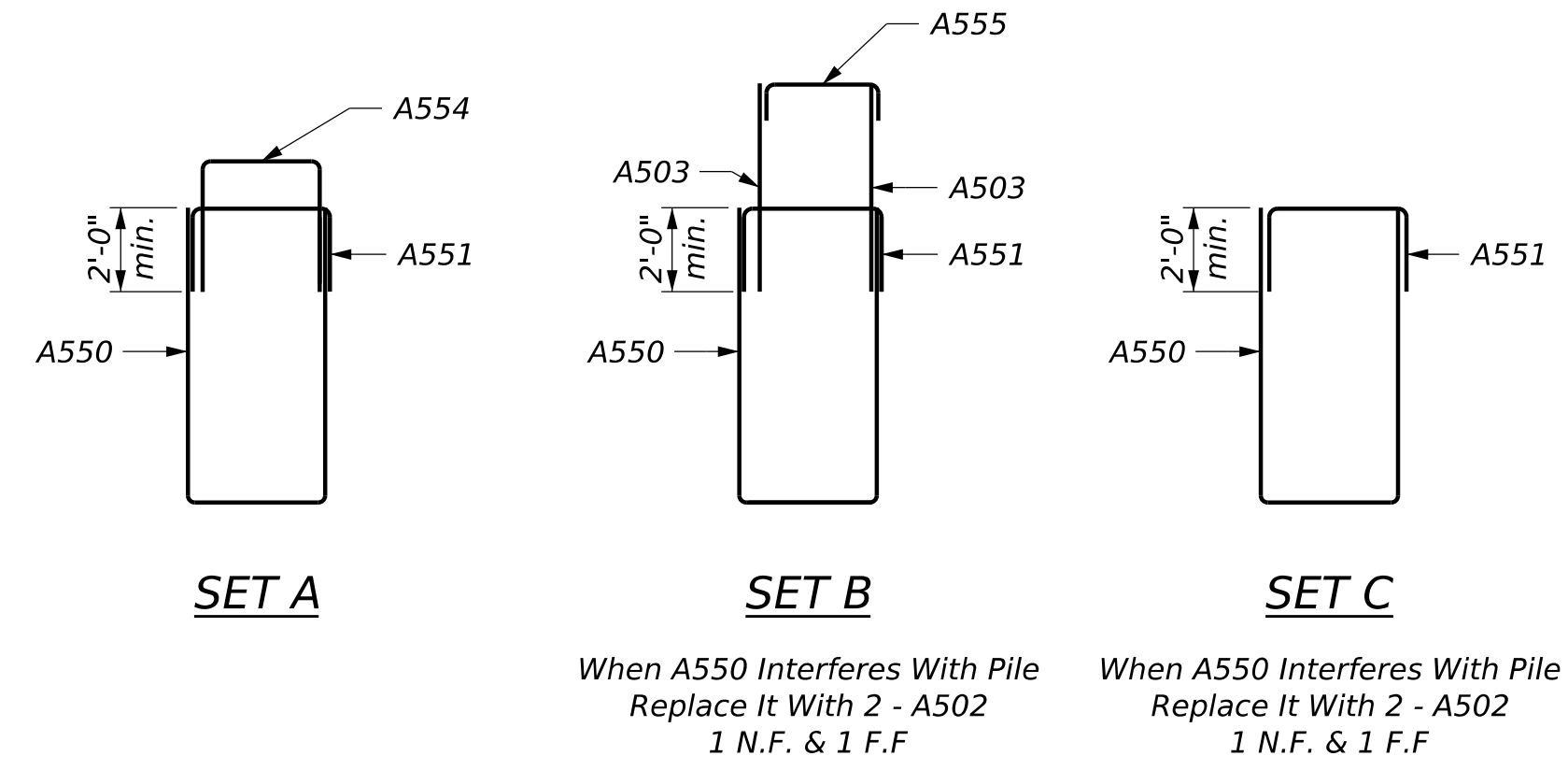


**PLAN ~ ABUTMENT NO.1 REINFORCEMENT**



**ELEVATION ~ ABUTMENT NO. 1 REINFORCEMENT**

Note: Stagger Set C between Set A & Set B in the wingwall. Set A will be the outermost rebar set.



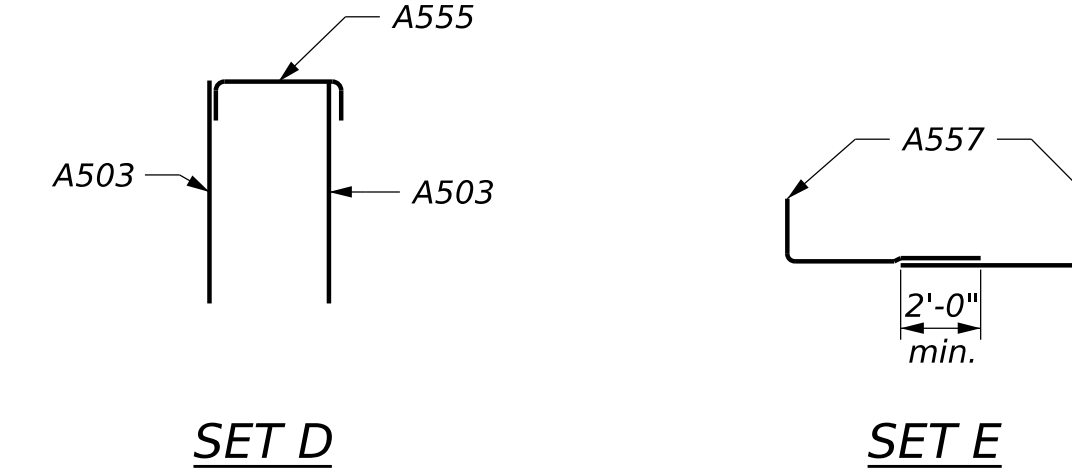
**SET A**

**SET B**

**SET C**

When A550 Interferes With Pile  
 Replace It With 2 - A502  
 1 N.F. & 1 F.F.

When A550 Interferes With Beam  
 Replace It With 2 - A502  
 1 N.F. & 1 F.F.

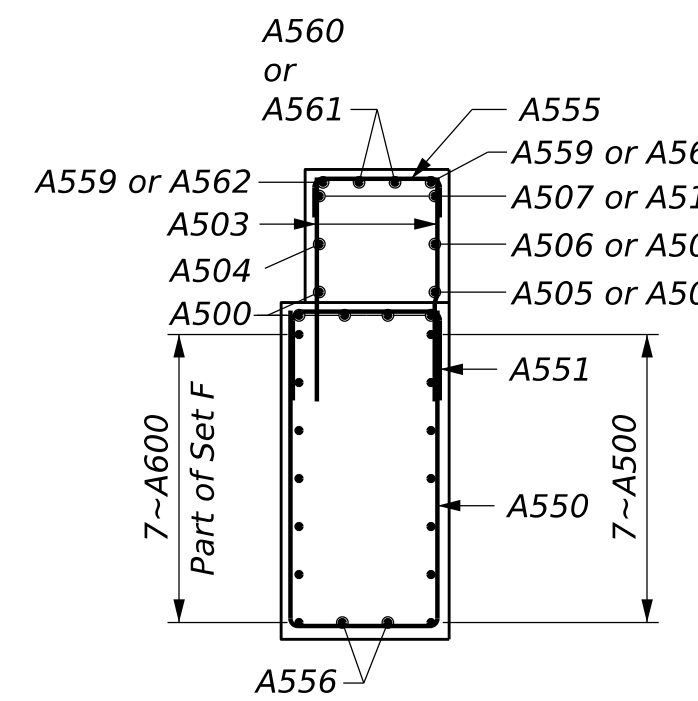


**SET D**

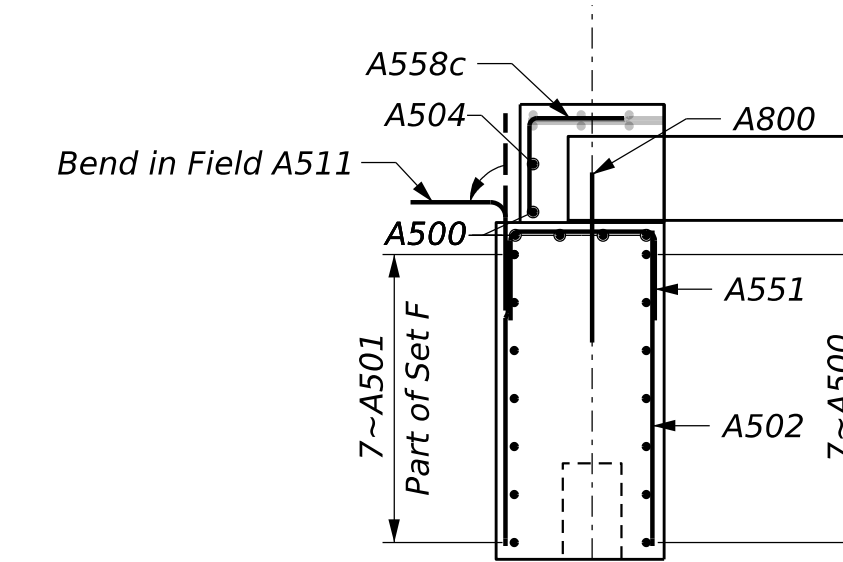
**SET E**



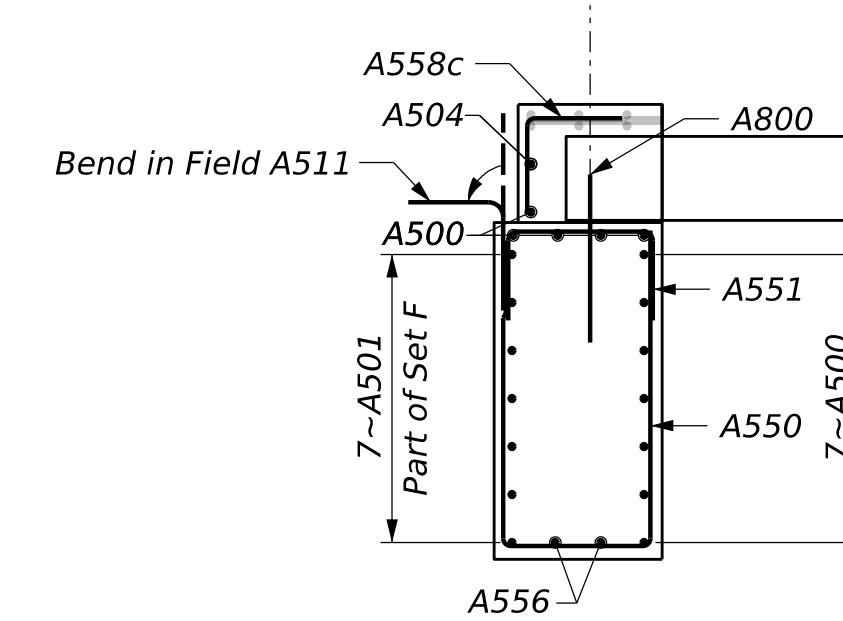
**SET F**



**Section At Wingwalls**



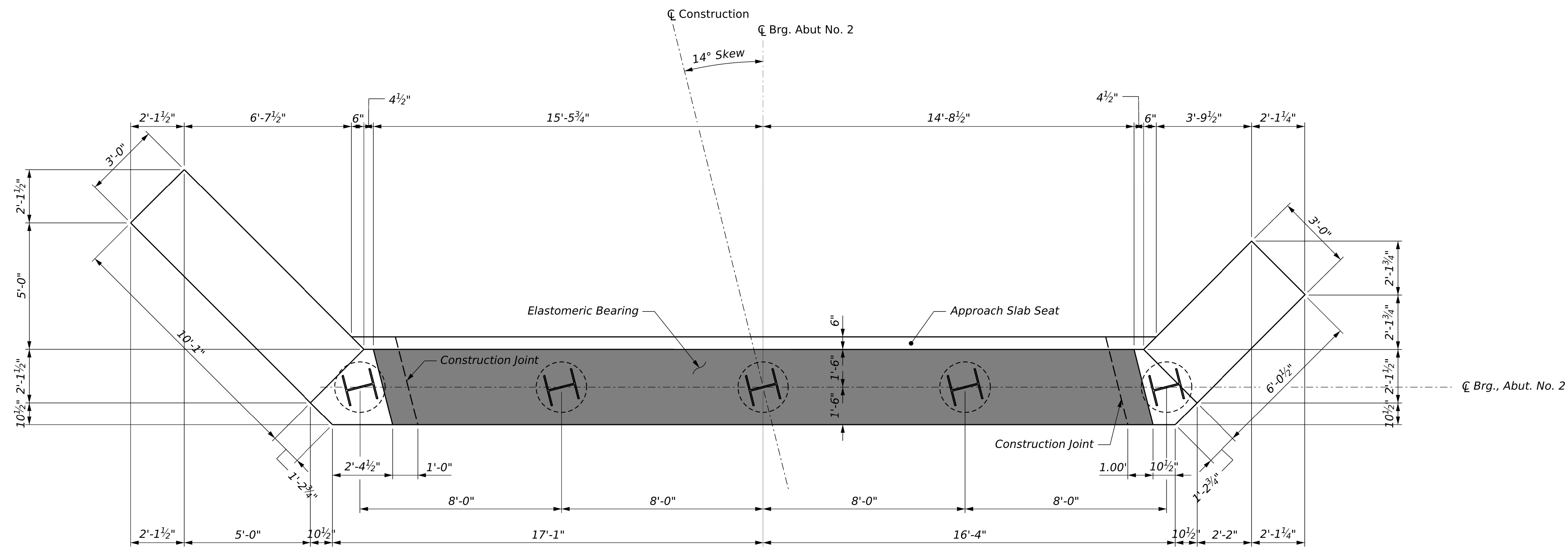
**Section At Piles**



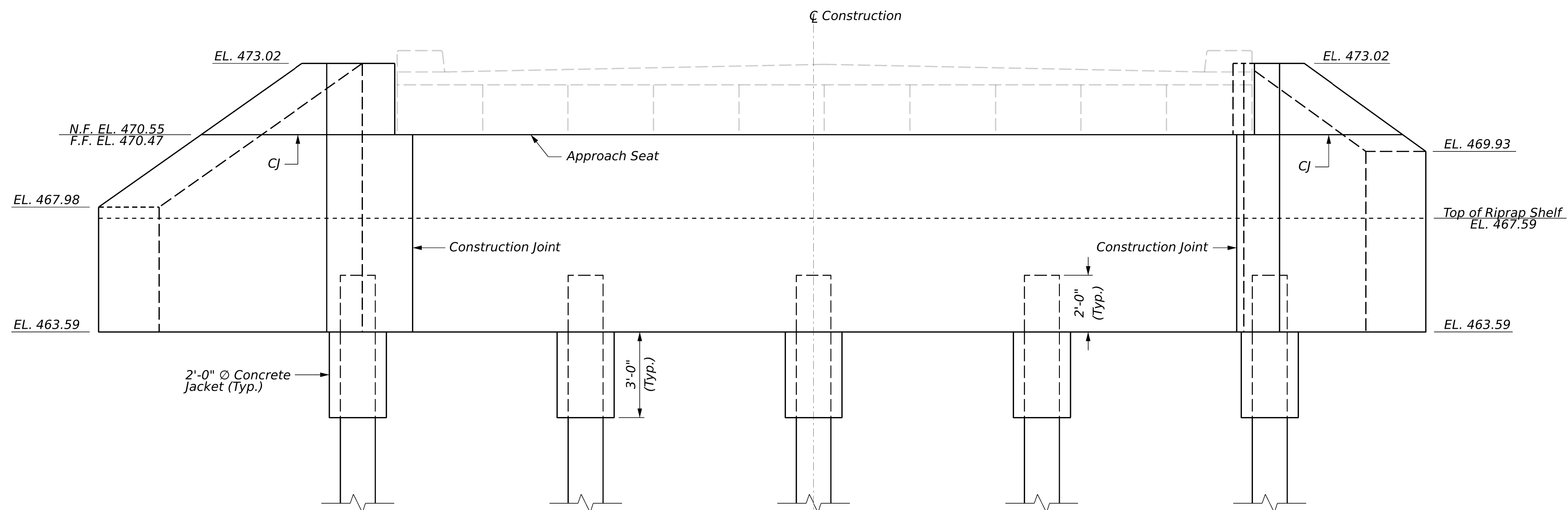
**Section At Beams**

DATE	SIGNATURE	P.E. NUMBER	DATE
12/2025			
12/2025			

PROJ. MANAGER	DATE	BY	DATE
JULIE BRASK	12/2025	EDB	12/2025
DESIGN-DETAILED		EDB	
CHECKED-REVIEWED		MRP	
DESIGN-DETAILED		RWN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



ABUTMENT NO. 2 PLAN



ABUTMENT NO. 2 ELEVATION

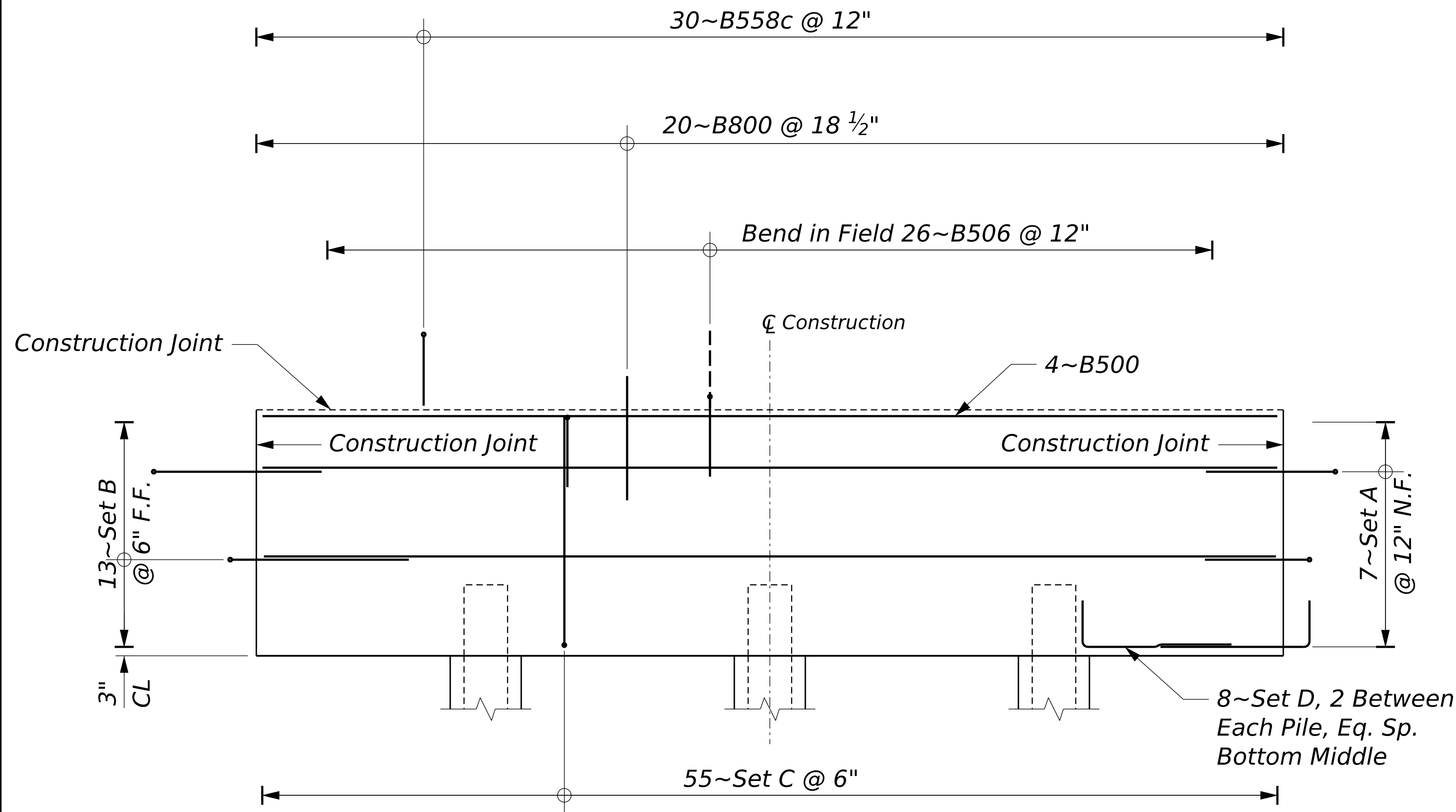
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 02753000  
WIN 027530.00

SIGNATURE  
P.E. NUMBER  
DATE

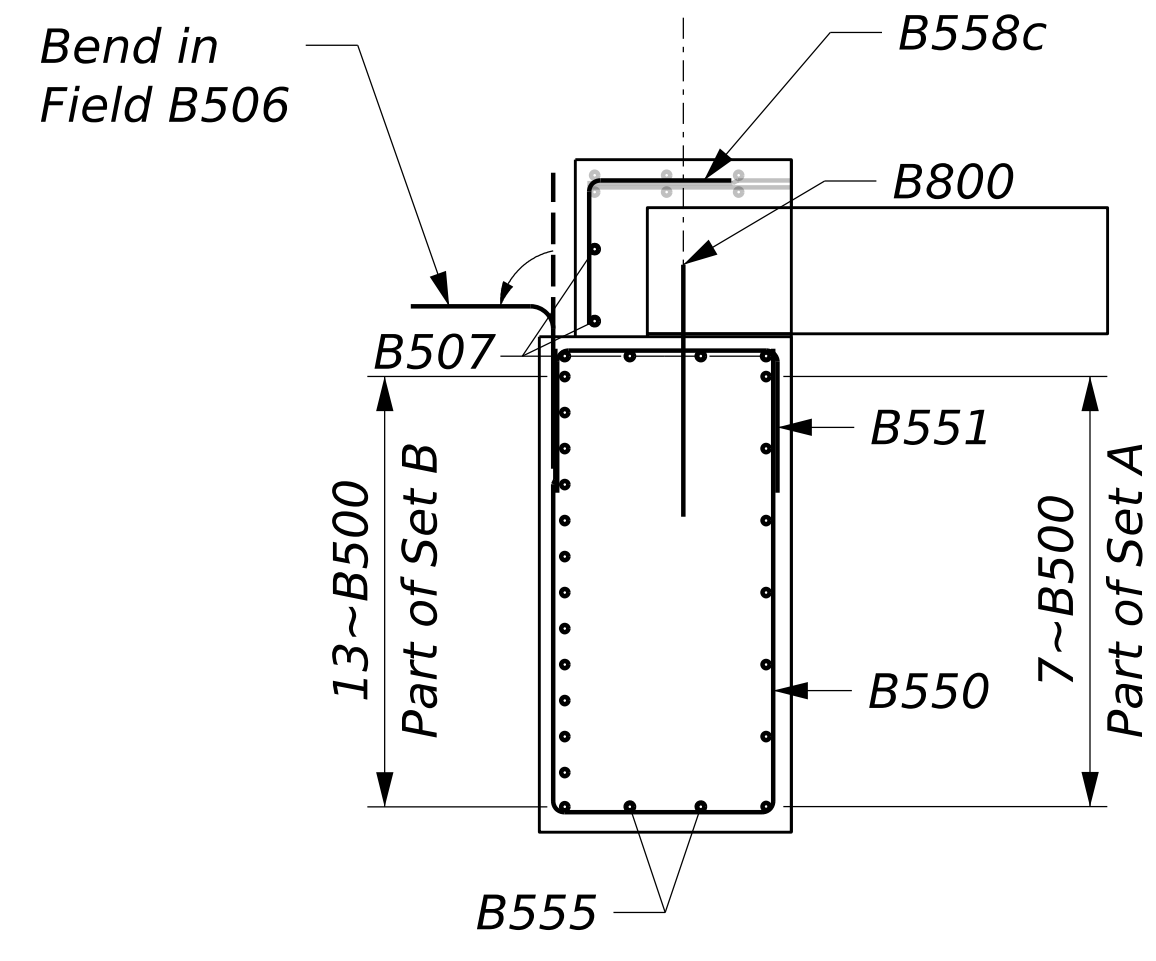
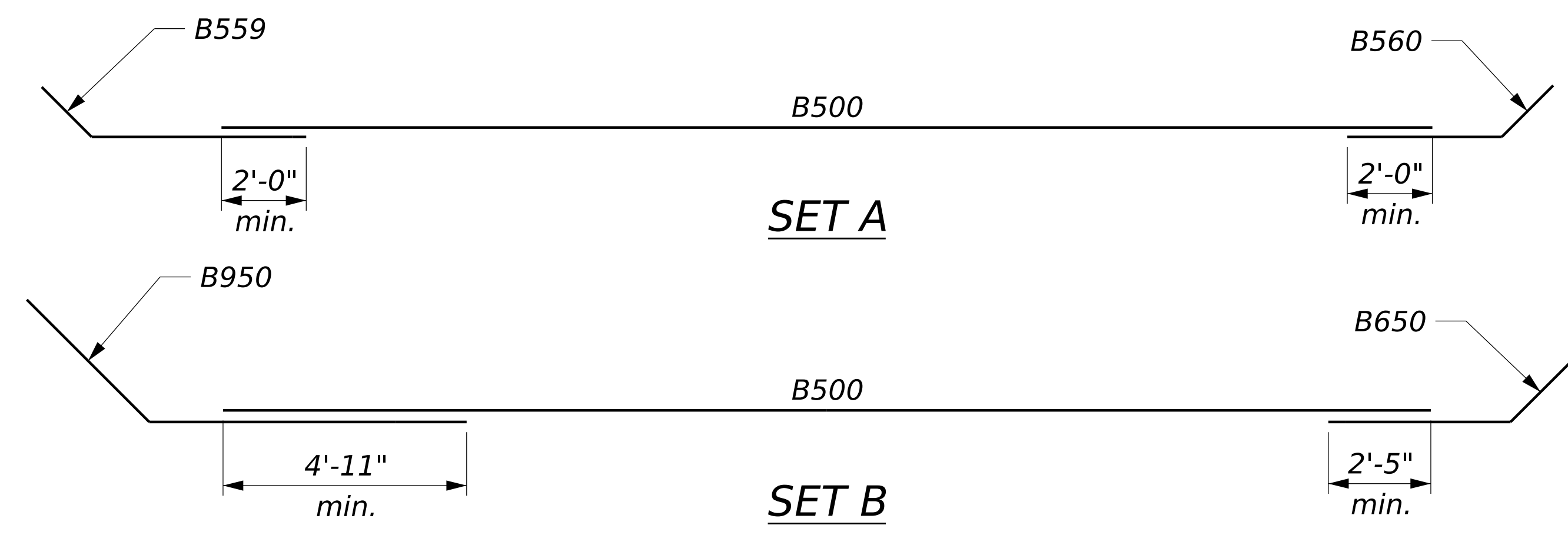
PROJ. MANAGER	JULIE BRASK	BY	DATE
DESIGN-DETAILED	EDB	EDB	12/2025
CHECKED-REVIEWED	RWN	MWP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
ABUTMENT NO. 2

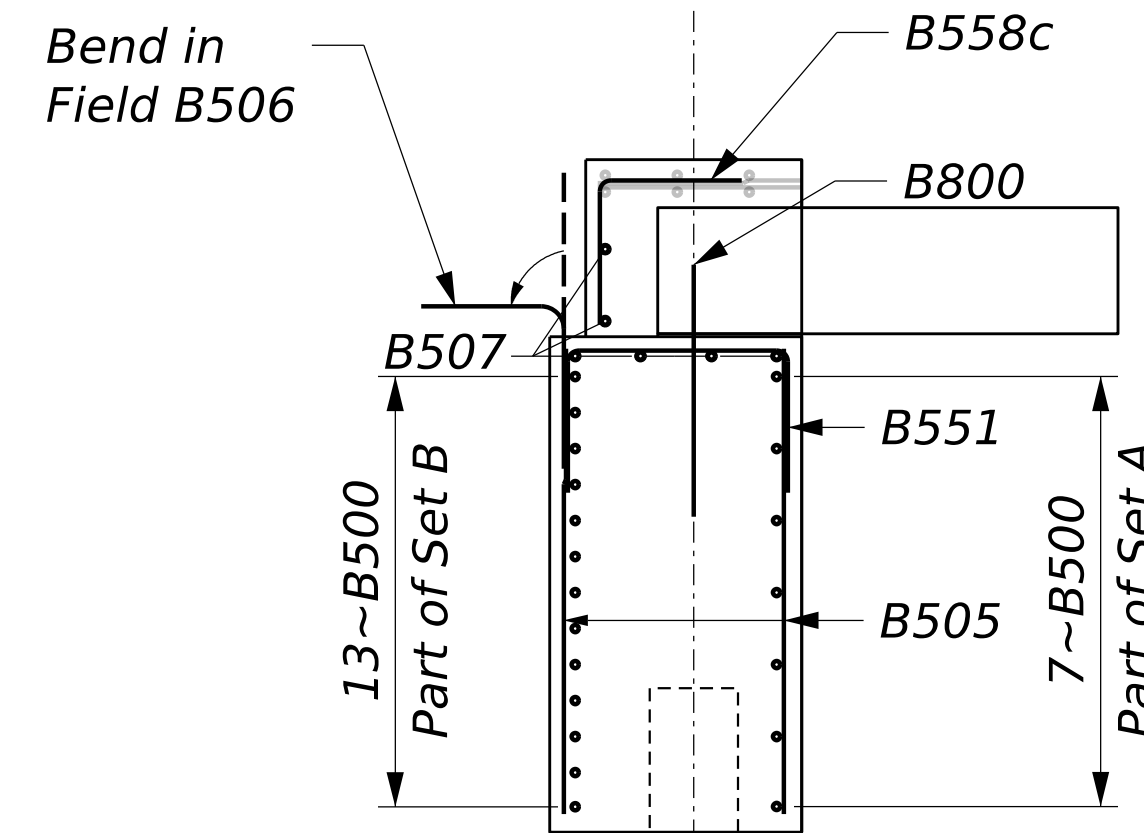
SHEET NUMBER  
**18**  
OF 26



**ELEVATION ~ ABUTMENT NO. 2 REINFORCEMENT**  
Between vertical construction joints



**Section At Beam**



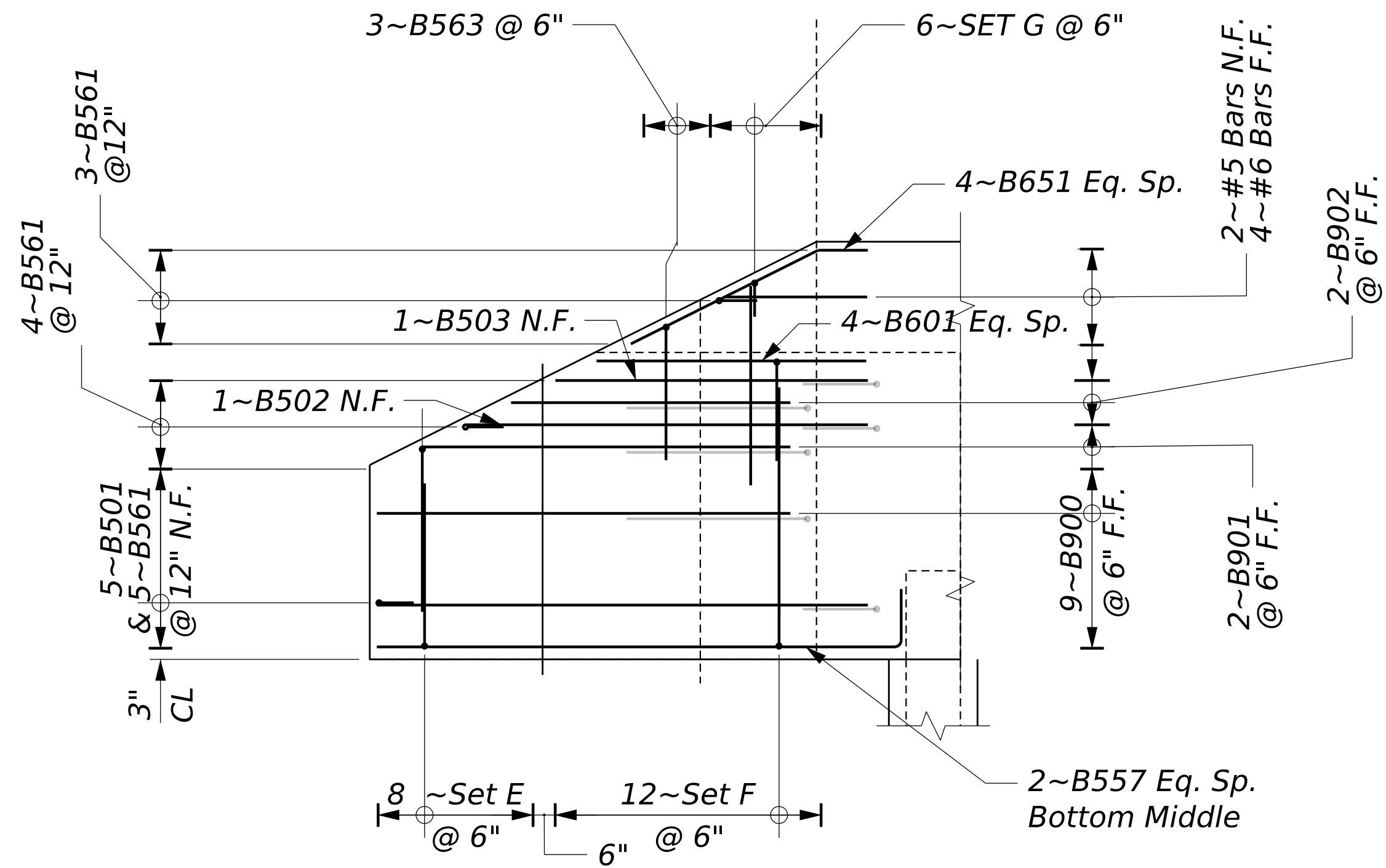
**Section At Pile**

**NOTE:**  
N.F. = Near Face  
F.F. = Far Face  
E.F. = Each Face  
CL = Clear  
CJ = Construction Joint  
Eq. Sp. = Equally Space

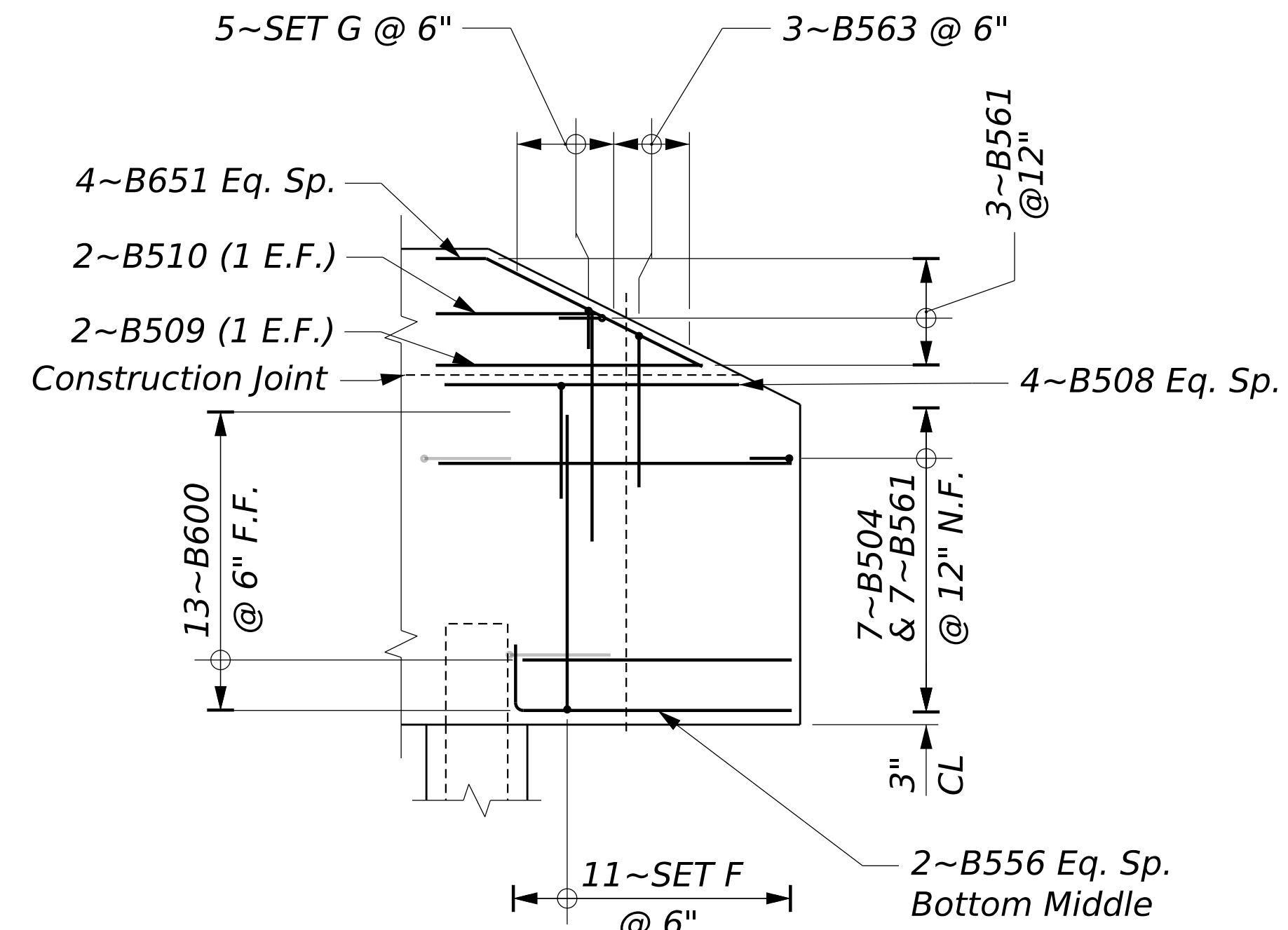
When Two Different Size Rebar Lap Each Other  
Use The Bigger Bar Size For Lap Splice

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		Federal Project No. 02753000		WIN 027530.00	
PROJ. MANAGER	JULIE BRASK	BY	JULIE BRASK	DATE	12/2025	SIGNATURE	
DESIGN-DETAILED	EDB	EDB	EDB	DATE	12/2025	P.E. NUMBER	
CHECKED-REVIEWED	RWN	RWN	RWN	DATE		DATE	
DESIGN-DETAILED02							
DESIGN-DETAILED03							
REVISIONS 1							
REVISIONS 2							
REVISIONS 3							
REVISIONS 4							
FIELD CHANGES							
MERRILLS CORNER BRIDGE BRIDGE NO. 0714							
CROSSING SHEPARD'S RIVER							
BROWNFIELD							
ABUTMENT NO. 2 REINFORCEMENT							
SHEET NUMBER							
19							
OF 26							

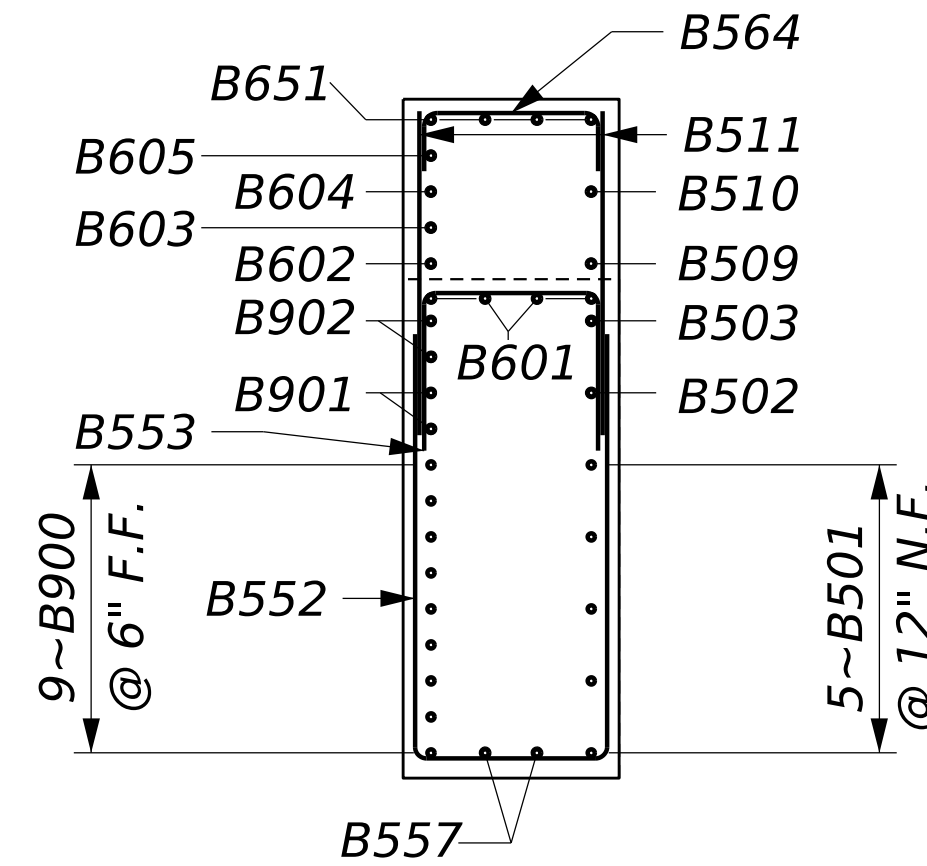
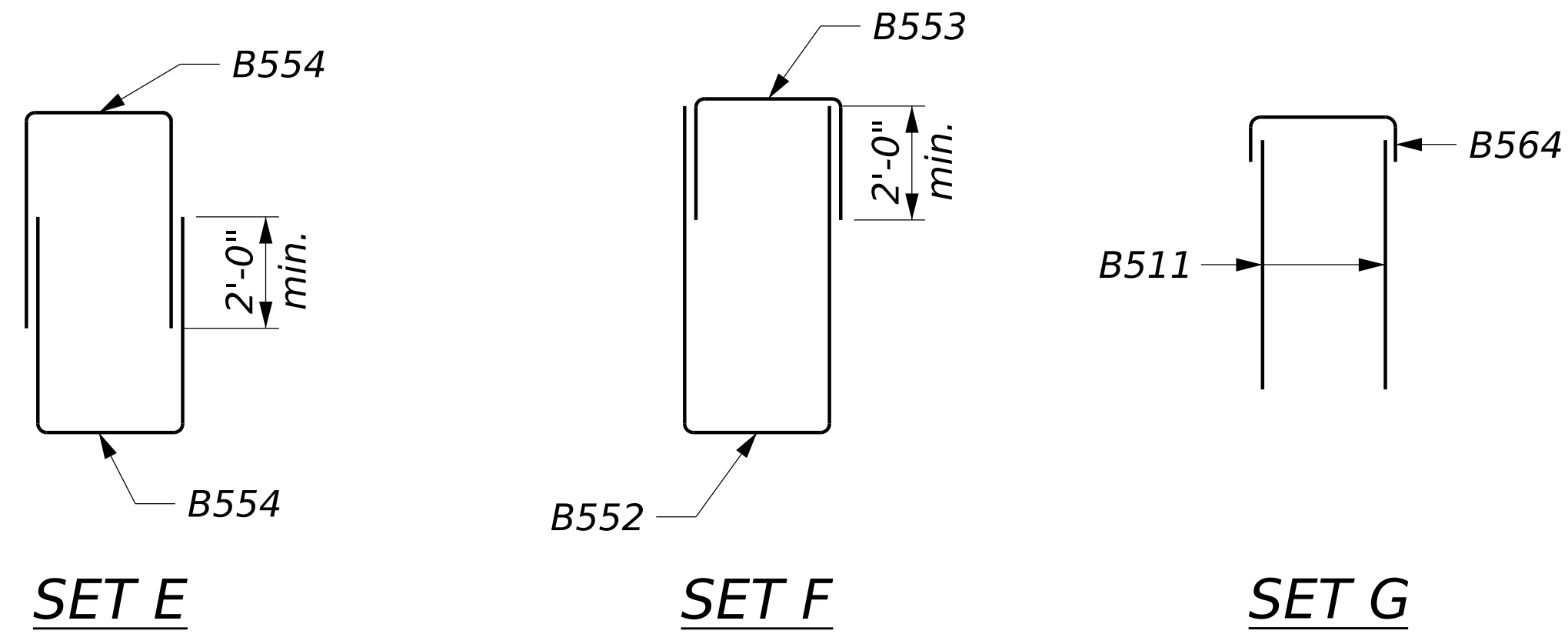
Username: Erin.Brewer Date: 12/3/2025



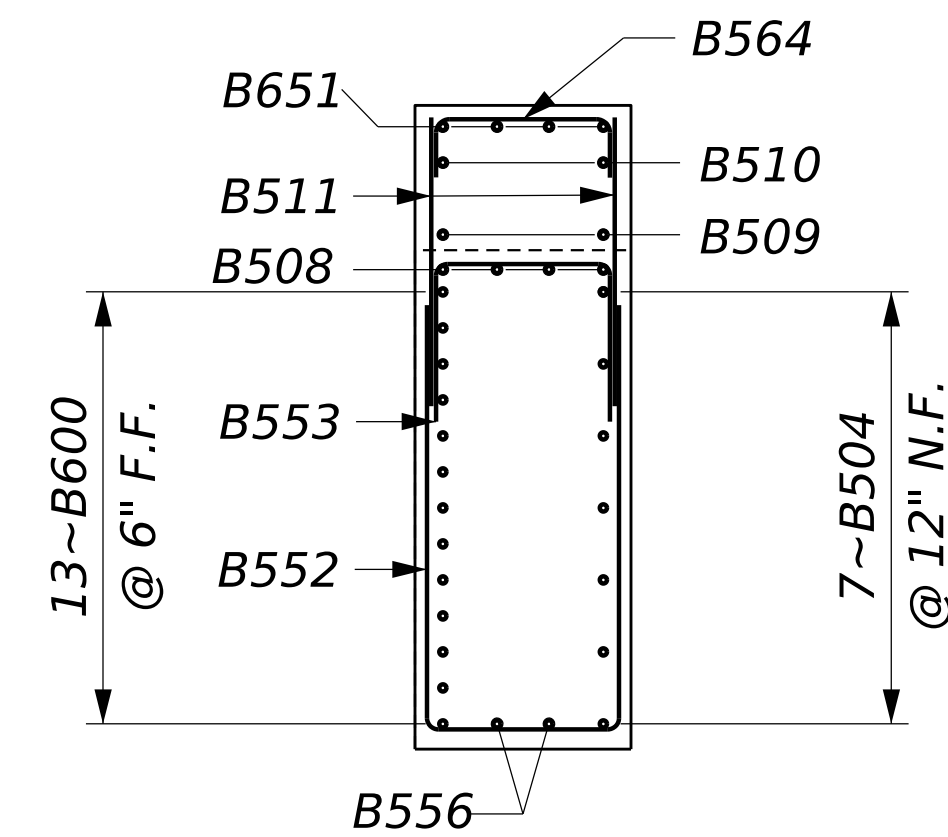
**UPSTREAM WING REINFORCING ELEVATION**



**DOWNSTREAM WING REINFORCING ELEVATION**



**UPSTREAM WINGWALL SECTION**



**DOWNSTREAM WINGWALL SECTION**

**NOTE:**  
 N.F. = Near Face  
 F.F. = Far Face  
 E.F. = Each Face  
 CL = Clear  
 CJ = Construction Joint  
 Eq. Sp. = Equally Space

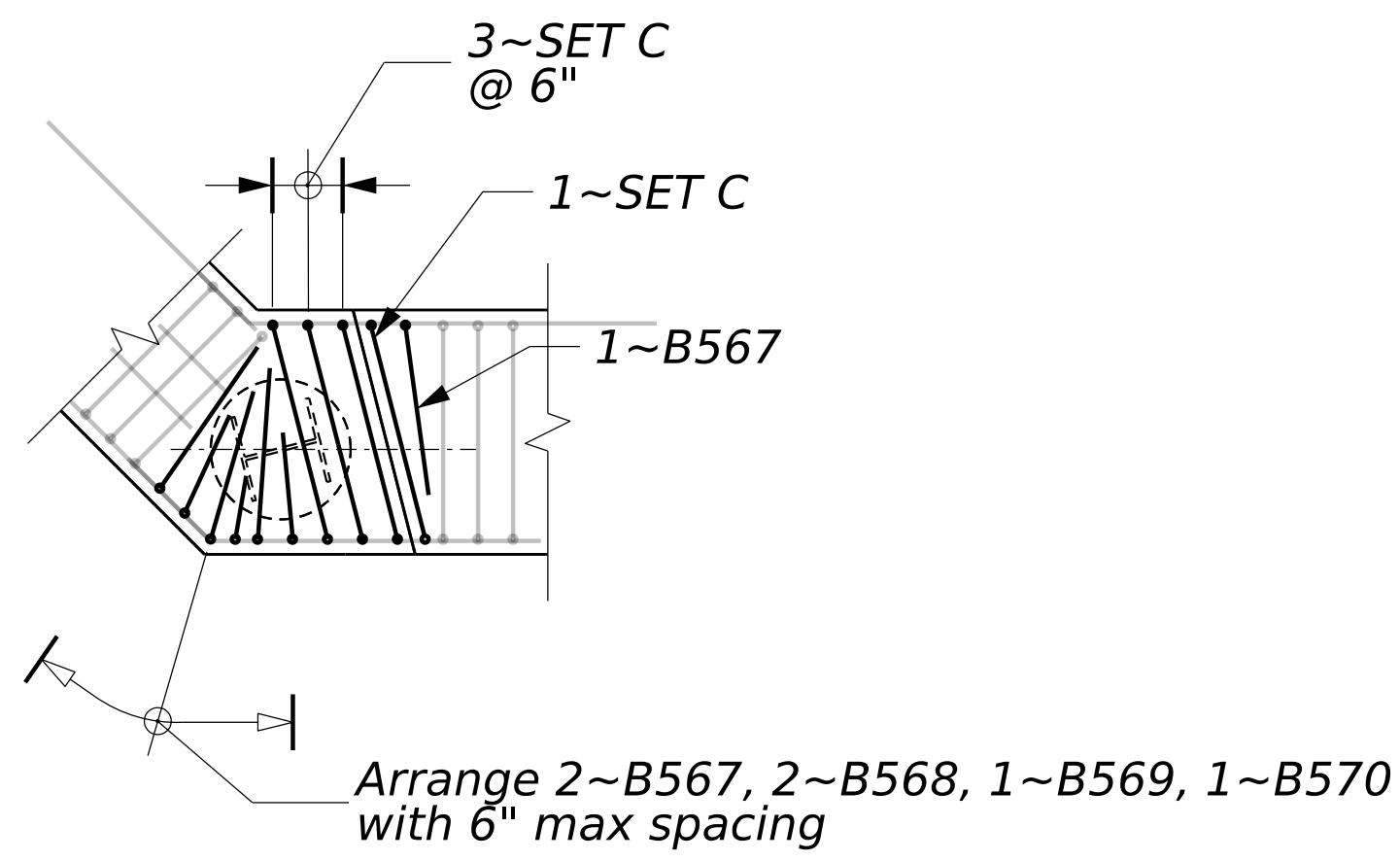
MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
 CROSSING SHEPARDS RIVER  
 BROWNFIELD  
 ABUTMENT NO. 2 WING REINFORCING

SHEET NUMBER

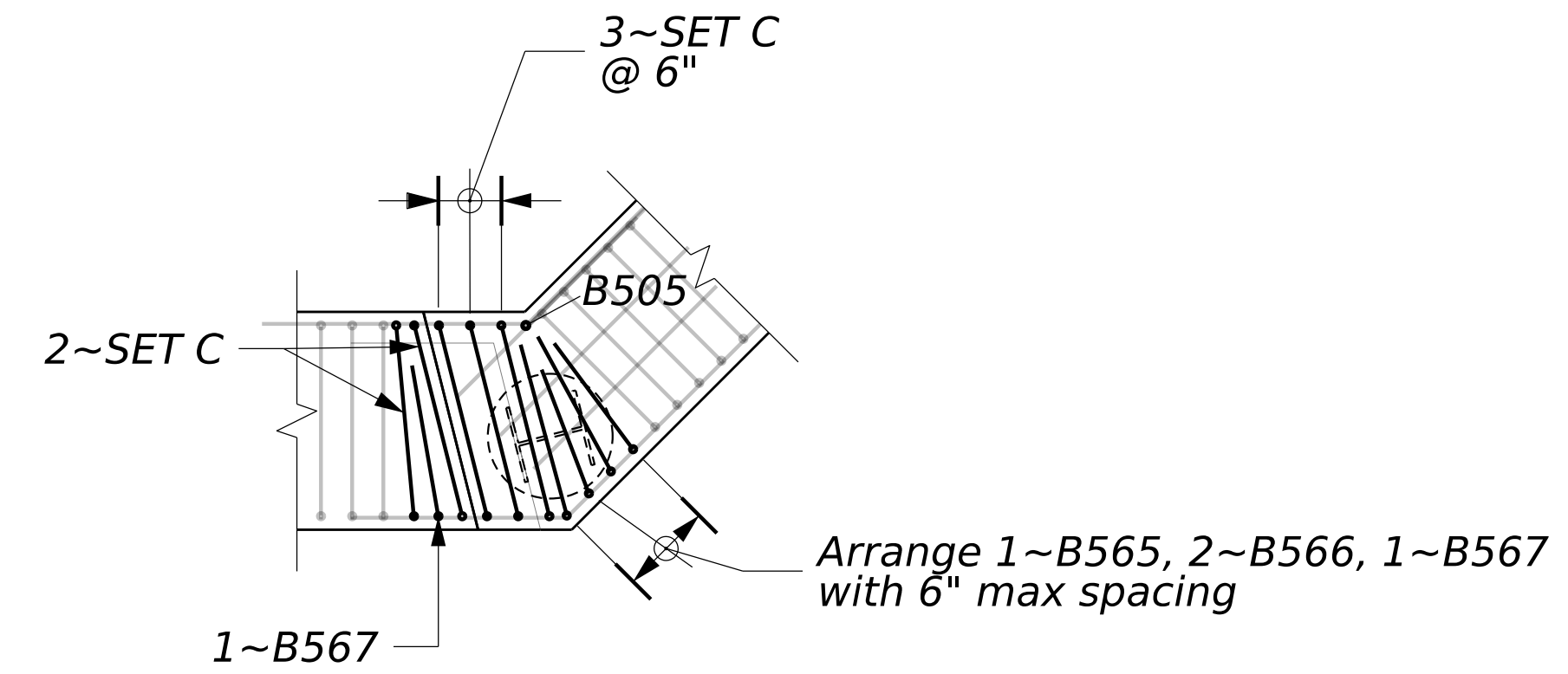
20

OF 26

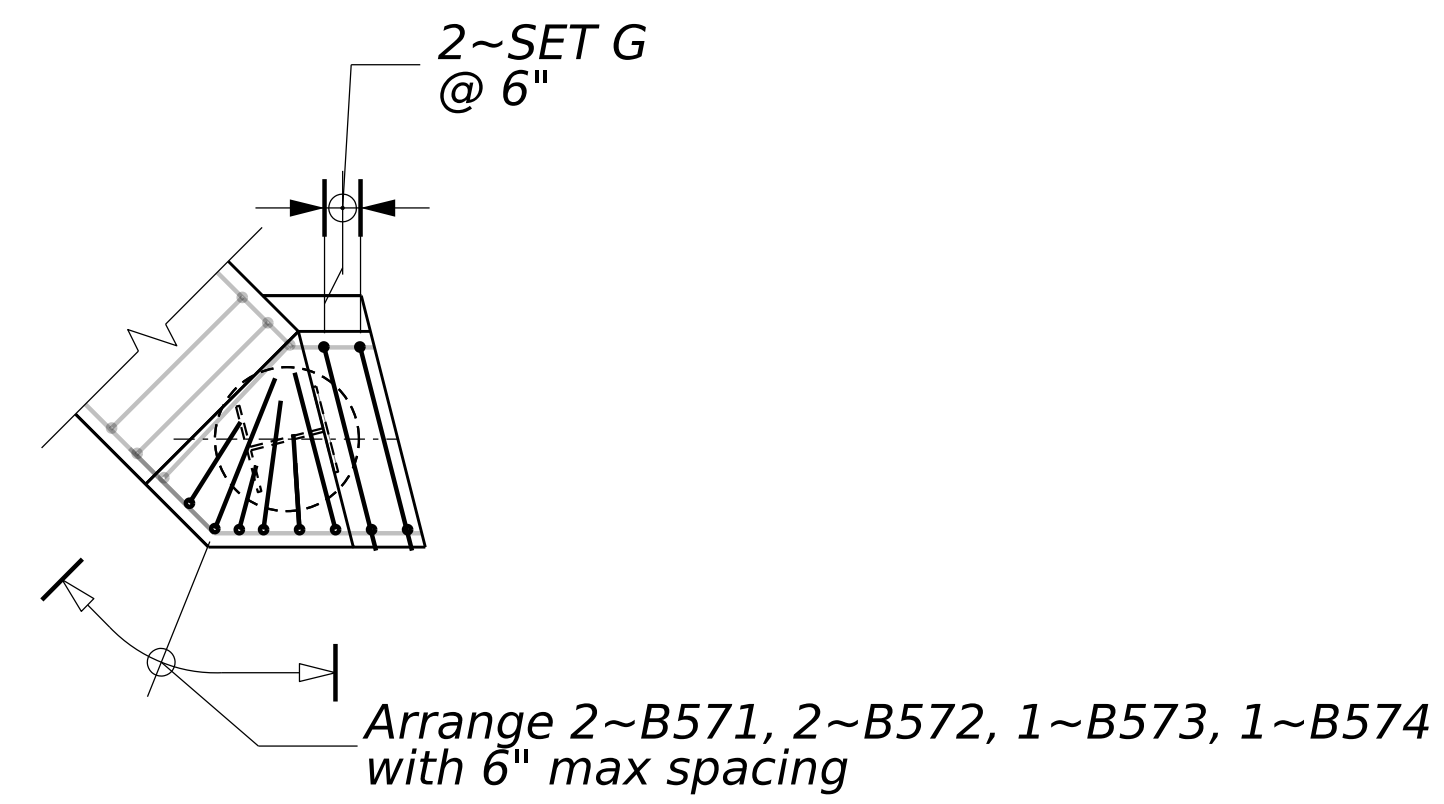
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
Federal Project No. 02753000		WIN 027530.00	
PROJ. MANAGER	JULIE BRASK	DATE	DATE
DESIGN-DETAILED	EDB	12/2025	
CHECKED-REVIEWED	RWP	12/2025	
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE		P.E. NUMBER	DATE



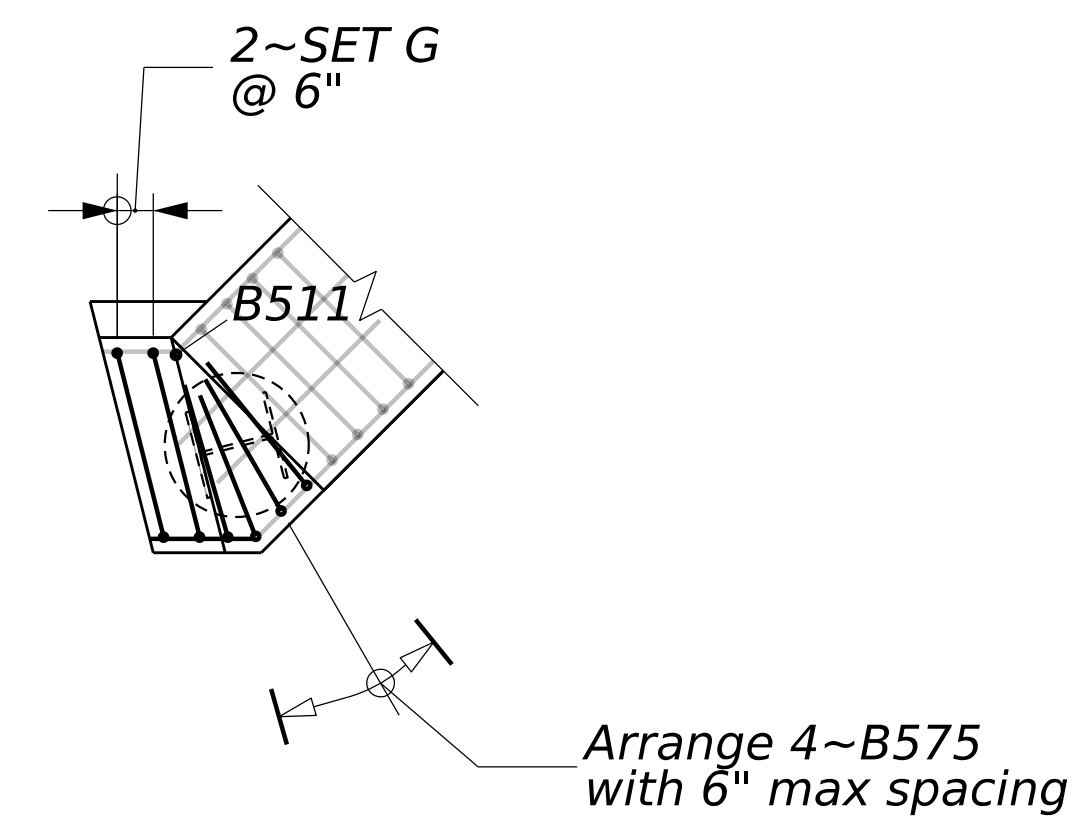
PLAN VIEW ~ UPSTREAM WING TO ABUTMENT CONNECTION BELOW CONSTRUCTION JOINT



PLAN VIEW ~ DOWNSTREAM WING TO ABUTMENT CONNECTION BELOW CONSTRUCTION JOINT



PLAN VIEW ~ UPSTREAM WING TO ABUTMENT CONNECTION ABOVE CONSTRUCTION JOINT



PLAN VIEW ~ DOWNSTREAM WING TO ABUTMENT CONNECTION ABOVE CONSTRUCTION JOINT

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 02753000  
WIN 027530.00

PROJ. MANAGER	JULIE BRASK	DATE	DATE
DESIGN-DETAILED	EDB	12/2025	
CHECKED-REVIEWED	MBP	12/2025	
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

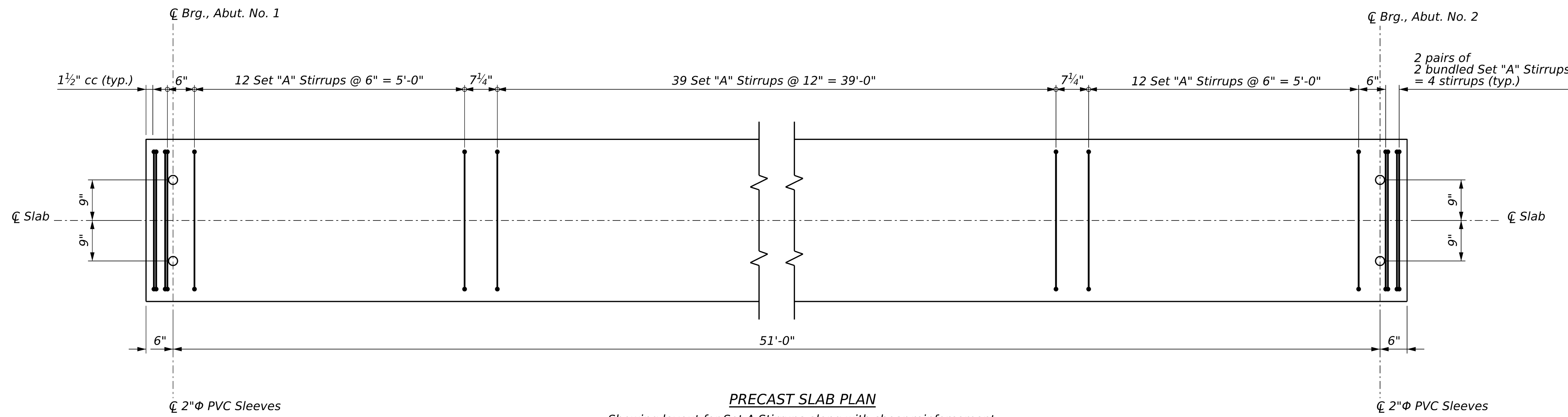
MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARD'S RIVER  
BROWNFIELD  
ABUTMENT NO. 2  
REINFORCING DETAILS

SHEET NUMBER  
**21**  
OF 26

Date: 12/3/2025

Username: Erin.Brewer





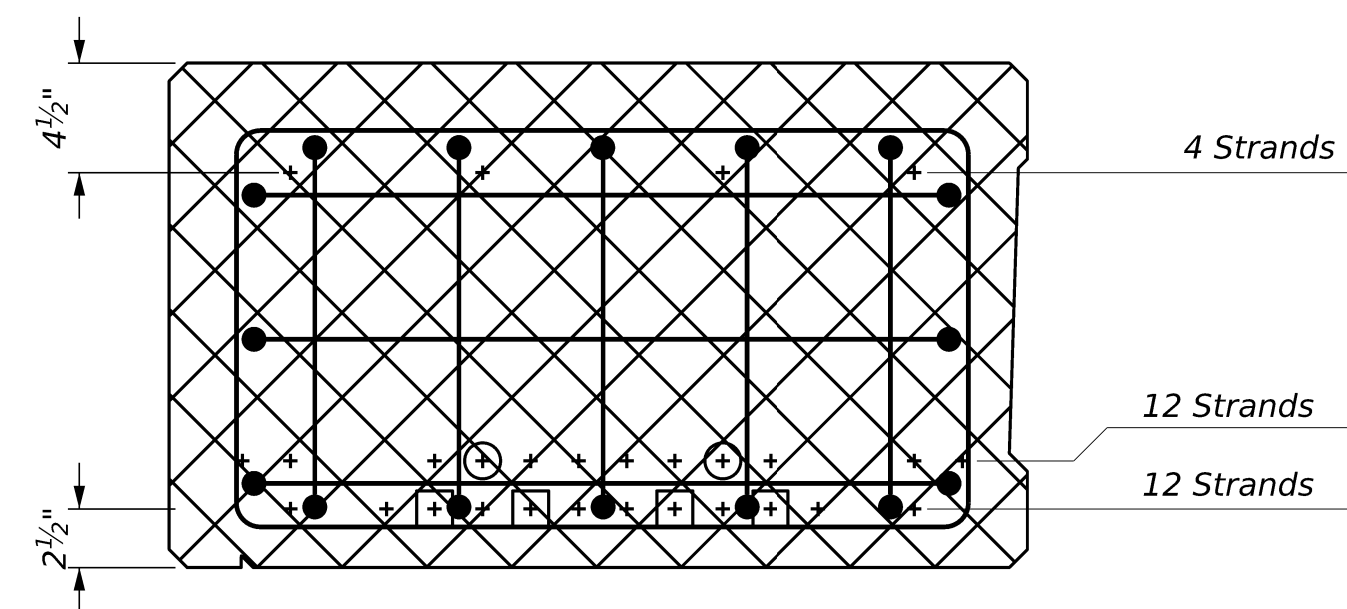
**PRECAST SLAB PLAN**  
 Showing layout for Set A Stirrups along with shear reinforcement  
 For more information on addition reinforcement, dimensions, spacing and clearances,  
 see Standard Details, Section 535 - Precast Superstructure

**PRECAST CONCRETE SUPERSTRUCTURE NOTES**

1. Prestressing strands shall be 0.6-in. diameter. The tensioning force is 44 kips per prestressing strand.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Unless otherwise noted, rake the top surface of the upper flange of the prestressed beams to a surface roughness of  $\pm 1/4$  inch, except at locations corresponding to the blocking points. At these locations, finish a flattened area of sufficient size to facilitate taking elevations for setting the bottom of slab elevations.
4. Do not drill holes or use powder actuated tools on the prestressed beams without the approval of the Fabrication Engineer.
5. The estimated camber at release is 1 1/4 inches and the estimated camber at erection is 1 inch. Refer to Special Provision 535, Precast, Prestressed Concrete Superstructure - Camber.

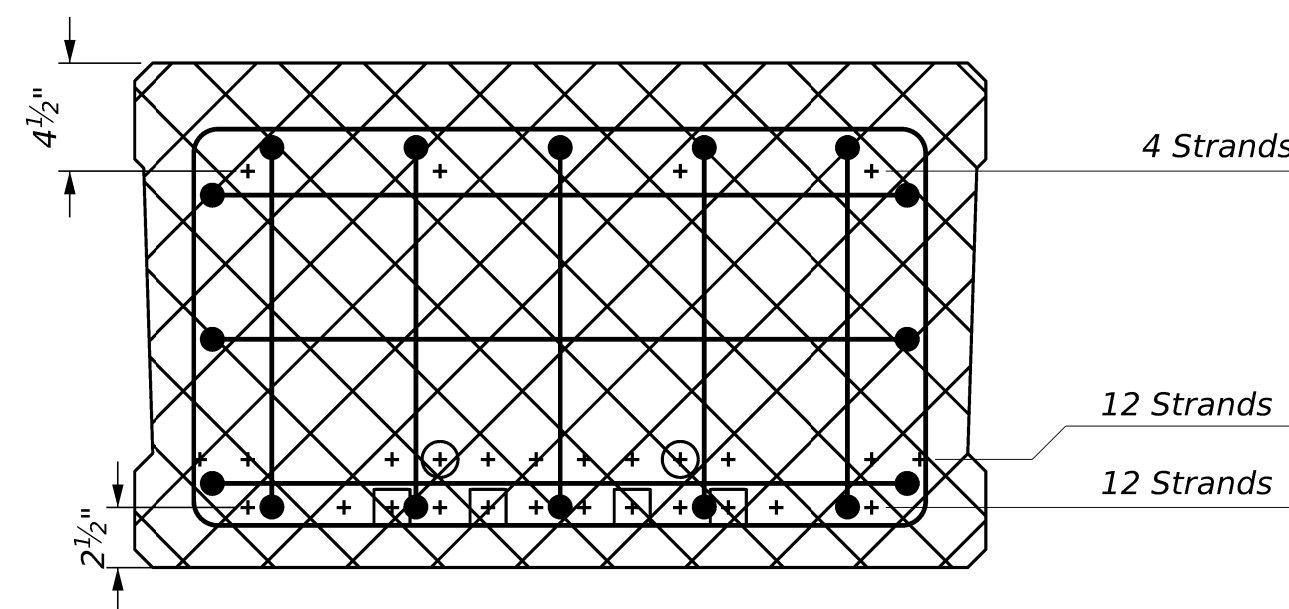
**ELASTOMERIC BEARING PAD NOTES**

1. Elastomeric Bearing Pads shall be 1/2" x 2'-0" x 30'-0".
2. The elastomer shall have a shear modulus of 95 psi and a Shore A durometer hardness of 50.
3. Elastomeric Bearing Pads shall conform to the requirements of the latest edition of the AASHTO LRFD Bridge Construction Specifications, Section 18.2.
4. Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract items. No separate payment will be made.



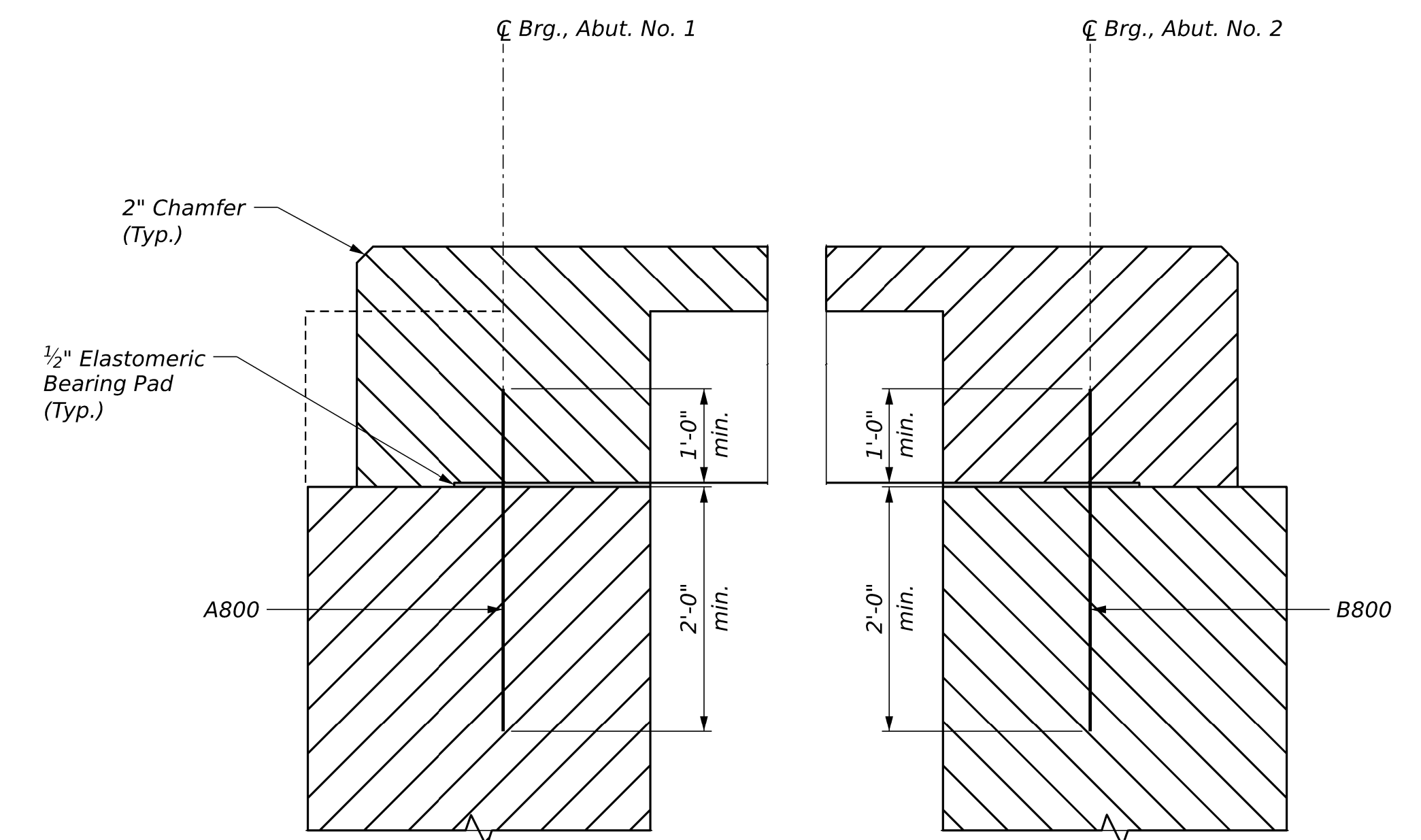
**EXTERIOR SLAB SECTION**

- + = 0.6" Strand - Fully bonded
- ⊕ = 0.6" Strand - Debonded 4'-0" from end of slab
- ⊕+ = 0.6" Strand - Debonded 7'-0" from end of slab



**INTERIOR SLAB SECTION**

- + = 0.6" Strand - Fully bonded
- ⊕ = 0.6" Strand - Debonded 4'-0" from end of slab
- ⊕+ = 0.6" Strand - Debonded 7'-0" from end of slab



**SUPERSTRUCTURE ANCHORAGE DETAIL**

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	Federal Project No. 02753000	WIN 027530.00
MERRILLS CORNER BRIDGE BRIDGE NO. 0714				
PROJ. MANAGER	JULIE BRASK	DESIGN-REVIEWED	EDB	DATE
CHECKED-REVIEWED	EDB	DESIGN-REVIEWED	WBP	12/2025
DESIGN-REVIEWED	JJ	DESIGN-REVIEWED		12/2025
DESIGN-REVIEWED		DESIGN-REVIEWED		
REVISIONS 1		REVISIONS 1		
REVISIONS 2		REVISIONS 2		
REVISIONS 3		REVISIONS 3		
REVISIONS 4		REVISIONS 4		
FIELD CHANGES		FIELD CHANGES		
SIGNATURE		P.E. NUMBER		DATE

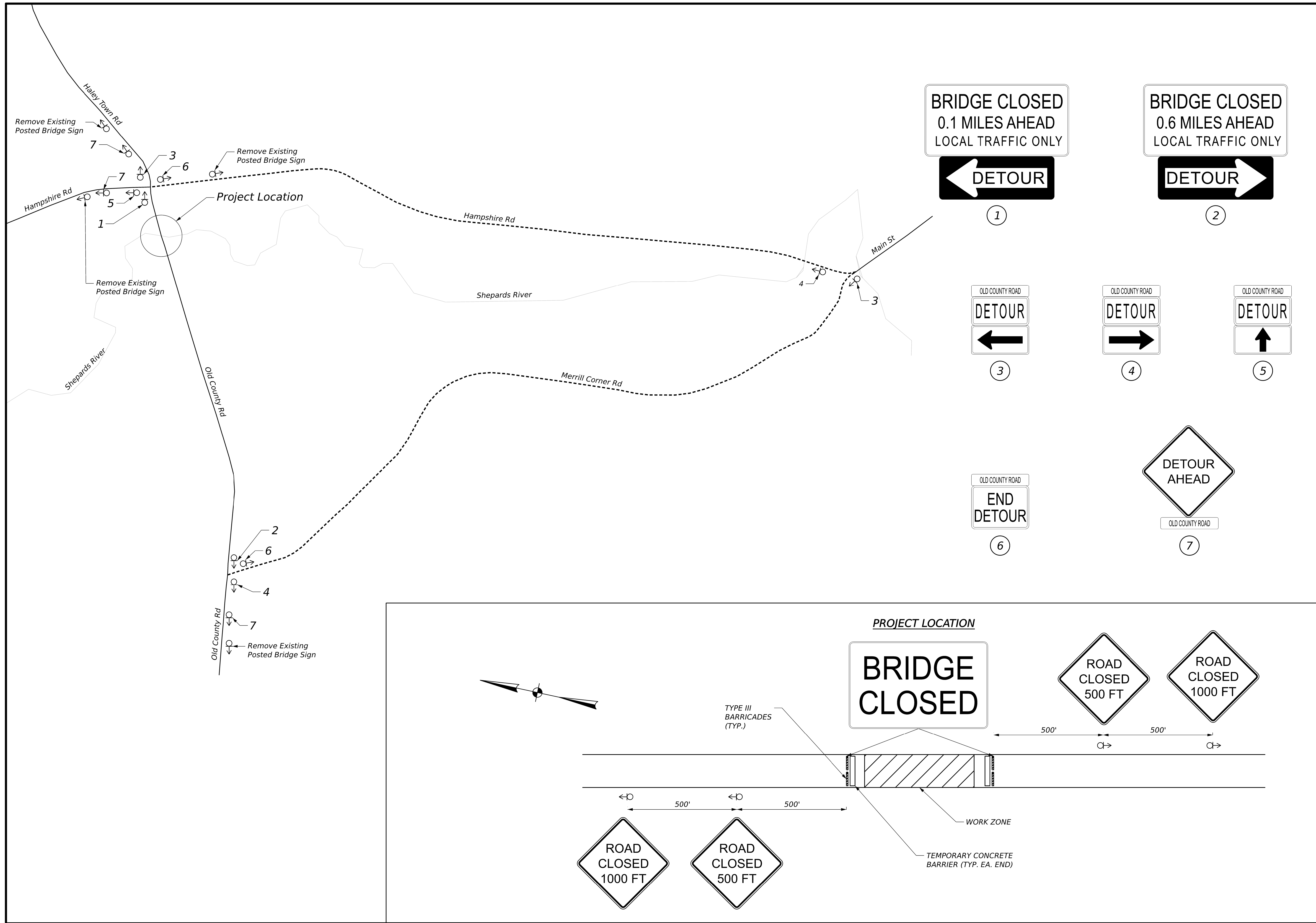
MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
 CROSSING SHEPARD'S RIVER  
 BROWNFIELD  
**PRECAST SLAB DETAILS**

**SHEET NUMBER**  
**23**  
 OF 26

Date: 12/3/2025

Username: Erin Brewer





**BRIDGE CLOSED**  
0.1 MILES AHEAD  
LOCAL TRAFFIC ONLY

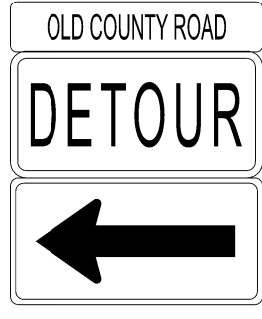


1

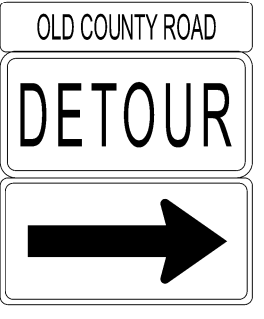
**BRIDGE CLOSED**  
0.6 MILES AHEAD  
LOCAL TRAFFIC ONLY



2



3



4



5



6



7

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
Federal Project No. 02753000

SIGNATURE  
P.E. NUMBER  
DATE

PROJ. MANAGER	JULIE BRASK	BY	DATE
DESIGN-DETAILED	EDB	EDB	12/2025
CHECKED-REVIEWED	GAG	MWP	12/2025
DESIGN-DETAILED02			
DESIGN-DETAILED03			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

MERRILLS CORNER BRIDGE BRIDGE NO. 0714  
CROSSING SHEPARDS RIVER  
BROWNFIELD  
**DETOUR PLAN**

SHEET NUMBER  
**25**  
OF 26

**PLAN LEGEND**

Town, County, State _____	New R/W Along Existing R/W _____	Existing	Proposed	Existing	Proposed	Existing	Proposed
Approx. Property Lines _____	Building _____ Clearing Limit Line - CLL _____	Sanitary Sewer _____	SA _____	Traveled Way _____	_____	Cut Line _____	Fill Line _____
Existing Right of Way _____	Trees Conifer _____ Deciduous _____	Com. Line UG _____	UG COMM _____	Ditch _____	_____	Stonewall _____	Retaining Wall _____
Limits of Wrought Portion <b>LIMITS OF WROUGHT PORTION</b>	Tree Line _____ Bush Line _____	Electric Line _____	UG POW _____	Catch Basin _____	_____	Baseline _____	_____
Control Of Access _____	Water Edge _____	Water Line _____	WL _____	Manhole _____	_____	_____	_____
New Right of Way _____	Ledge _____ Rock/Boulder _____ Flag Pole _____	Underdrain Line _____	_____	Sewer Manhole _____	_____	Monument _____	Traverse Point _____
New Easement _____	Fence CHAIN LINK _____ BARB WIRE _____ STOCKADE _____	Gas Line _____	GAS _____	Utility Pole _____	_____	Iron Rod Set _____	_____
New Temporary Rights <b>TEMP. CONST. LIMITS</b>	Sign _____ Well _____ Mailbox _____	Guardrail _____	_____	Fire Hydrant _____	_____	_____	Pipe Found _____
New R/W Within Existing R/W _____		Culvert _____	_____	Curbing _____	_____		

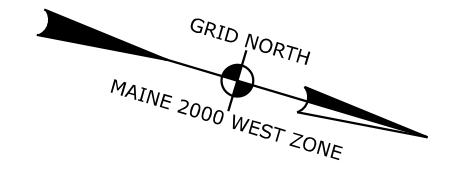
THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ADJUTING PROPERTY OWNERS.

Scale of Feet

STATE OF MAINE  
REGISTRY OF DEEDS

COUNTY OF \_\_\_\_\_  
RECEIVED \_\_\_\_\_, 20\_\_\_\_  
AT \_\_\_\_\_ HRS. \_\_\_\_\_ MINS. \_\_\_\_\_ M.  
AND RECORDED IN \_\_\_\_\_  
PLAN BOOK (OR FILE NO.) \_\_\_\_\_, PAGE \_\_\_\_\_  
ATTEST: \_\_\_\_\_ REGISTER

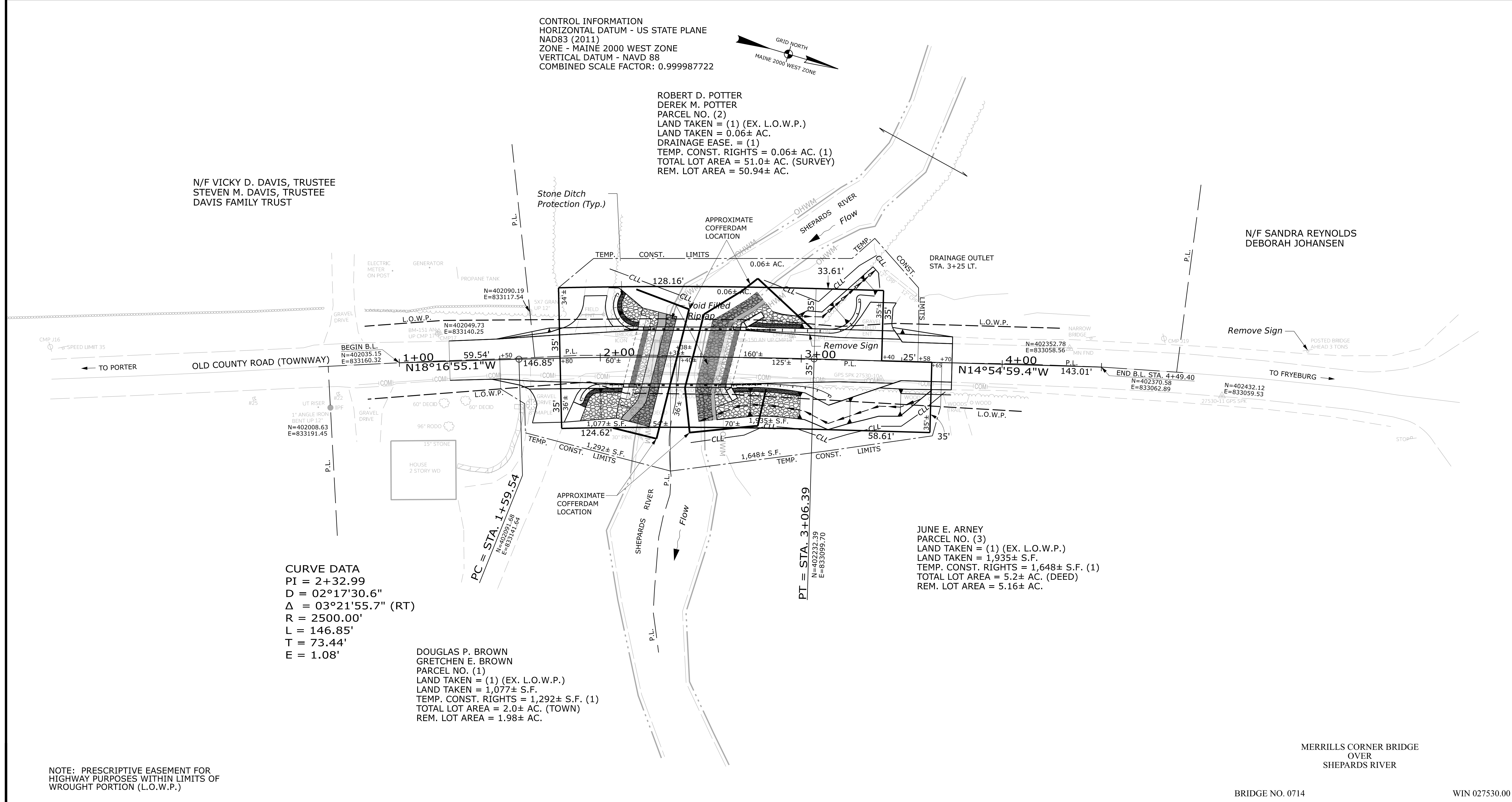
CONTROL INFORMATION  
HORIZONTAL DATUM - US STATE PLANE  
NAD83 (2011)  
ZONE - MAINE 2000 WEST ZONE  
VERTICAL DATUM - NAVD 88  
COMBINED SCALE FACTOR: 0.999987722



ROBERT D. POTTER  
DEREK M. POTTER  
PARCEL NO. (2)  
LAND TAKEN = (1) (EX. L.O.W.P.)  
LAND TAKEN = 0.06± AC.  
DRAINAGE EASE. = (1)  
TEMP. CONST. RIGHTS = 0.06± AC. (1)  
TOTAL LOT AREA = 51.0± AC. (SURVEY)  
REM. LOT AREA = 50.94± AC.

N/F VICKY D. DAVIS, TRUSTEE  
STEVEN M. DAVIS, TRUSTEE  
DAVIS FAMILY TRUST

N/F SANDRA REYNOLDS  
DEBORAH JOHANSEN



CHECKED	C.W.K.	J.H.
TECH	G.M.A.	M.C.G.
ITEM	EXISTING CONDITION PLAN	FINAL RIGHT OF WAY AREAS

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

**BROWNFIELD  
RIGHT OF WAY MAP**

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

BRIDGE NO. 0714 WIN 027530.00

REVISIONS			PLAN FILED IN PLAN BOOK				COUNTY RECORD			
NO.	DATE	DESCRIPTION	BY	NO.	GRANTOR	PAGE	INSTRUMENT	DATE	BOOK	PAGE
							COND	10-20-25	5902	59

DALE F. DOUGHTY  
ACTING COMMISSIONER  
WILLIAM A. PULVER  
CHIEF ENGINEER

DATE \_\_\_\_\_

OLD COUNTY ROAD  
BROWNFIELD OXFORD COUNTY  
FEDERAL AID PROJECT NO. 2753000

MAY 2025 RIGHT-OF-WAY MAP  
SCALE 1"= 25' SHEET 1 OF 1

D.O.T FILE NO. 9-433

SHEET NUMBER  
**26**  
OF 26

Username: MarkGenaris Date: 12/3/2025