

# 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

## TRAFFIC DATA

Current (2018) AADT ..... 2720  
 Future (2038) AADT ..... 3260  
 DHV - % of AADT ..... 11  
 Design Hour Volume ..... 359  
 Heavy Trucks (% of AADT) ..... 7  
 Heavy Trucks (% of DHV) ..... 4  
 Directional Distribution (% of DHV) ..... 60  
 18 kip Equivalent P 2.0 ..... 127  
 18 kip Equivalent P 2.5 ..... 121  
 Design Speed (mph) ..... 30

## MATERIALS

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

Reinforcing:  
 Plain Reinforcing Steel ..... ASTM A 615, Grade 60  
 Glass Fiber Reinforcing Polymer (GFRP) ..... ASTM D7957  
 Low-Carbon Chromium Steel ..... ASTM A1035, Type CS, Grade 100

Structural Steel:  
 All Material (except as noted) ..... ASTM A 709, Grade 50 (Metalized)  
 High Strength Bolts ..... ASTM F 3125, Grade A 325, Type 1 (Galvanized)  
 H-Piles ..... ASTM A572, Grade 50

## BASIC DESIGN STRESSES

Concrete:  
 Class "A" .....  $f'c = 4,000$  psi  
 Class "LP" .....  $f'c = 5,000$  psi  
 Class Fill .....  $f'c = 3,000$  psi

Reinforcing:  
 Plain Reinforcing Steel .....  $f_y = 60,000$  psi  
 Glass Fiber Reinforced Polymer .....  $f_{fu} = 100,000$  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

Structural Steel:  
 ASTM A 709, Grade 50 .....  $F_y = 50,000$  psi  
 ASTM A 709, Grade 36 .....  $F_y = 36,000$  psi  
 ASTM F 3125, Grade A 325 .....  $F_u = 120,000$  psi

## LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities & General Construction Notes	2
General Plan	3-4
Profile	5-7
Boring Location Plan	8
Interpretive Subsurface Profile	9
Boring Logs	10-11
Typical Sections	12
Highway Approach Cross - Sections	13-32
Abutment No. 1 Details	33
Abutment No. 1 Reinforcing	34
Abutment Section & Girder Support Detail	35
Abutment No. 1 Rock Socket Detail	36
Abutment No. 2 Details	37
Abutment No. 2 Reinforcing	38
Pier Details	39
Pier Reinforcing	40
Bearings	41
Framing Plan	42
Girder Elevation	43
Girder Field Splice Detail	44
Camber Detail	45
Stress & Bottom Of Slab Elevations	46
Superstructure Plan & Reinforcing	47
Superstructure Section	48
Bridge Rail Layout	49
Snow Fence Detail	50
Reinforcing Steel Schedule	51
Bridge Detour	52
Right of Way Map	53

## OAKLAND & WATERVILLE KENNEBEC COUNTY ARMSTRONG ROAD BRIDGE OVER OVER INTERSTATE - 95 RICE RIPS ROAD FEDERAL PROJECT NO. 2350500 PROJECT LENGTH 0.133 mi. BRIDGE NO. 5815

## UTILITIES

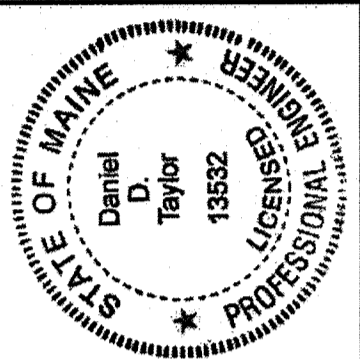
Spectrum  
 Central Maine Power  
 Consolidated Communications  
 Summit Natural Gas of Maine

## MAINTENANCE OF TRAFFIC

Bridge will be closed to traffic during construction with traffic detoured. Temporary lane shifts and/or single lane closures on I-95 are anticipated during certain construction activities.

<b>PROJECT LOCATION</b>	Armstrong Road Bridge (#5815) over Interstate 95. Located 0.05 of a mile east of Marston Road. Lat. 44°-33'-58" N, Long 69°-40'-9" W
<b>PROGRAM AREA</b>	Highway Bridge - Traditional
<b>OUTLINE OF WORK</b>	Bridge Replacement

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
APPROVED: [Signature]  
DATE: 12-7-22  
COMMISSIONER: [Signature]  
CHIEF ENGINEER: [Signature]



SIGNATURE: [Signature]  
13632  
P.E. NUMBER  
11/29/2022  
DATE

PROGRAM	Bridge
PROJECT MANAGER	Devon Eaton
DESIGNER	Erin Brewer
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 23505.00

2350500

OAKLAND & WATERVILLE  
ARMSTRONG ROAD BRIDGE  
TITLE SHEET

SHEET NUMBER  
**1**  
OF 53

Date: 11/29/2022

Username: devan.c.eaton

Division: BRDGE

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

Date: 12/18/2022

Username: devan.c.eaton

Division: BRIDGE

Filename: ... \002\_Estimate\_General-Notes.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.13	REMOVING EXISTING RAILINGS (RETAINED BY DEPARTMENT)	622	LF
202.19	REMOVING EXISTING BRIDGE (CONCRETE: 470 CY & STEEL: 144 T)	1	LS
202.202	REMOVING PAVEMENT SURFACE	375	SY
203.20	COMMON EXCAVATION	1,220	CY
203.24	COMMON BORROW	1000	CY
203.25	GRANULAR BORROW	600	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	647	CY
206.092	STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	8	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	1,130	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	182	T
403.209	HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, ISLANDS, & INCIDENTALS)	8	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	250	T
409.15	BITUMINOUS TACK COAT - APPLIED	80	G
501.231	DYNAMIC LOADING TEST	1	EA
501.502	ROCK SOCKETED H-PILES 117 LBS/FT. IN PLACE	90	LF
501.54	STEEL H-BEAM PILES 117 LBS/FT. DELIVERED	220	LF
501.541	STEEL H-BEAM PILES 117 LBS/FT. IN PLACE	130	LF
501.804	DRILLING EQUIPMENT MOBILIZATION	1	LS
501.81	PREDRILLING HOLES FOR PILES	55	LF
501.90	PILE TIPS	5	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (123 CY)	1	LS
502.239	STRUCTURAL CONCRETE PIERS (95 CY)	1	LS
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGE (336 CY)	1	LS
502.291	SAW CUT GROOVING (9700 SF)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLABS (27 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (27 CY)	1	LS
502.565	CONCRETE FILL	41	CY
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	19,590	LB
503.13	REINFORCING STEEL, PLACING	19,590	LB
503.19	LOW-CARBON, CHROMIUM REINFORCEMENT - FABRICATED & DELIVERED	27,140	LB
503.20	LOW-CARBON, CHROMIUM REINFORCEMENT - PLACING	27,140	LB
504.702	STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED (505,216 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION (505,216 LBS)	1	LS
505.08	SHEAR CONNECTORS (2,530 EA)	1	LS
506.9104	THERMAL SPRAY COATING - SHOP APPLIED (505,216 LBS)	1	LS
507.0821	BRIDGE RAILING, 3 BAR (606 LF)	1	LS
507.0822	STEEL APPROACH RAIL, 3 BAR	4	EA
511.07	COFFERDAM, PIER	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (1600 SY)	1	LS
523.52	BEARING INSTALLATION	5	EA
523.5551	POT OR DISC BEARINGS, FIXED	5	EA
526.301	PORTABLE CONCRETE BARRIER TYPE I (150 LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	2	UN
530.30	GFRP, REINFORCEMENT BARS, FAB & DEL	80,270	LF
530.31	GFRP, REINFORCEMENT BARS, PLACING	80,270	LF
606.1301	3" W-BM GR, MID-WAY SPLICE-SGL FACED	365.25	LF
606.1303	3" W-BM GR, MID-WAY SPLICE-15' RAD AND LESS	12.5	LF
606.1304	3" W-BM GR, MID-WAY SPLICE-OVER 15' RAD	62.5	LF
606.1305	3" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	2	EA
606.1721	BRIDGE TRANSITION - TYPE I	4	EA
606.2593	ANCHORAGE ASSEMBLY - MIDWAY SPLICE	1	EA
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	2	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
607.17	CHAIN LINK FENCE - 6 FOOT	160	LF
607.183	CHAIN LINK SNOW FENCE 33 INCH (268 LF)	1	LS
607.34	BRACING ASSEMBLY CHAIN LINK FENCE	10	EA
610.08	PLAIN RIPRAP	670	CY
610.18	STONE DITCH PROTECTION	19	CY
613.319	EROSION CONTROL BLANKET	136	SY
615.07	LOAM	110	CY
618.14	SEEDING METHOD NUMBER 2	17	UN
619.12	MULCH	17	UN
619.14	EROSION CONTROL MIX	210	CY
620.58	EROSION CONTROL GEOTEXTILE	767	SY
620.66	DRAINAGE GEOCOMPOSITE	63	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	2055	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
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	HR
639.18	FIELD OFFICE TYPE A	1	EA
652.312	TYPE III BARRICADE	4	EA
652.33	DRUMS	25	EA
652.34	CONES	50	EA
652.35	CONSTRUCTION SIGNS	650	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (150 DAYS)	1	LS
652.38	FLAGGER	100	HR
652.381	TRAFFIC OFFICER	100	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
660.21	ON-THE-JOB TRAINING (BID)	1000	HR

### GENERAL CONSTRUCTION NOTES

- During construction, the road will be closed to traffic for a time period specified in the Special Provisions.
- For easements, construction limits and right of way lines, refer to Right of Way Map.
- The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.
- All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain the property of the Department. See Special Provision Section 202, Removing Existing Railings-Retained by Department.
- 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.
- The removal of chain link fence shall be considered incidental to the contract.
- 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 Item No. 619.14, Erosion Control Mix.
- Place a 24-in. 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.
- Extended-use Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed, where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract items.
- Protective Coating for Concrete Surfaces shall be applied to the following areas:

All exposed surfaces of concrete curbs, Fascias down to the drip notch, Concrete wearing surfaces, Top of abutment backwalls and wingwalls, and To one foot below the ground on vertical walls against earth.

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

17. 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.

18. The project geotechnical reports titled: Geotechnical Addendum #1 for Armstrong Rd. Bridge over I-95, Waterville, Maine dated August 26, 2022, and Geotechnical Design Report, Armstrong Rd. Bridge over I-95, Waterville, Maine, Soils Report 2020-38, dated October 7, 2020, can be accessed at the MaineDOT web address.

19. 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.

20. 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.

21. 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. 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.

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

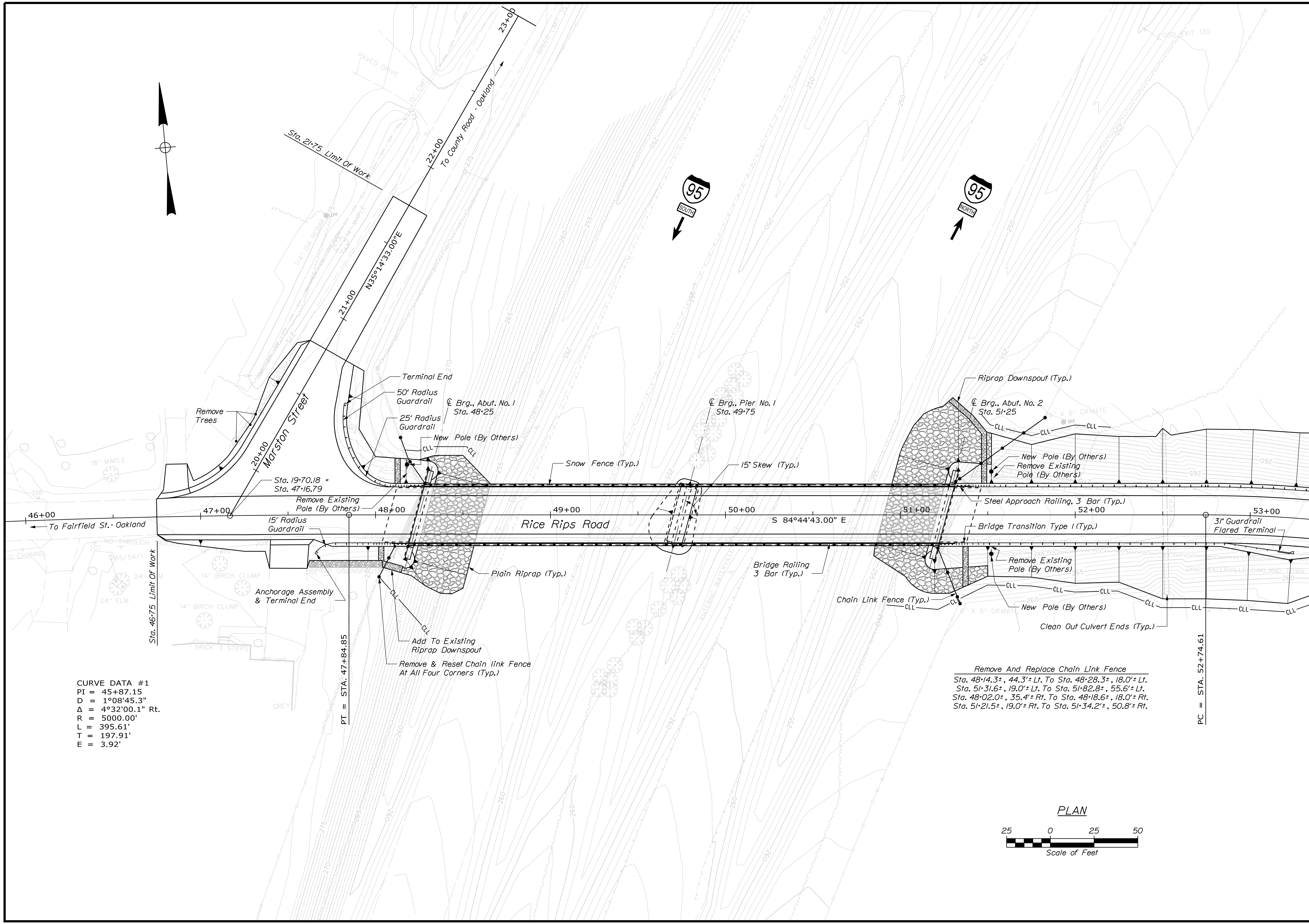
23. At the intersection of Campus Drive, Rice Rips Road, and Washington Street a roundabout project was completed in 2022. Due to this roadway reconstruction, the existing roadway conditions at Sta. 53+75 to Sta. 56+96 may be different than the survey data shown.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500		WIN		23505.00		BRIDGE NO. 6615		BRIDGE PLANS	
ARMSTRONG ROAD BRIDGE		OVER INTERSTATE - 95		OAKLAND & WATERVILLE KENNEBEC COUNTY		ESTIMATED QUANTITIES AND GENERAL CONSTRUCTION NOTES		SHEET NUMBER		2		OF 53	
PROJ. MANAGER	D. Eaton	DESIGN-DETAILED	E. Brewer	CHECKED-REVIEWED	D. Eaton	DESIGNS-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES	DATE	P.E. NUMBER
DATE	OCT 2022	DATE	NOV 2022	DATE		DATE		DATE		DATE		DATE	
BY	M.R.P.	BY	J. LeVail	DATE		DATE		DATE		DATE		DATE	

Date: 12/18/2022

Username: devon.c.eaton

Filename: ... \00\BRIDGE\MSTA\003\_BDP\plan1.dgn Division: BRIDGE

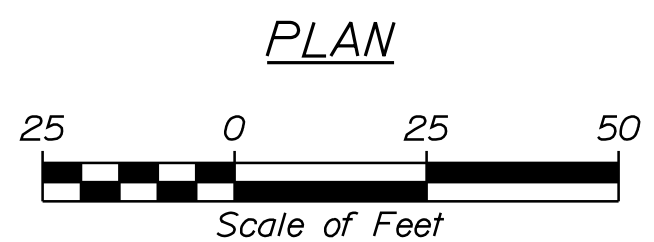


**CURVE DATA #1**  
 PI = 45+87.15  
 D = 1°08'45.3"  
 Δ = 4°32'00.1" Rt.  
 R = 5000.00'  
 L = 395.61'  
 T = 197.91'  
 E = 3.92'

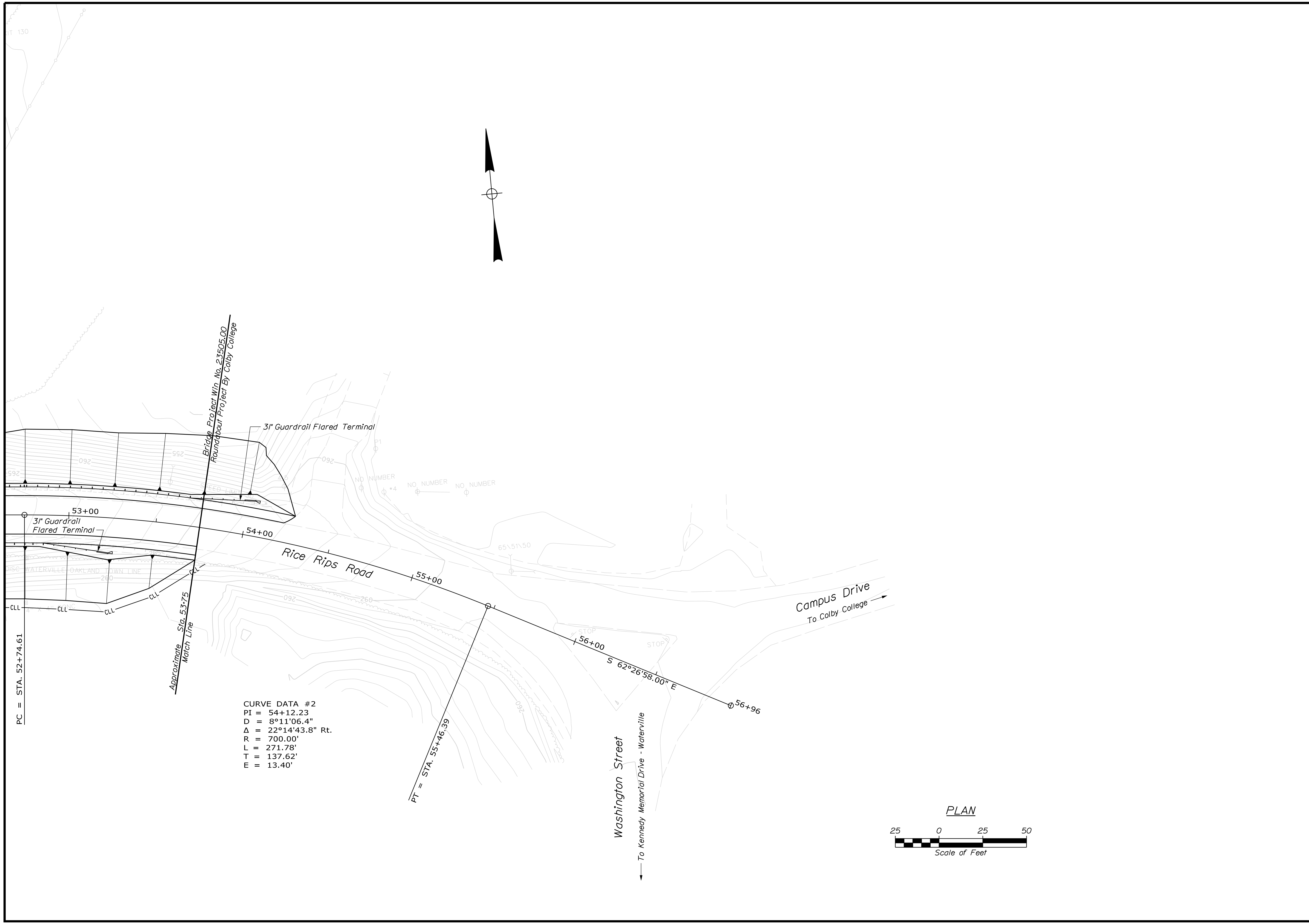
PT = STA. 47+84.85

PC = STA. 52+74.61

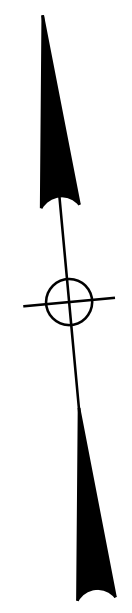
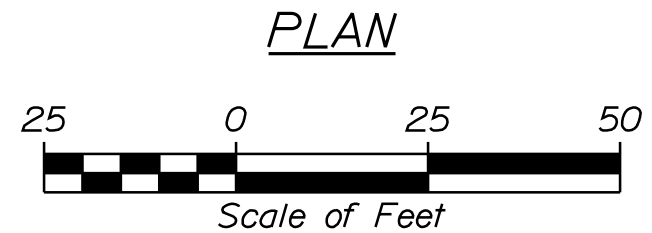
*Remove And Replace Chain Link Fence*  
 Sta. 48+14.3±, 44.3± Lt. To Sta. 48+28.3±, 18.0± Lt.  
 Sta. 51+31.6±, 19.0± Lt. To Sta. 51+82.8±, 55.6± Lt.  
 Sta. 48+02.0±, 35.4± Rt. To Sta. 48+18.6±, 18.0± Rt.  
 Sta. 51+21.5±, 19.0± Rt. To Sta. 51+34.2±, 50.8± Rt.



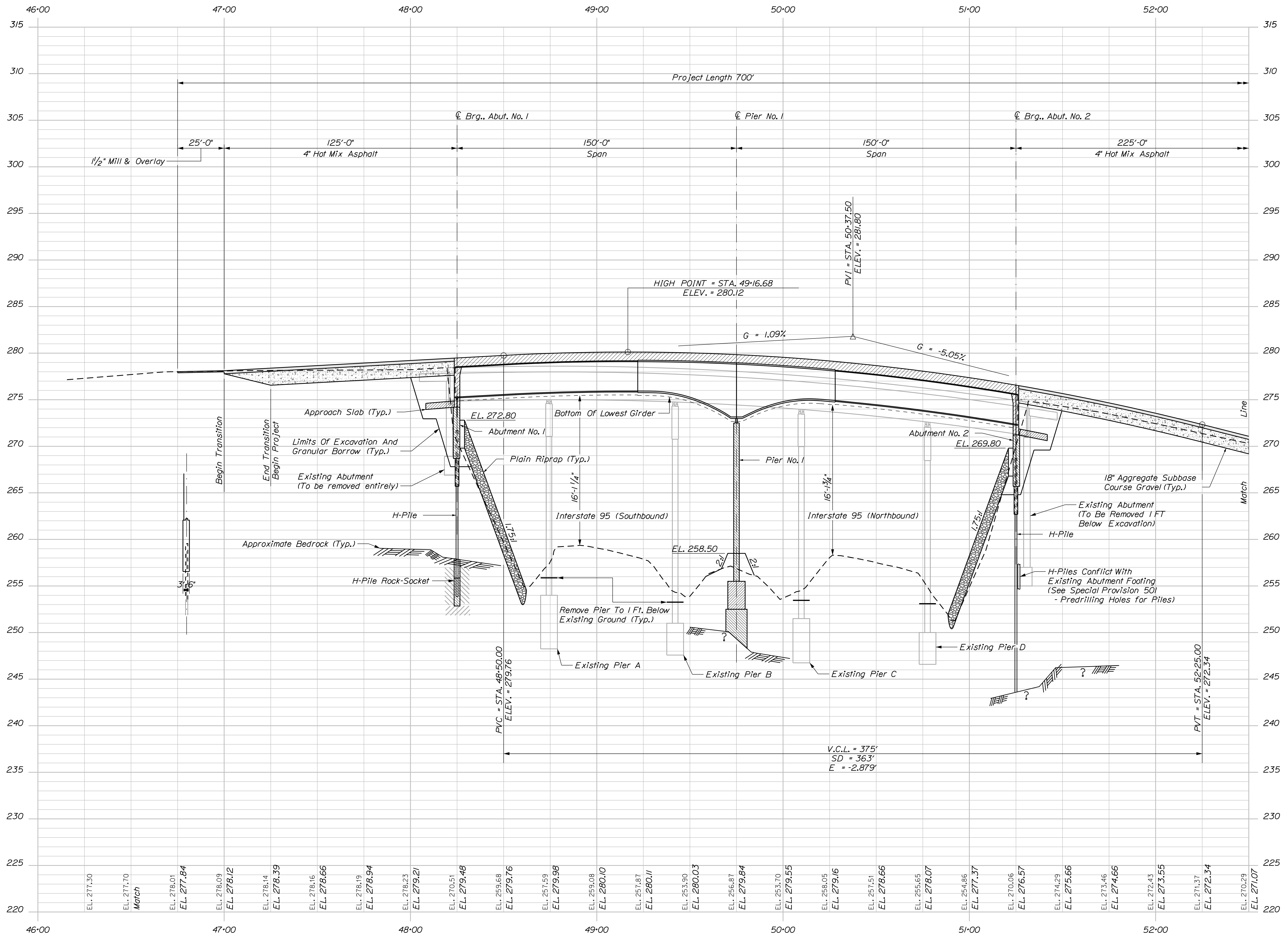
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		BRIDGE NO. 6815	
GENERAL PLANS 1 OF 2		WIN 23505.00	
SHEET NUMBER		BRIDGE PLANS	
3		DATE	
OF 53		P.E. NUMBER	
		SIGNATURE	
		DATE	
		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		FIELD CHANGES	
		DESIGN DETAILED	
		CHECKED/REVIEWED	
		M.A.P.	
		D. Eaton	
		BY	
		D. Eaton	
		OCT 2022	
		DATE	



CURVE DATA #2  
 PI = 54+12.23  
 D = 8°11'06.4"  
 Δ = 22°14'43.8" Rt.  
 R = 700.00'  
 L = 271.78'  
 T = 137.62'  
 E = 13.40'



STATE OF MAINE		DATE	
DEPARTMENT OF TRANSPORTATION		OCT 2022	
2350500		NOV 2022	
BRIDGE NO. 6815		SIGNATURE	
WIN		P.E. NUMBER	
23505.00		DATE	
ARMSTRONG ROAD BRIDGE		BY	
OVER INTERSTATE - 95		D. Eaton	
OAKLAND & WATERVILLE KENNEBEC COUNTY		E. Brewer	
GENERAL PLANS 2 OF 2		M.A.P.	
SHEET NUMBER		J. Leovich	
4		DESIGN DETAILED	
OF 53		CHECKED/REVIEWED	
		DESIGN DETAILED	
		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		FIELD CHANGES	



RICE RIPS ROAD PROFILE (1 of 2)

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 2350500  
 WIN  
 23505.00  
 BRIDGE NO. 6815  
 BRIDGE PLANS

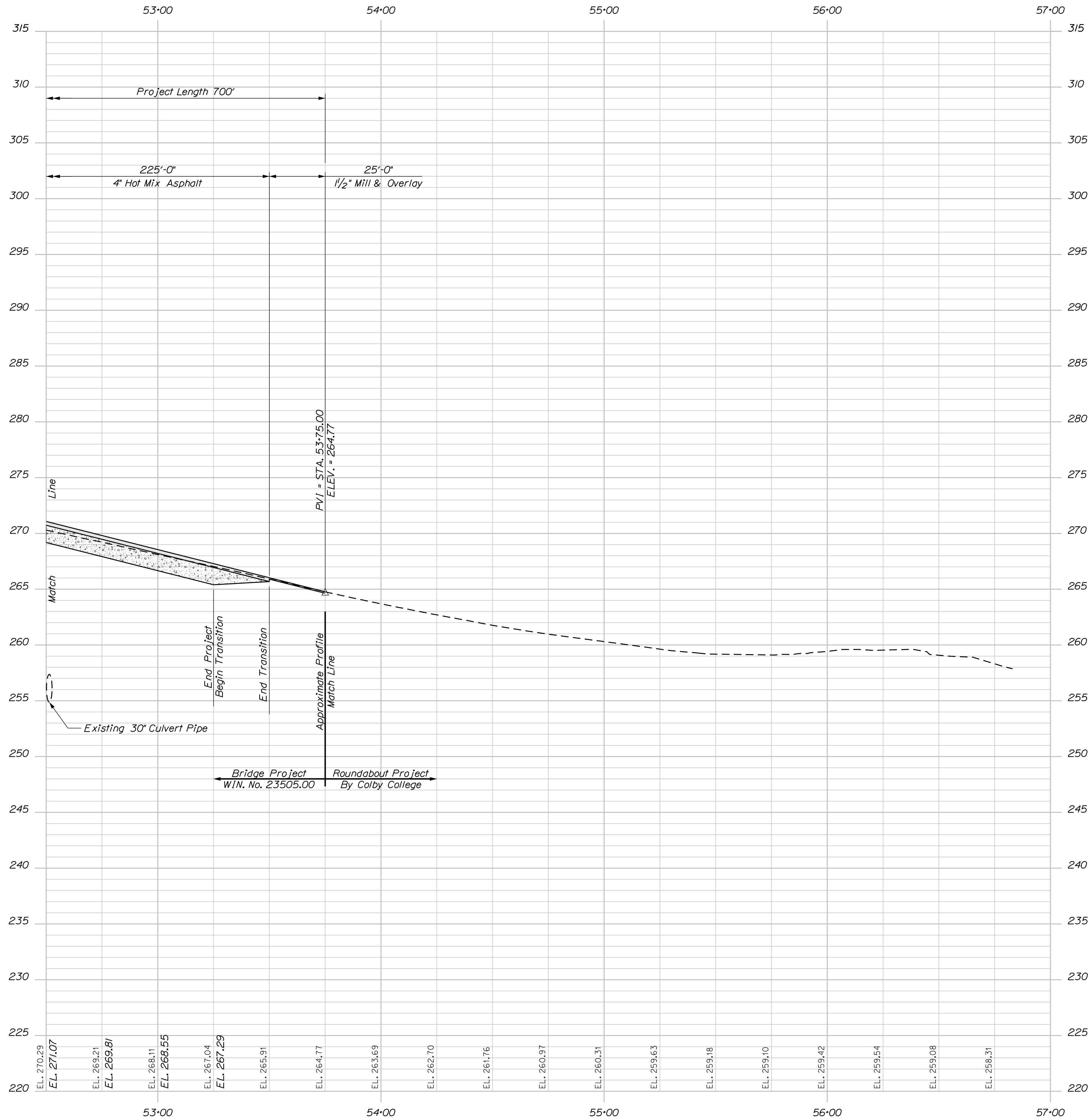
DESIGNER: D. Eaton  
 CHECKED: E. Brewer  
 M.A.P.: J. Leveit  
 DATE: OCT 2022  
 DATE: NOV 2022  
 SIGNATURE: \_\_\_\_\_  
 P.E. NUMBER: \_\_\_\_\_  
 DATE: \_\_\_\_\_

PROJ. MANAGER	D. Eaton	BY	DATE
DESIGN DETAILED	E. Brewer		OCT 2022
CHECKED/REVIEWED	D. Eaton		NOV 2022
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE  
 OVER INTERSTATE - 95  
 OAKLAND & WATERVILLE KENNEBEC COUNTY  
 PROFILE 1 OF 3

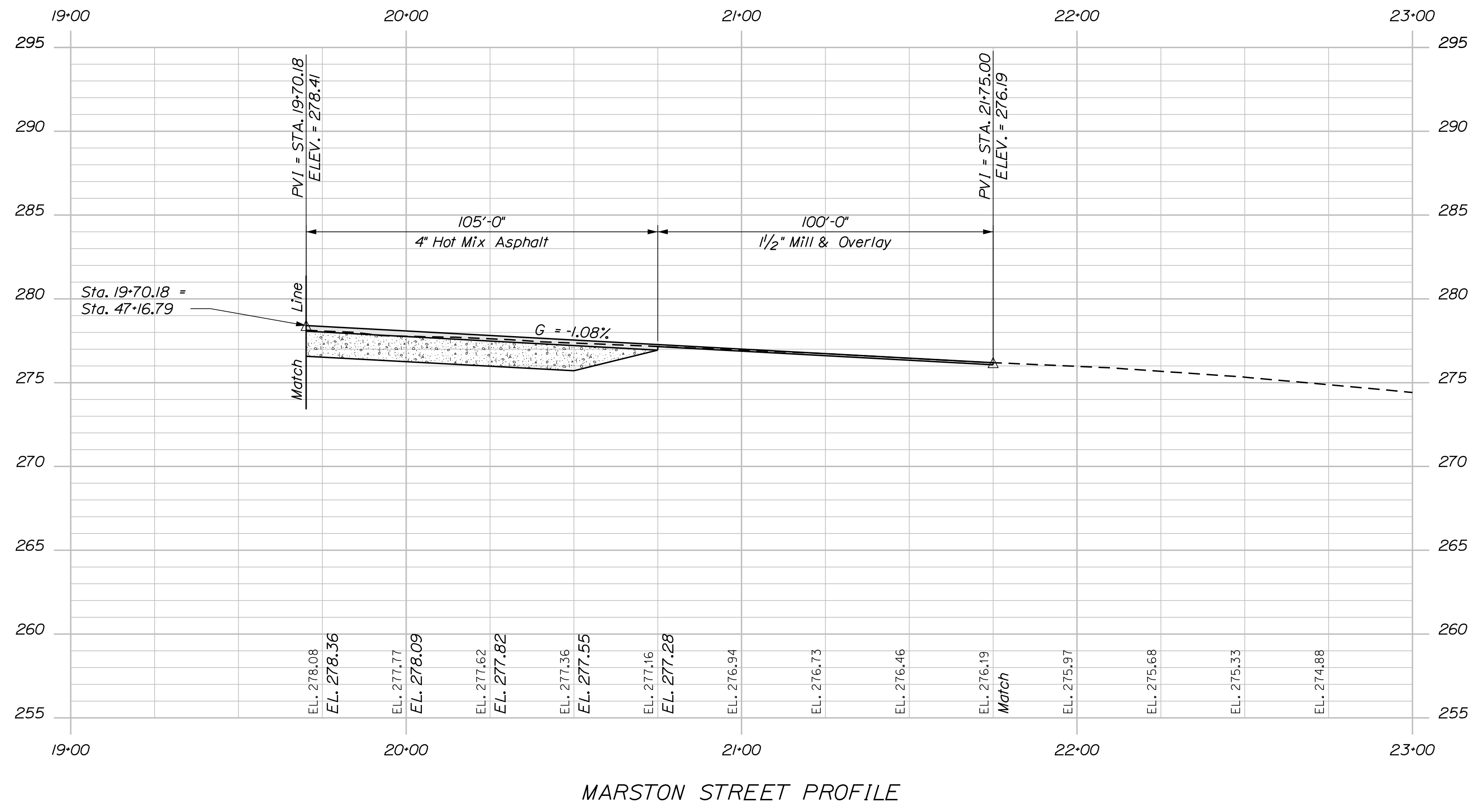
SHEET NUMBER

5



RICE RIPS ROAD PROFILE (2 of 2)

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
<b>2350500</b>	
BRIDGE NO. 6815	WIN <b>23505.00</b>
BRIDGE PLANS	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY	
<b>PROFILE 2 OF 3</b>	
SHEET NUMBER	
<b>6</b>	
OF 53	
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	BY M.A.P. J. Levitt DATE OCT 2022 NOV 2022 SIGNATURE P.E. NUMBER DATE



SHEET NUMBER

2

OF 53

**ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY**

**PROFILE 3 OF 3**

PROJ. MANAGER	D. Eaton	BY	DATE
DESIGN-DETAILED	E. Brewer	M.A.P.	OCT 2022
CHECKED-REVIEWED	D. Eaton	J. LeVitt	NOV 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**2350500**

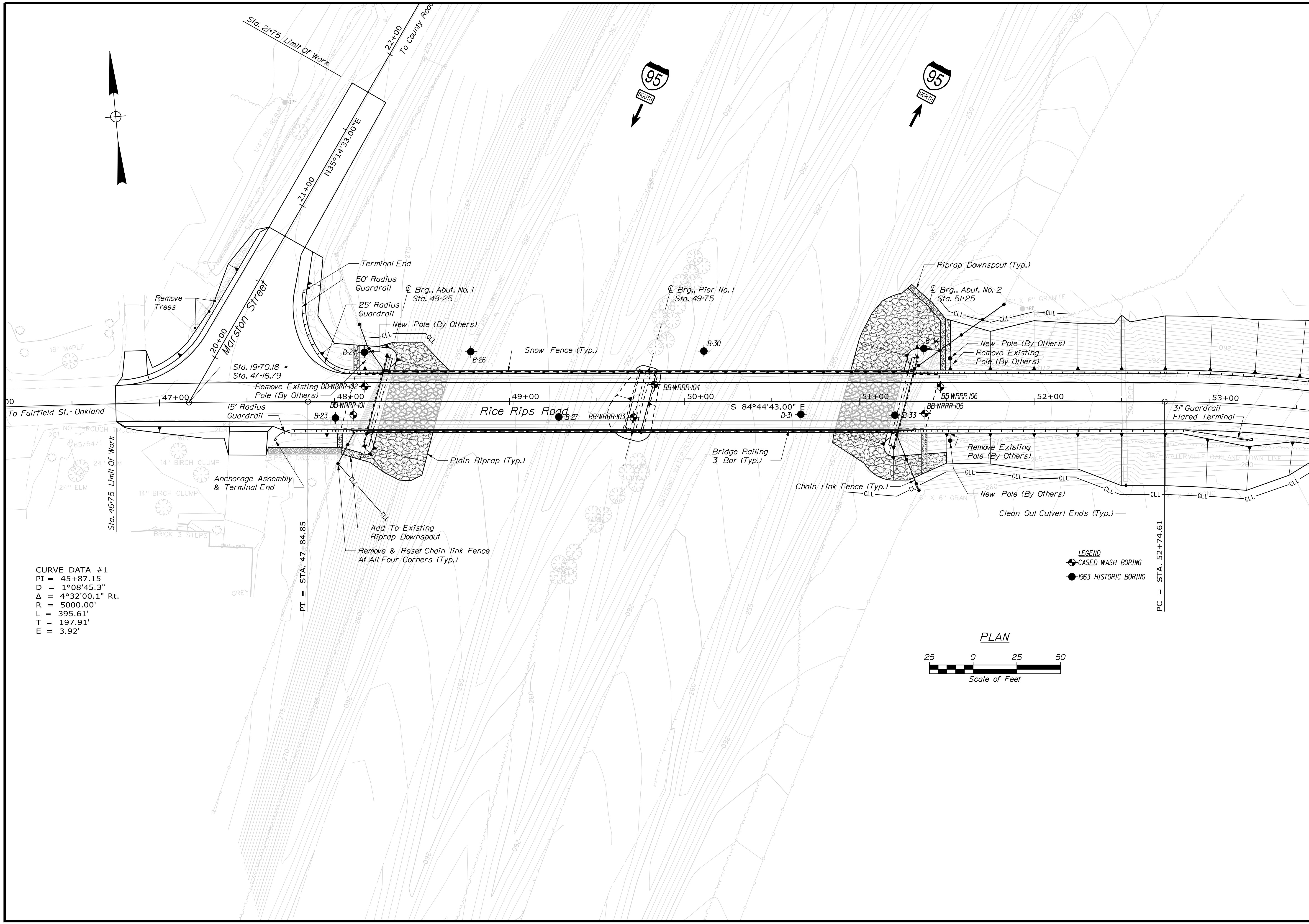
BRIDGE NO. 6815      WIN      23505.00      BRIDGE PLANS

Date: 12/8/2022

Username: devan.c.eaton

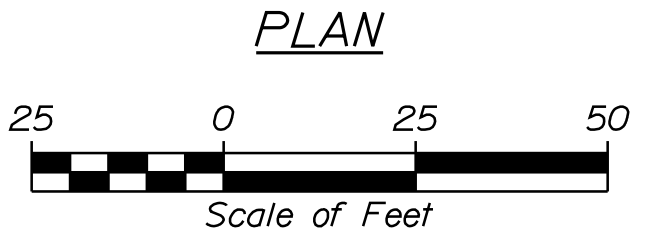
Division: BRIDGE

Filename: ... \MSTA\008\_BLP1\HISTORIC .dgn



CURVE DATA #1  
 PI = 45+87.15  
 D = 1°08'45.3"  
 Δ = 4°32'00.1" Rt.  
 R = 5000.00'  
 L = 395.61'  
 T = 197.91'  
 E = 3.92'

LEGEND  
 ● CASED WASH BORING  
 ● 1963 HISTORIC BORING



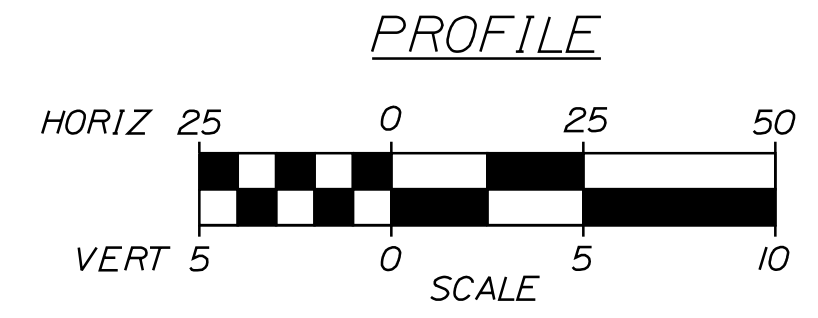
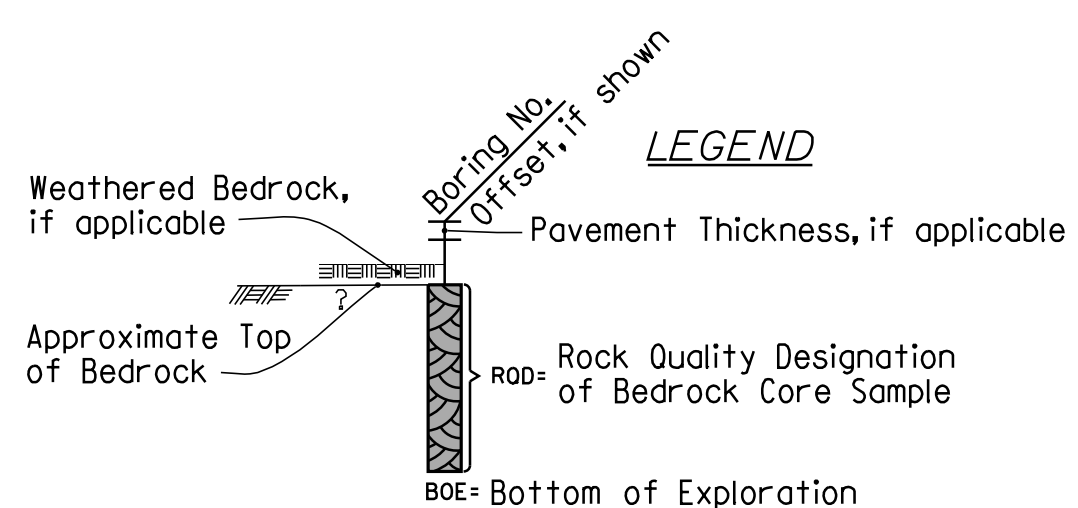
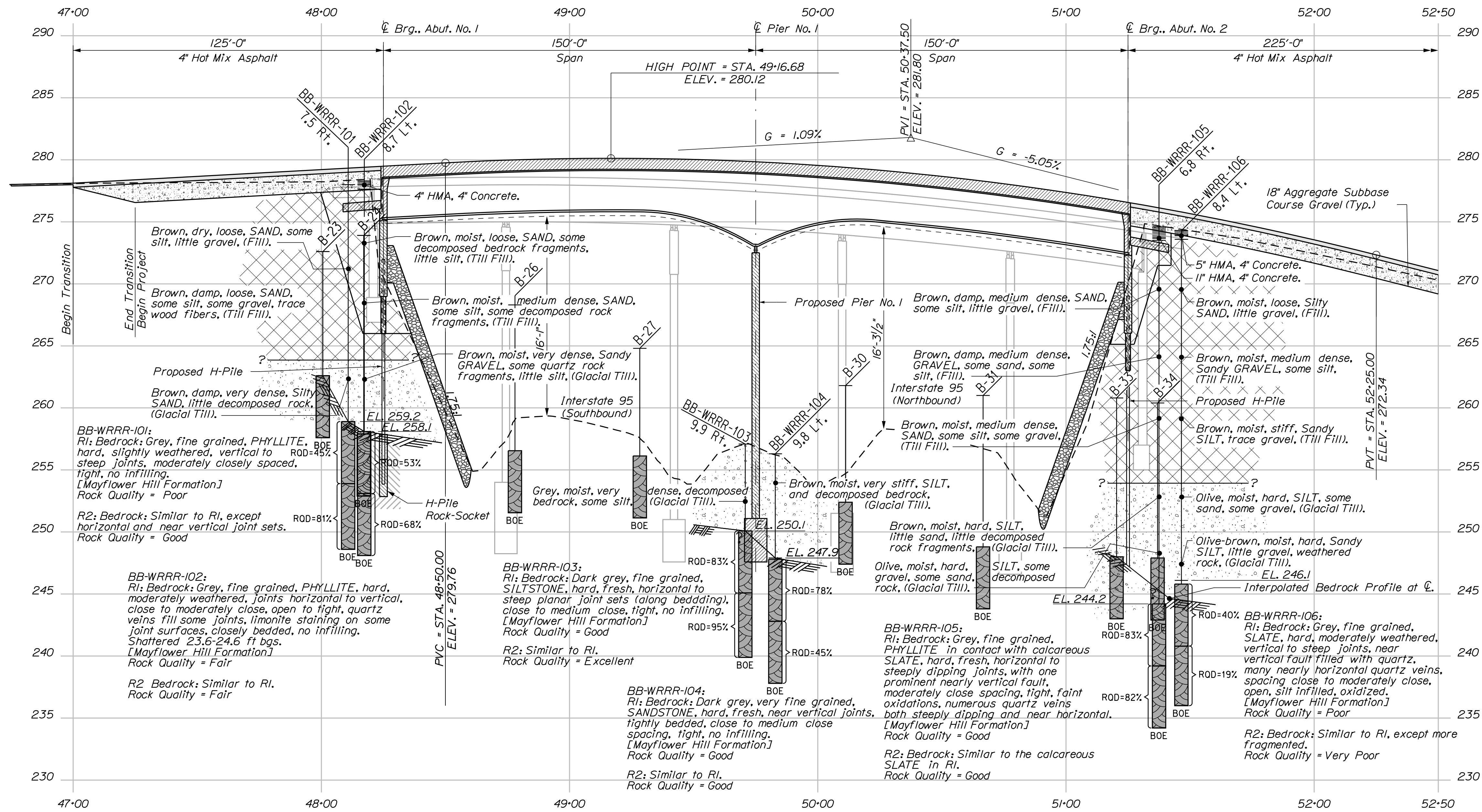
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		BRIDGE NO. 8815 WIN 23505.00	
BORING LOCATION PLAN		BRIDGE PLANS	
PROJ. MANAGER D. Eaton	DATE OCT 2022	SIGNATURE	P.E. NUMBER
CHECKED/REVIEWED E. Brewer	M.A.P.	T. WHITE	NOV 2022
DESIGN/DETAILED L. KRUSINSKI	DESIGN/DETAILED		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SHEET NUMBER		DATE	
8			
OF 53			

Username: devon.c.eaton

Date: 12/18/2022

Division: BRIDGE

Filename: ... \MSTA\009\_ISP1\HISTORIC.dgn



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 and bedrock transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500	WIN	23505.00
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		INTERPRETIVE SUBSURFACE PROFILE		
SHEET NUMBER		9		
BRIDGE NO. 6815		BRIDGE PLANS		
PROJ. MANAGER	D. Eaton	BY	E. Eaton	DATE
CHECKED-REVIEWED	E. Brewer	M.R.P.	OCT 2022	SIGNATURE
DESIGN DETAILED	L. KRUSINSKI	T. WHITE	NOV 2022	P.E. NUMBER
REVISIONS 1				DATE
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				



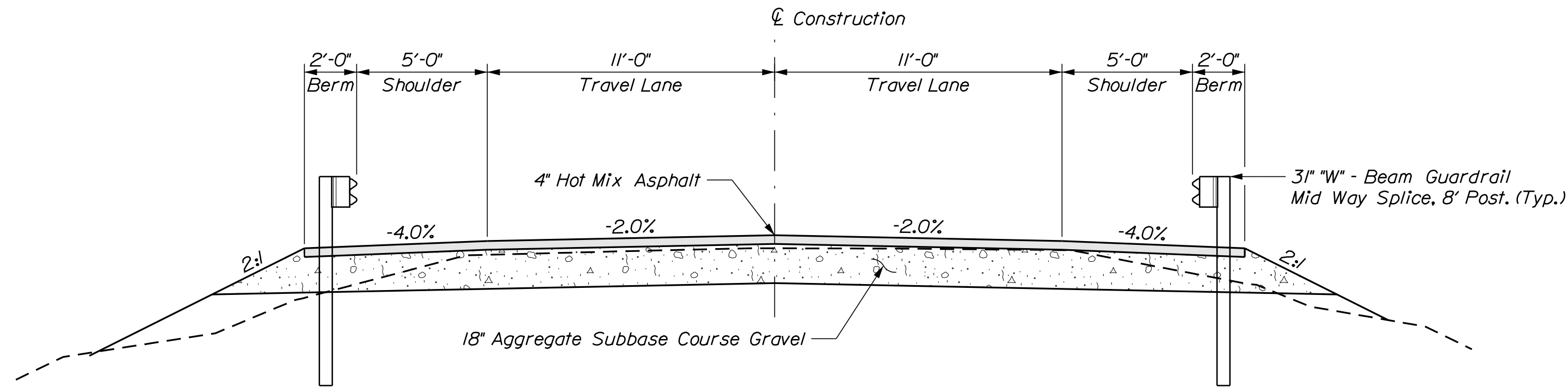


Date: 12/18/2022

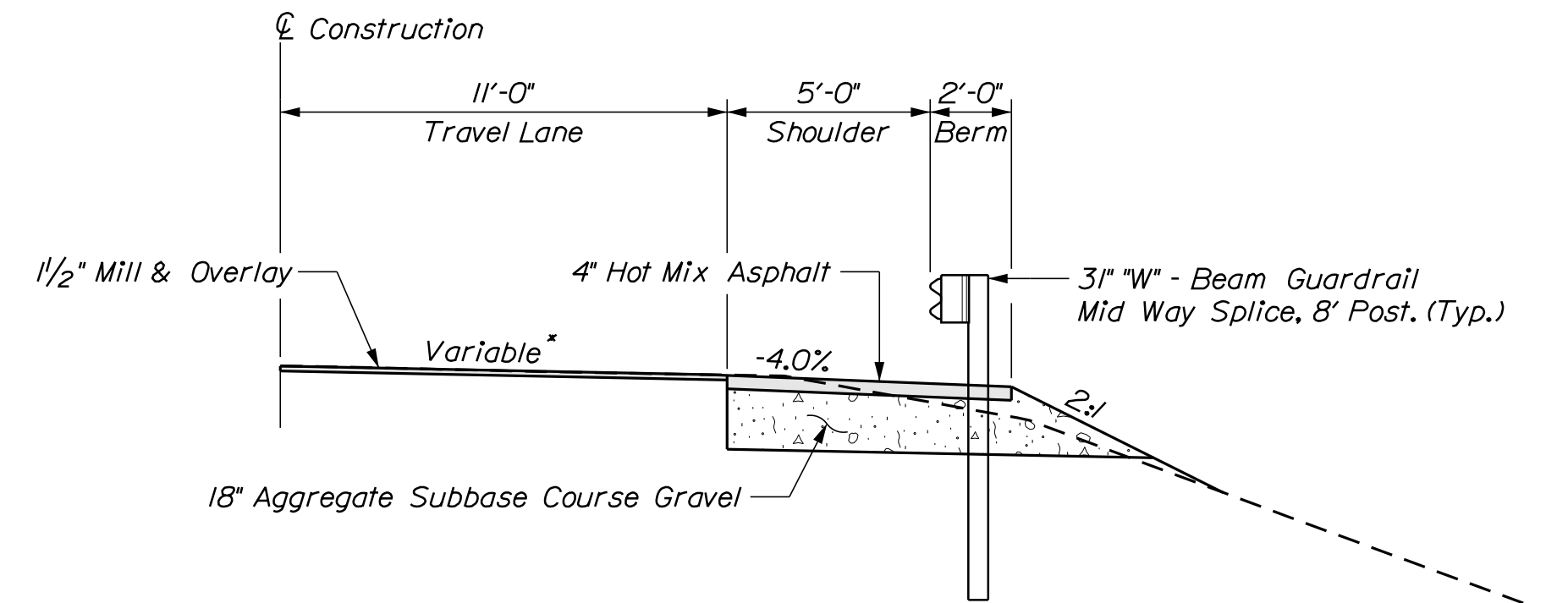
Username: devon.c.eaton

Division: BRIDGE

Filename: ... \BRIDGE\NMSTA\012\_Btypical.dgn

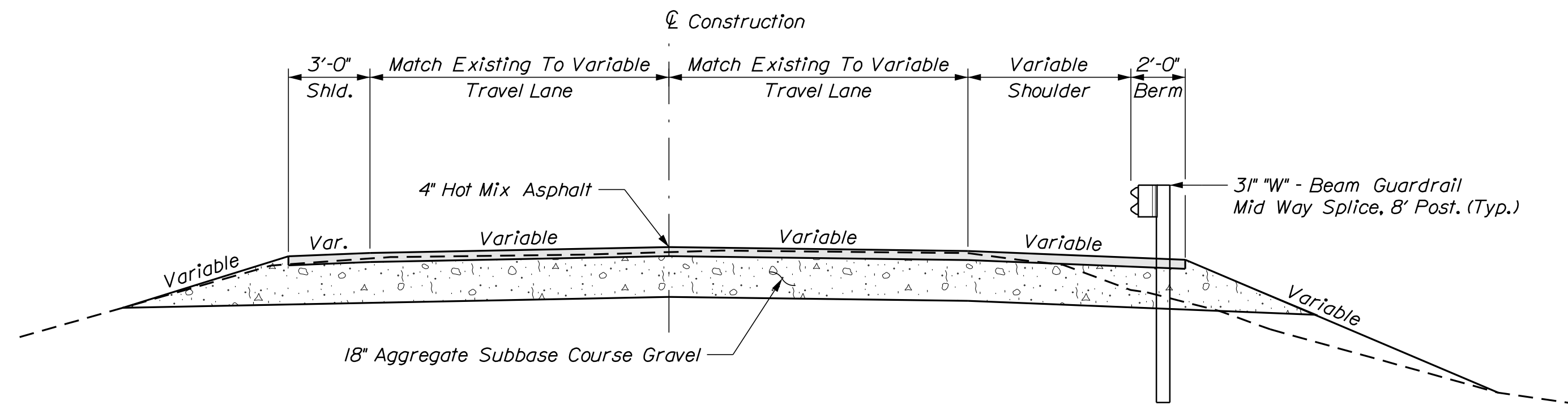


TYPICAL APPROACH SECTION  
Rice Rips Road

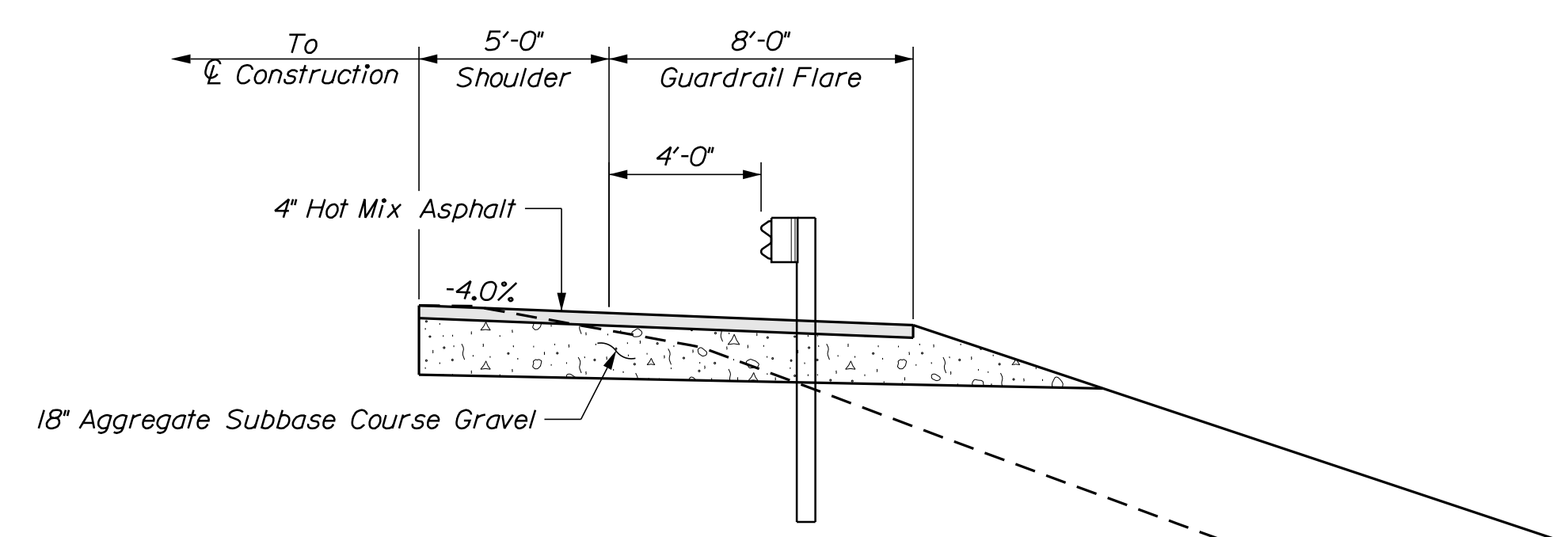


TYPICAL APPROACH SECTION  
Rice Rips Road

Shoulder Work In Mill And Overlay Areas  
\* See Cross Sections For Slopes



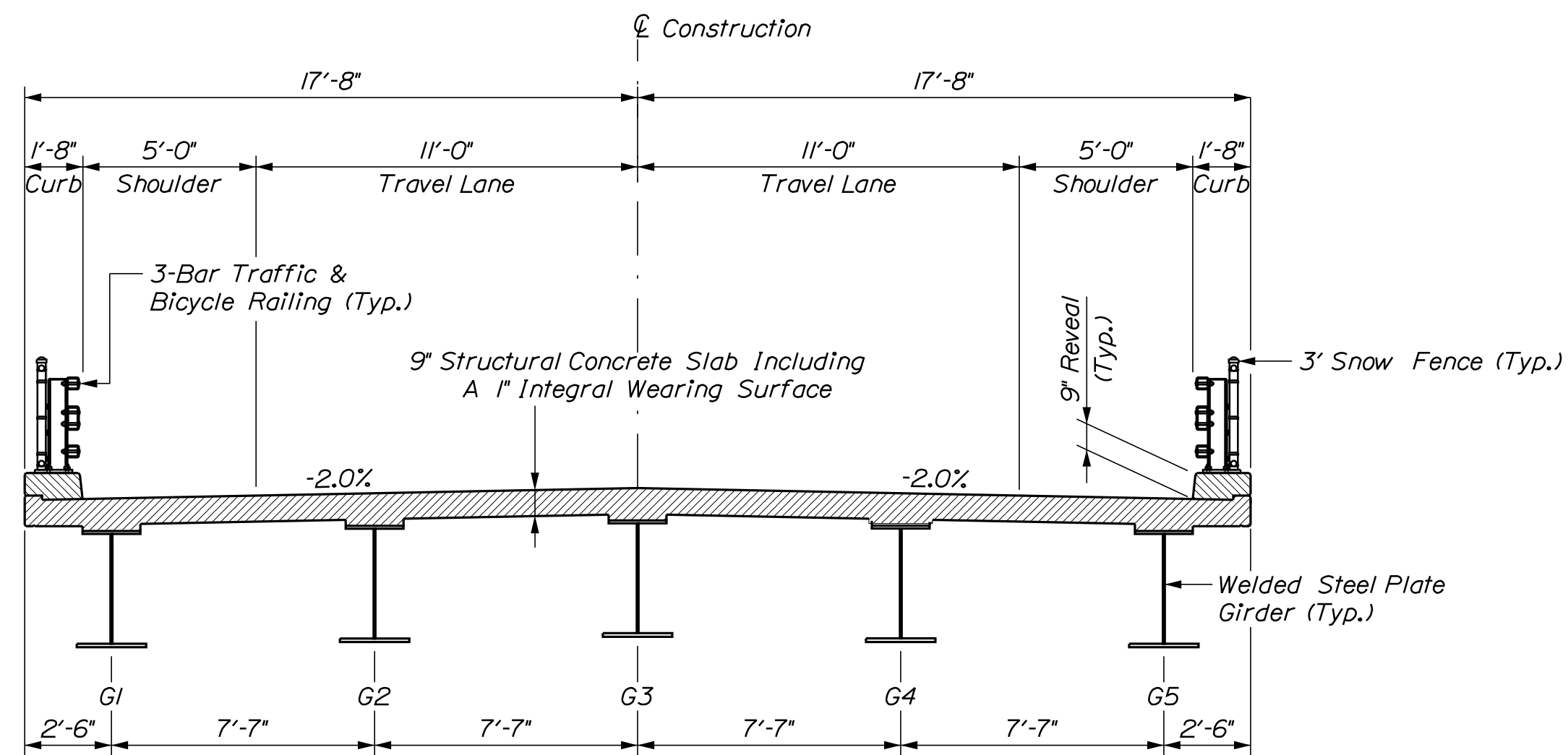
TYPICAL APPROACH SECTION  
Marston Street



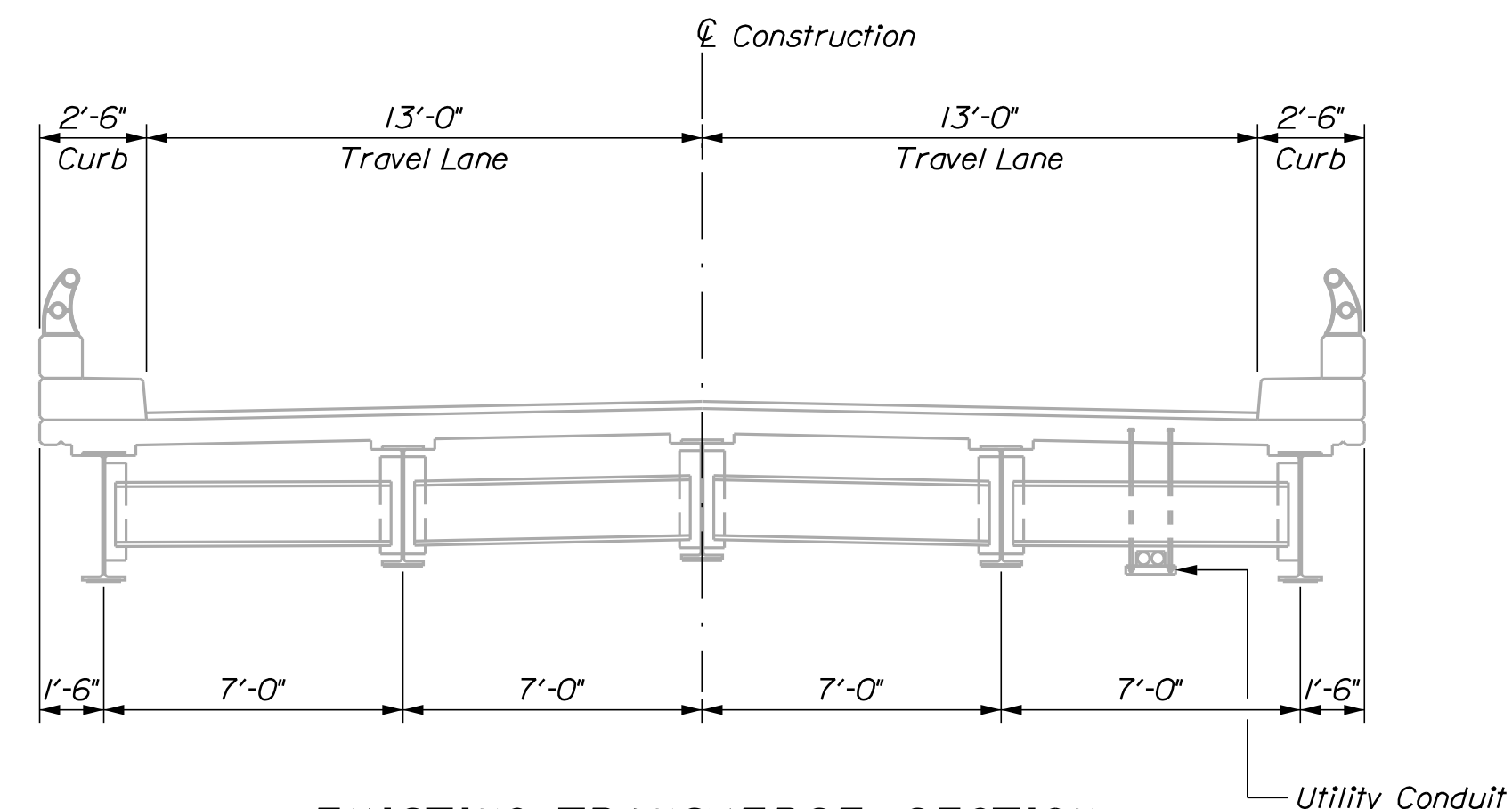
TYPICAL APPROACH SECTION  
Rice Rips Road

Guardrail Flare (Non Standard)

Sta. 53+23.76 Rt.  
Sta. 54+03.98 LT.



PROPOSED TRANSVERSE SECTION



EXISTING TRANSVERSE SECTION

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

2350500

WIN

BRIDGE NO. 6815

BRIDGE PLANS

SIGNATURE

DATE

BY

D. Eaton

DESIGN DETAILED

CHECKED/REVIEWED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

P.E. NUMBER

DATE

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY

TYPICAL SECTIONS

SHEET NUMBER

12

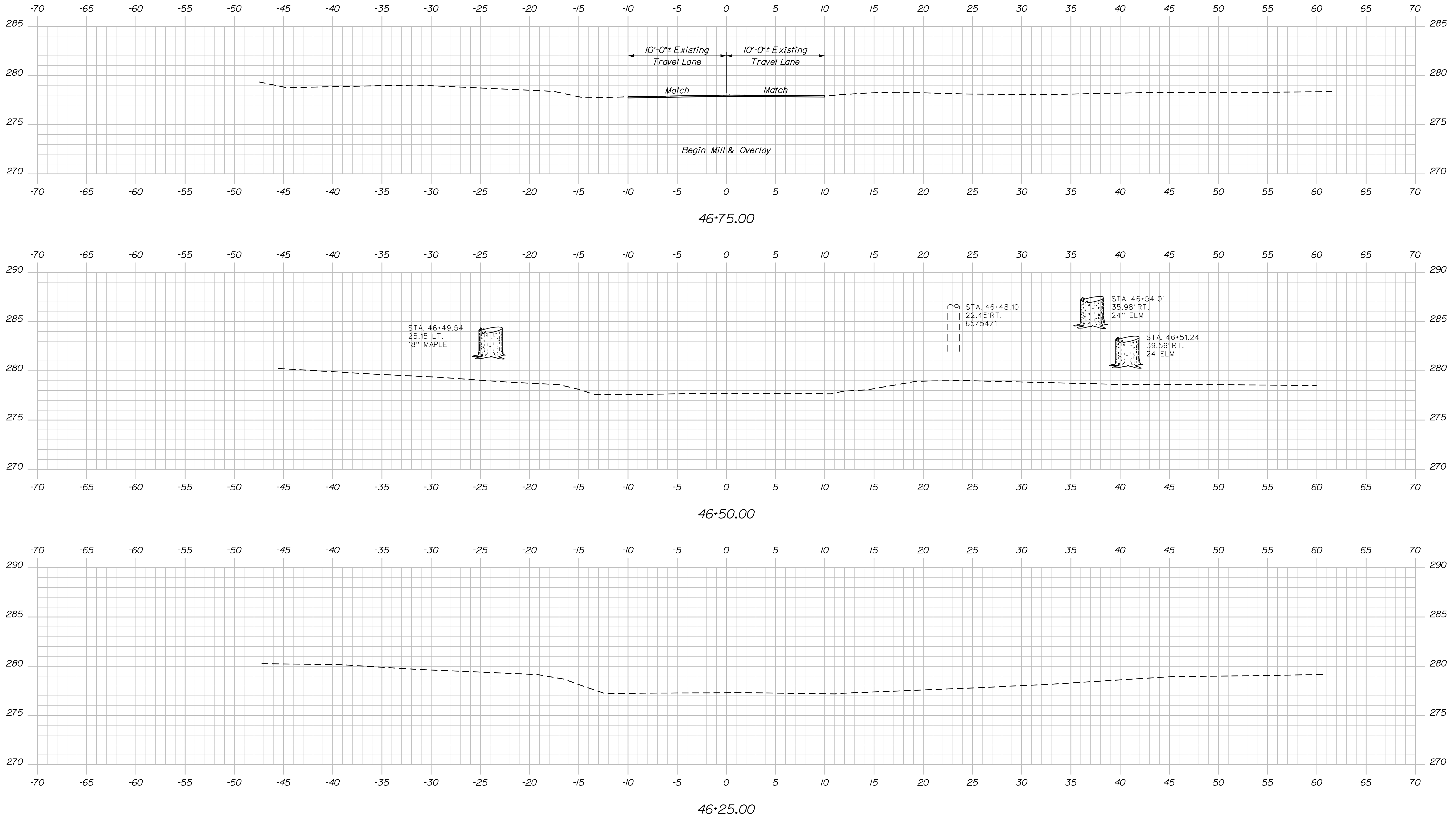
OF 53

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAO13\_XSECT\_46+25\_001.dgn



STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**2350500**  
 WIN  
 23505.00  
 BRIDGE NO. 6815  
 BRIDGE PLANS

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

DATE  
 OCT 2022  
 NOV 2022

BY  
 M.A.P.  
 J. LeVith

D. Eaton  
 E. Brewer

SIGNATURE  
 P.E. NUMBER  
 DATE

ARMSTRONG ROAD BRIDGE  
 OVER INTERSTATE - 95  
 OAKLAND & WATERVILLE KENNEBEC COUNTY

**CROSS SECTIONS**

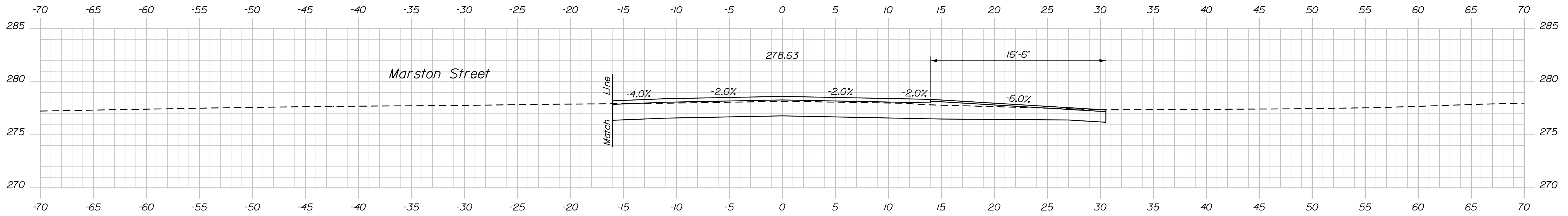
SHEET NUMBER  
**13**  
 OF 53

Date: 12/18/2022

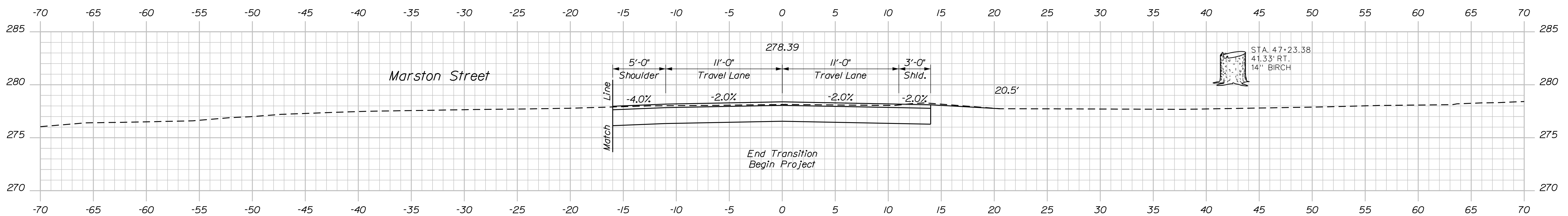
Username: devon.c.eaton

Division: BRIDGE

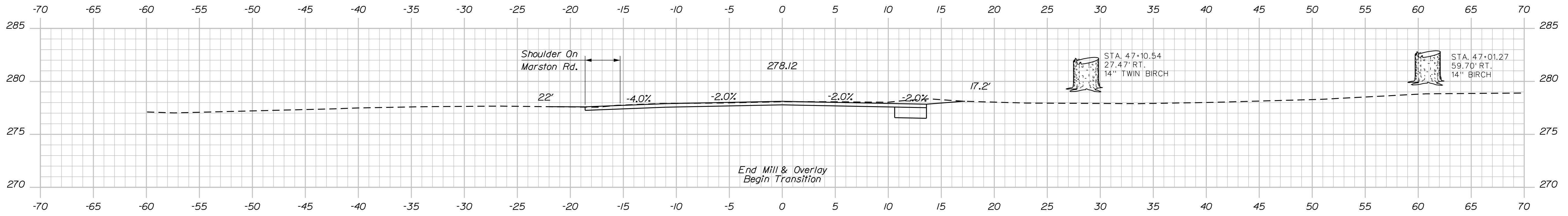
Filename: ... \MST\A014\_XSECT\_46-86\_002.dgn



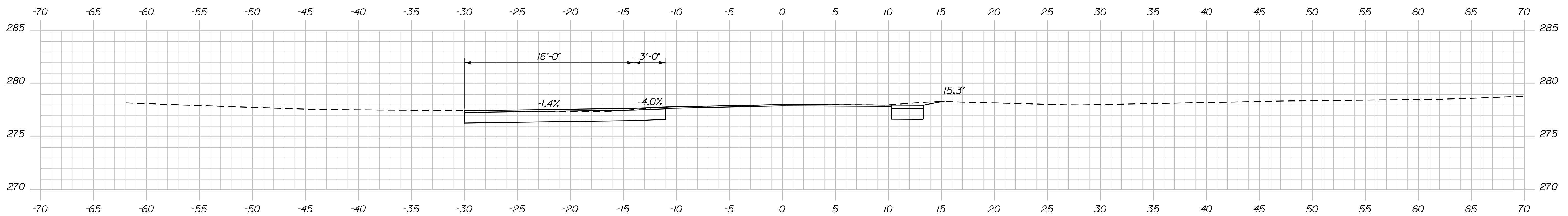
47+47.00



47+25.00



47+00.00



46+86.63

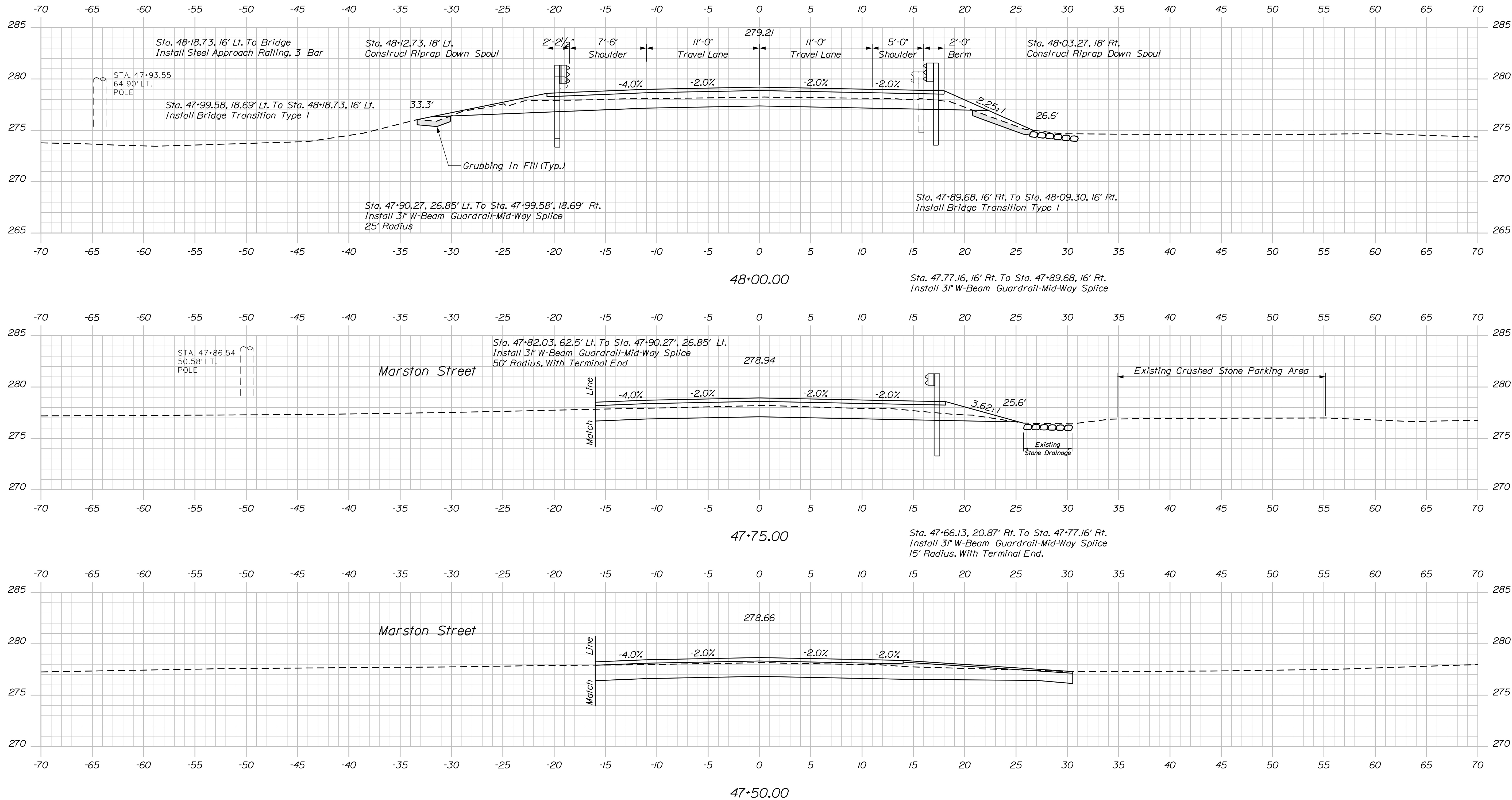
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE		OAKLAND & WATERVILLE KENNEBEC COUNTY		CROSS SECTIONS	
OVER INTERSTATE - 95		SHEET NUMBER		14	
BRIDGE NO. 6815		WIN		23505.00	
BRIDGE PLANS		SIGNATURE		P.E. NUMBER	
DATE		DATE		DATE	
BY		BY		BY	
M.A.P.		M.A.P.		M.A.P.	
J. LeVitt		J. LeVitt		J. LeVitt	
D. Eaton		D. Eaton		D. Eaton	
DESIGN/REVIEWED		DESIGN/REVIEWED		DESIGN/REVIEWED	
E. Brewer		E. Brewer		E. Brewer	
D. Eaton		D. Eaton		D. Eaton	
DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED	
D. Eaton		D. Eaton		D. Eaton	
REVISIONS 1		REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2		REVISIONS 2	
REVISIONS 3		REVISIONS 3		REVISIONS 3	
REVISIONS 4		REVISIONS 4		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	
OF 53		OF 53		OF 53	

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAD015\_XSECT\_47+50\_003.dgn



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		CROSS SECTIONS	
SHEET NUMBER		15	
OF 53		BRIDGE NO. 6815 WIN 23505.00 BRIDGE PLANS	

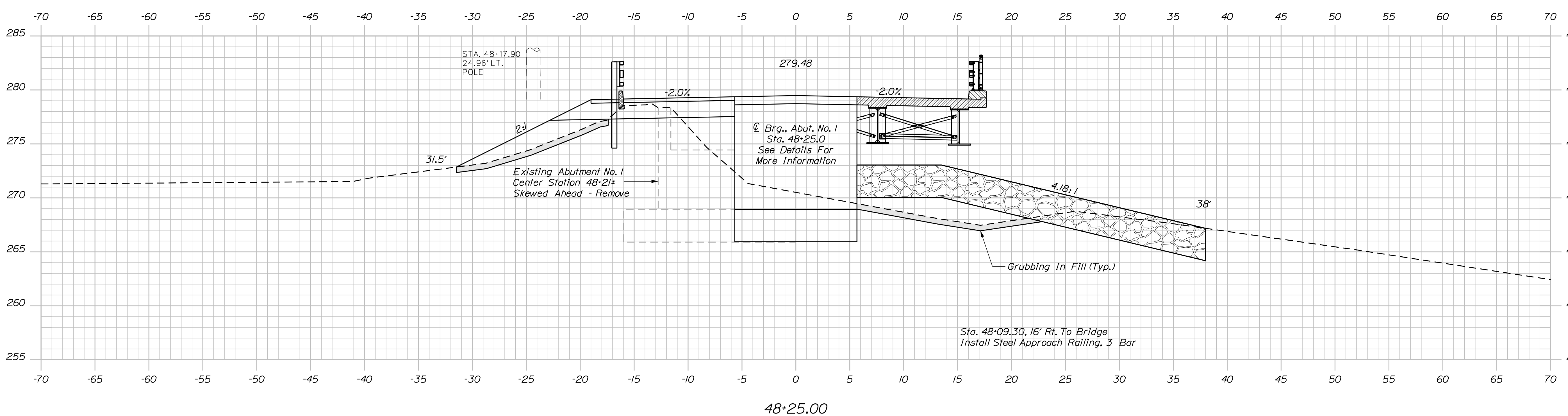
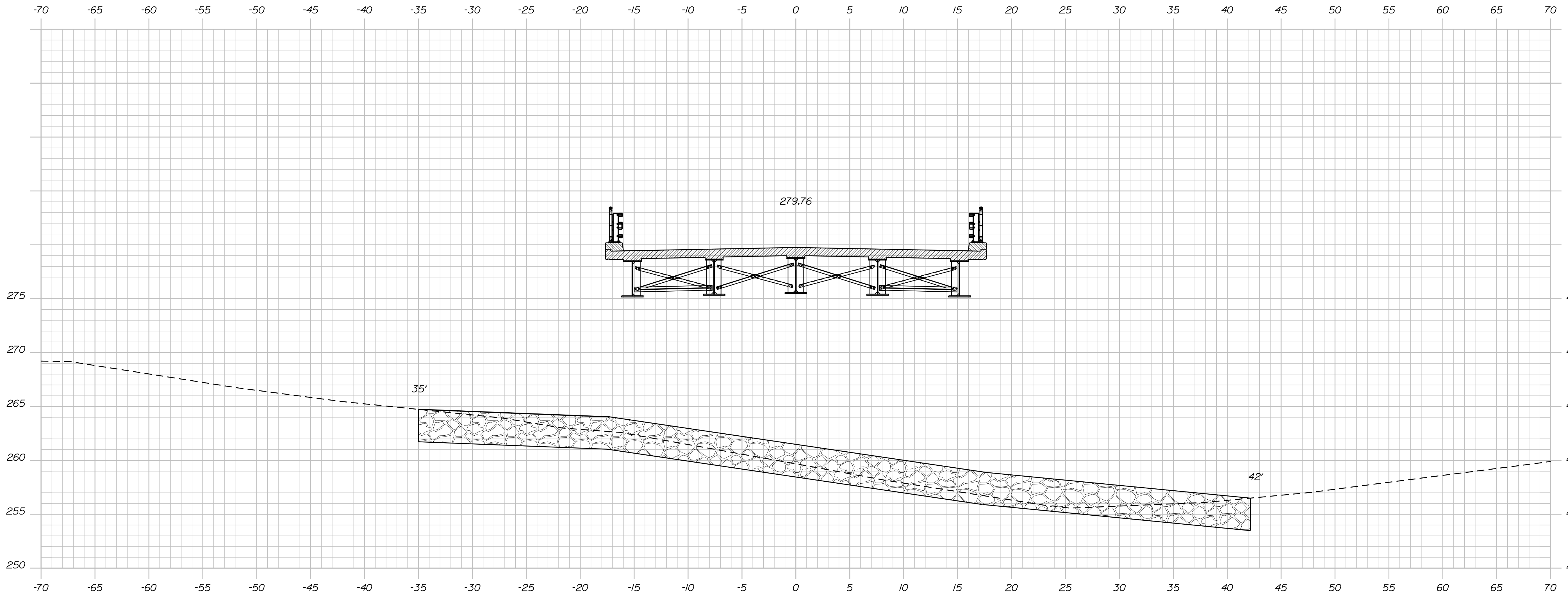
PROJ. MGR.	DESIGN	CHECKED	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
D. Eaton	E. Brewer	J. LeVitt	OCT 2022	J. LeVitt	NOV 2022			
DESIGN DETAILED	DESIGN REVIEWED	DESIGN DETAILED						
REVISIONS 1	REVISIONS 2	REVISIONS 3						
REVISIONS 4	FIELD CHANGES							

Date: 12/8/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MST\A016\_XSECT\_48+25\_004.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

PROJ. MANAGER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
D. Eaton	OCT 2022	M.R.P.	NOV 2022			
E. Brewer		J. LeVitt				
CHECKED-REVIEWED						
DESIGN DETAILED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

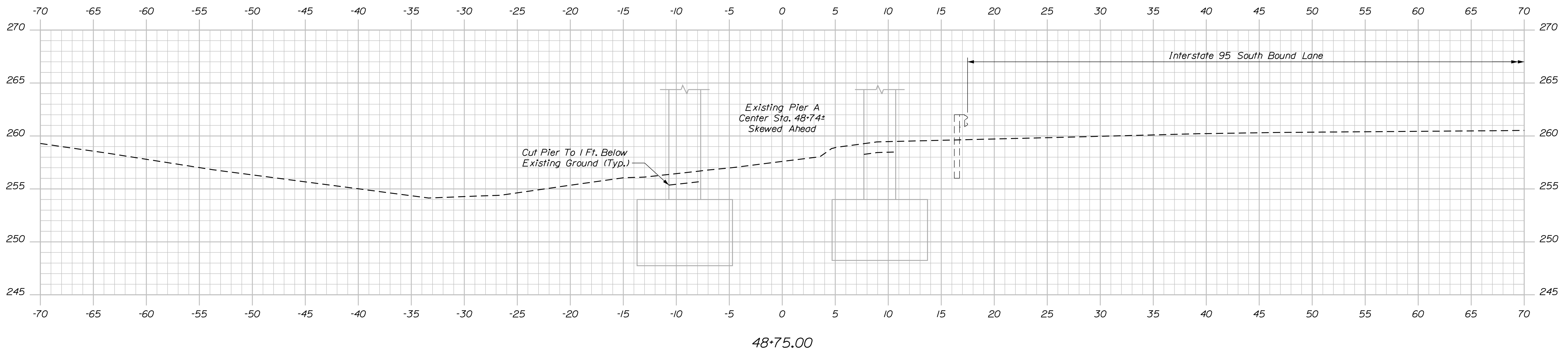
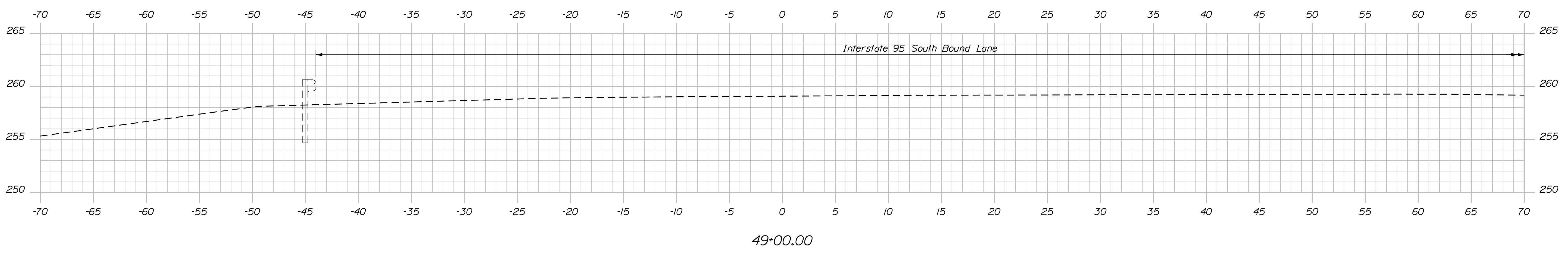
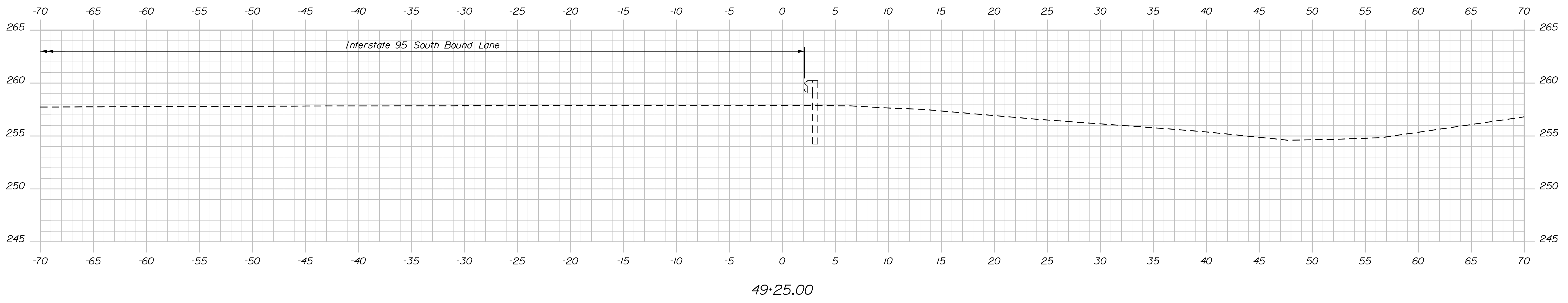
SHEET NUMBER  
**16**  
OF 53

Date: 12/18/2022

Username: devan.c.eaton

Division: BRIDGE

Filename: ... \MSTAO17\_XSECT\_48+75\_005.dgn



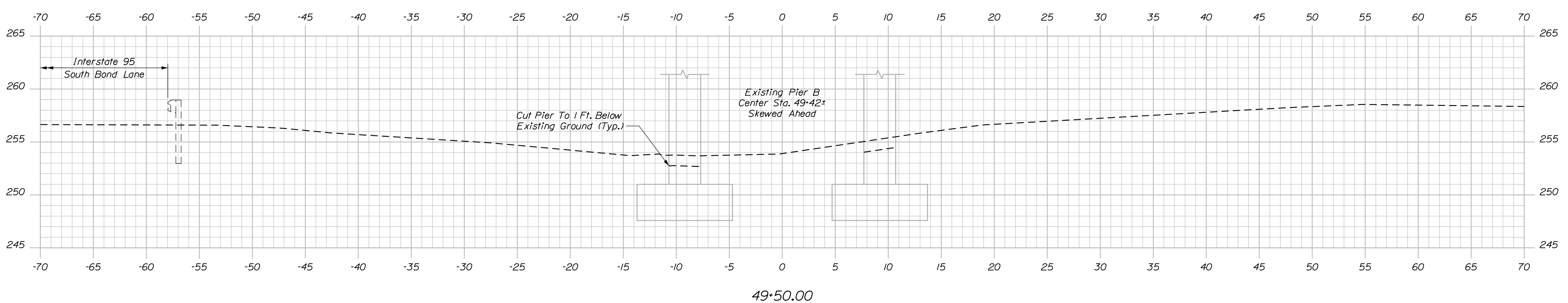
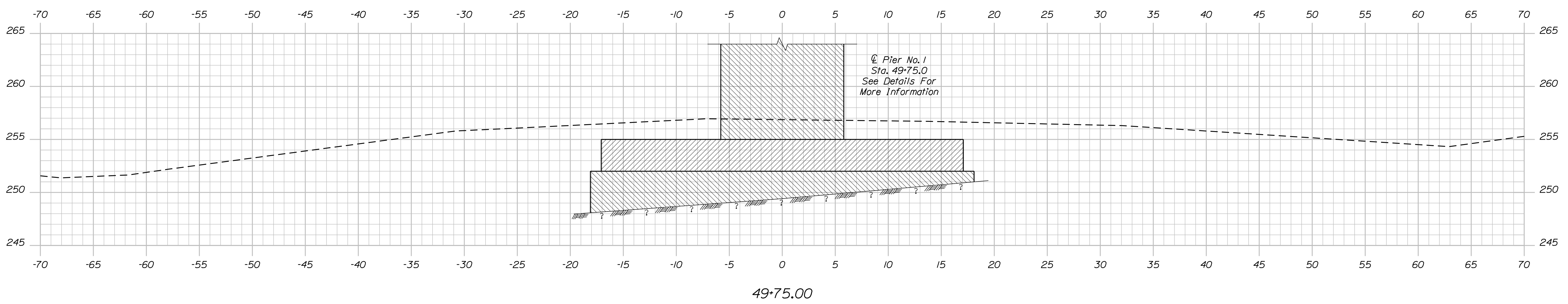
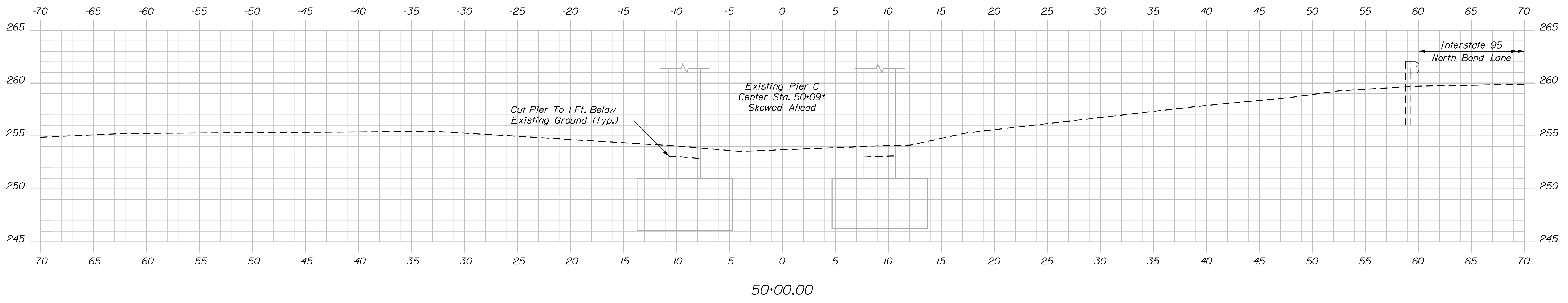
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500		WIN 23505.00		BRIDGE NO. 6815		BRIDGE PLANS	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		CROSS SECTIONS		SHEET NUMBER <b>17</b> OF 53		DATE OCT 2022 NOV 2022		SIGNATURE P.E. NUMBER DATE	
PROJ. MANAGER D. Eaton	CHECKED-DETAILED E. Brewer	BY M.A.P. J. LeVith	DATE OCT 2022 NOV 2022	DESIGN-DETAILED D. Eaton	DESIGNS-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
FIELD CHANGES									

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAD018\_XSECT\_49+50\_006.dgn



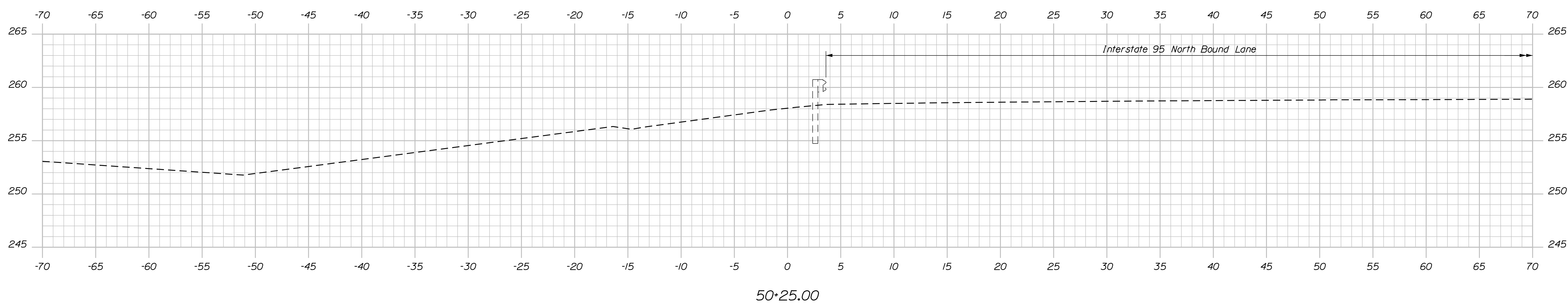
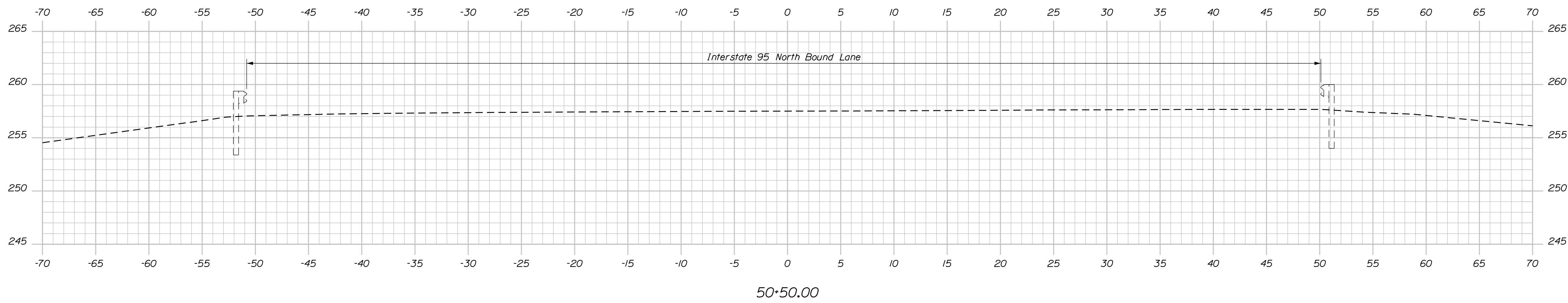
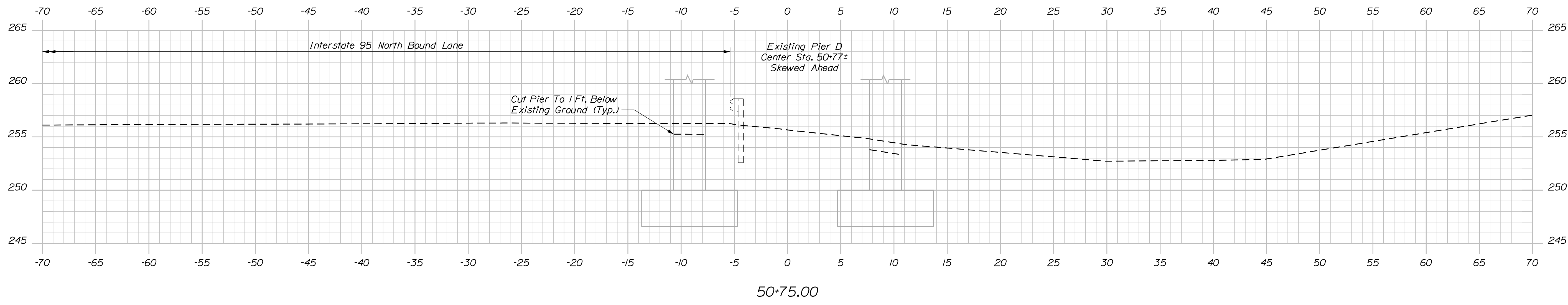
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500		WIN		23505.00		BRIDGE NO. 6815		BRIDGE PLANS	
ARMSTRONG ROAD BRIDGE		OVER INTERSTATE - 95		OAKLAND & WATERVILLE KENNEBEC COUNTY		CROSS SECTIONS		SHEET NUMBER		18		OF 53	
PROJ. MANAGER	D. Eaton	BY	D. Eaton	DATE	OCT 2022	SIGNATURE	P.E. NUMBER	DATE					
DESIGN DETAILED	E. Brewer	M.A.P.	J. LeVith	DATE	NOV 2022								
CHECKED-REVIEWED	D. Eaton												
DESIGNS DETAILED													
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													

Date: 12/8/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAD019\_XSECT\_50-25\_007.dgn



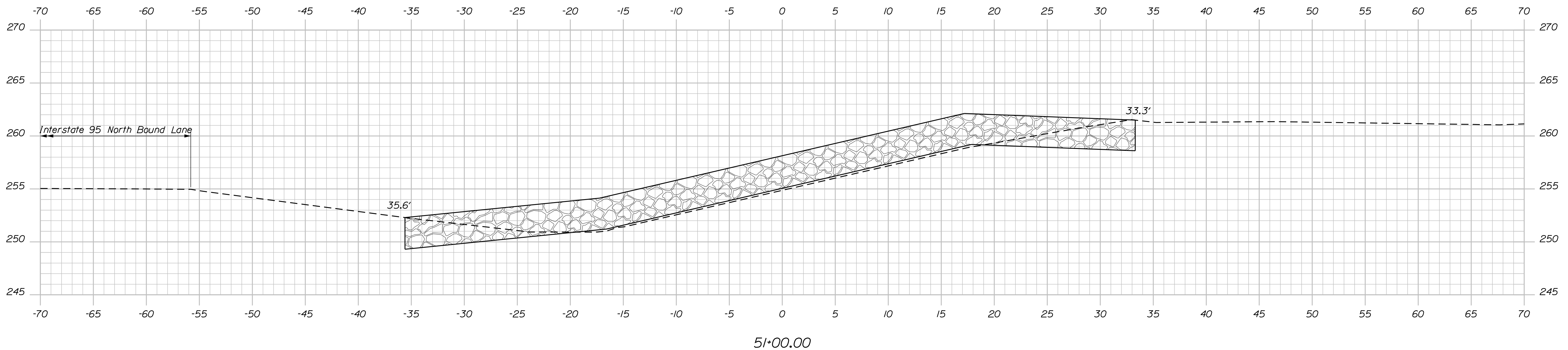
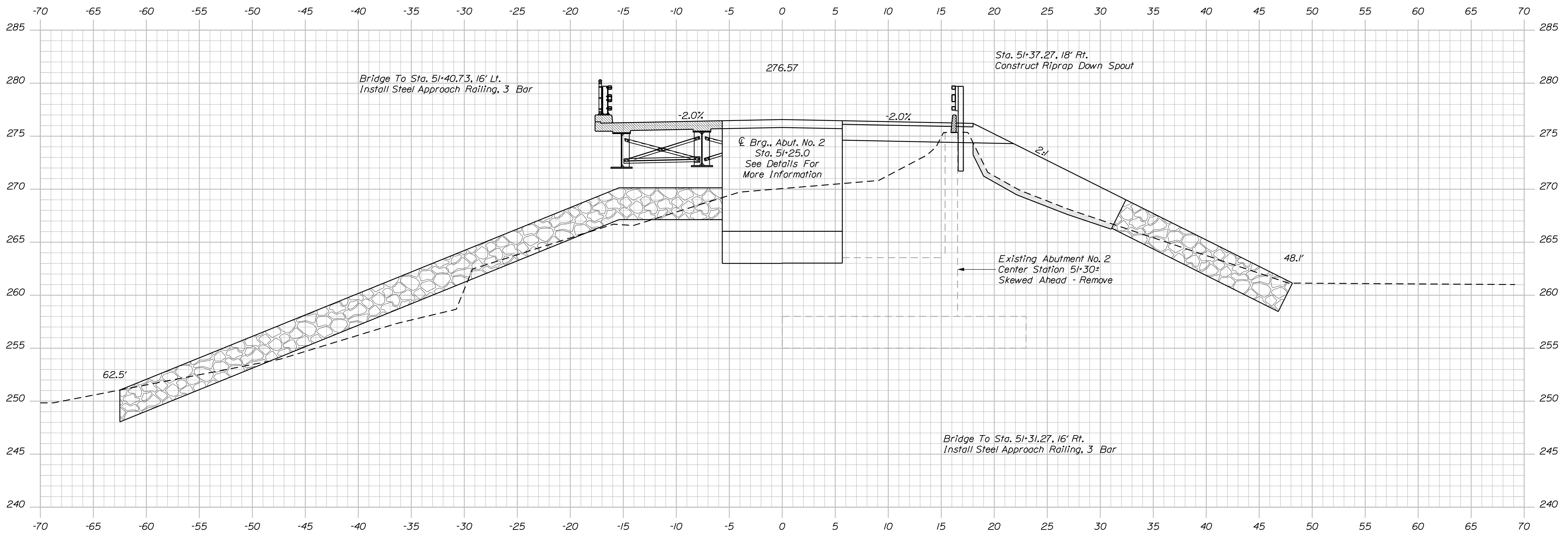
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		BRIDGE NO. 6815 WIN 23505.00	
CROSS SECTIONS		BRIDGE PLANS	
PROJ. MANAGER	D. Eaton	DATE	
DESIGN DETAILED	E. Brewer	OCT 2022	
CHECKED-REVIEWED	D. Eaton	NOV 2022	
DESIGN DETAILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SHEET NUMBER		19	
OF 53			

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAD20\_XSECT\_51+00\_008.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

DESIGNED	DATE	SIGNATURE
CHECKED	OCT 2022	
REVIEWED	NOV 2022	
DESIGNED		P.E. NUMBER
REVISIONS 1		DATE
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

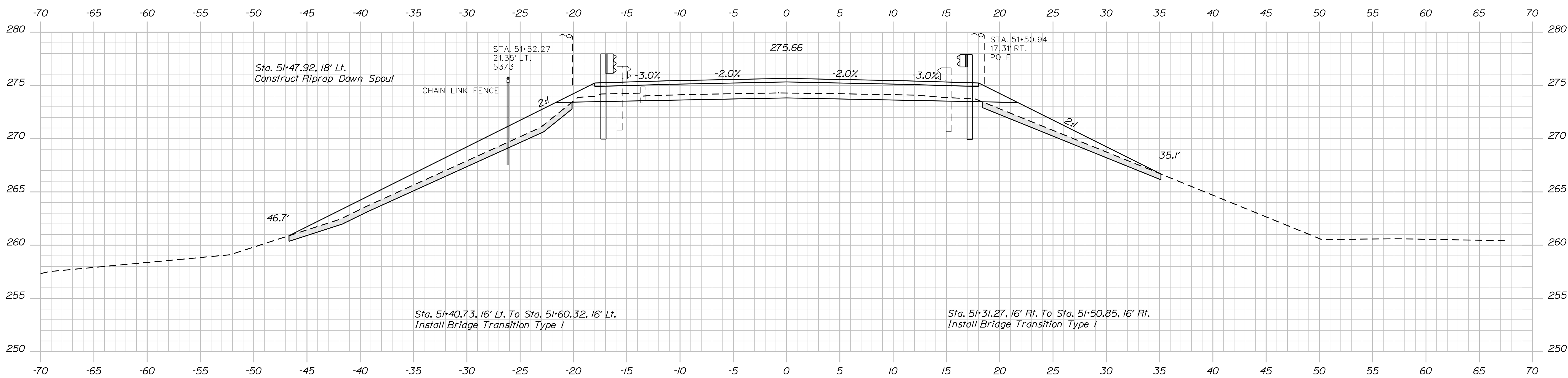
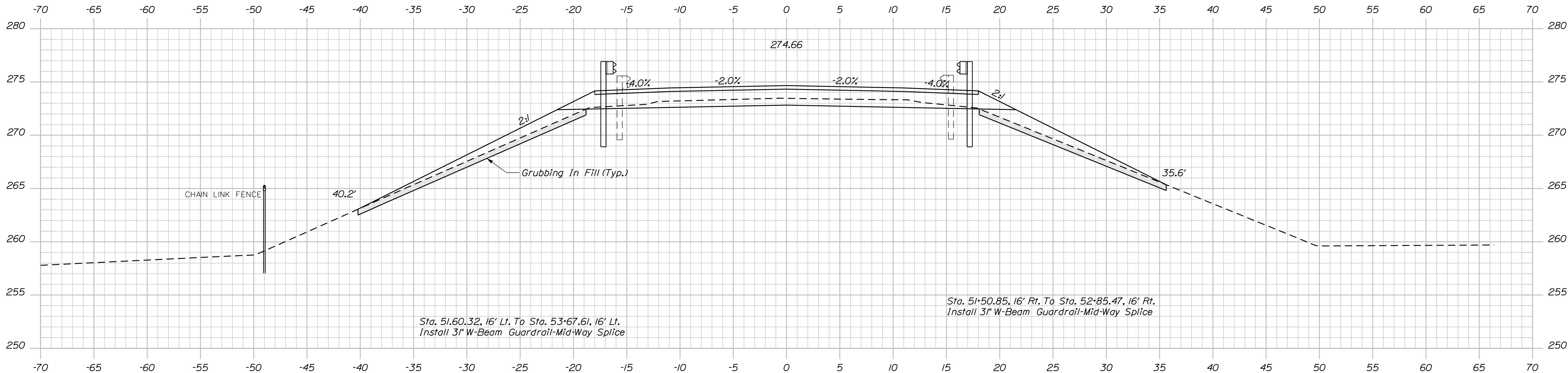
SHEET NUMBER  
**20**  
OF 53

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAN021\_XSECT\_51+50\_009.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

PROJ. MANAGER	D. Eaton	DATE	DATE
DESIGN/DETAILED	E. Brewer	OCT 2022	SIGNATURE
CHECKED/REVIEWED	D. Eaton	NOV 2022	P.E. NUMBER
DESIGN/DETAILED			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

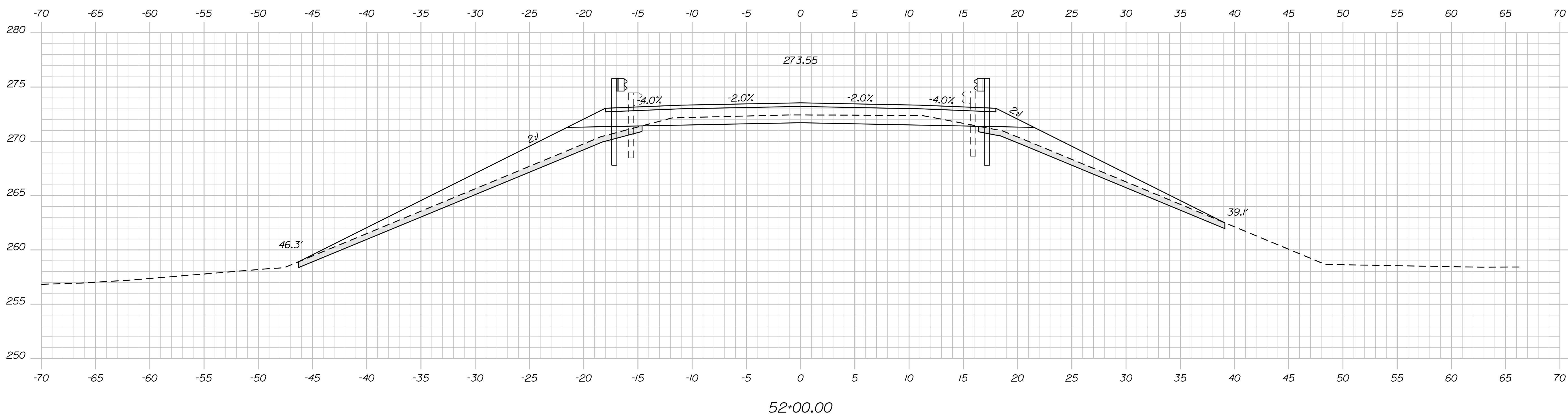
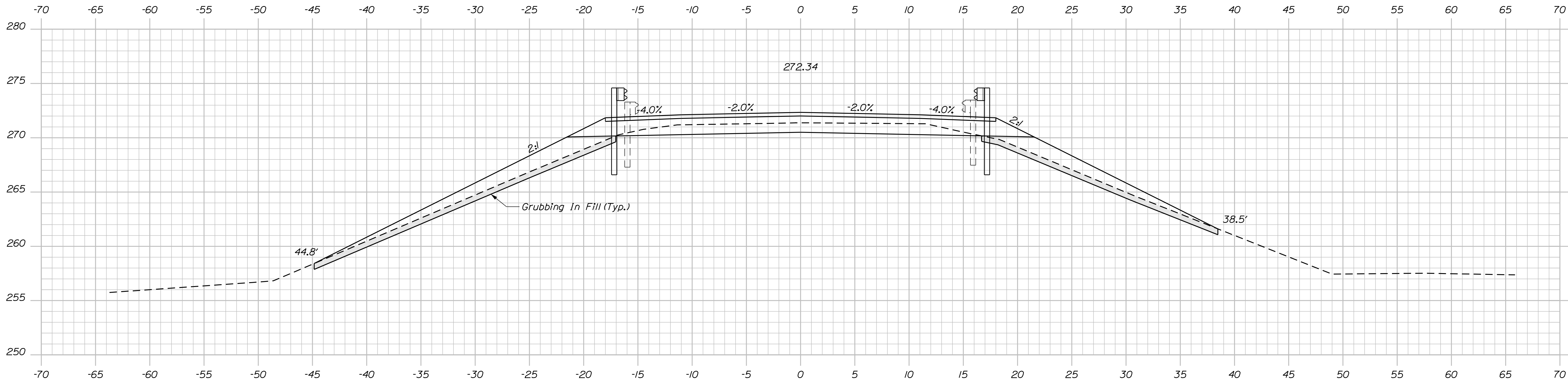
SHEET NUMBER  
**21**  
OF 53

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTA\022\_XSECT\_52+00\_010.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

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

DATE  
OCT 2022  
NOV 2022

SIGNATURE  
P.E. NUMBER  
DATE

PROJ. MANAGER  
D. Eaton

BY  
M.R.P.  
J. LeVith

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER  
22  
OF 53

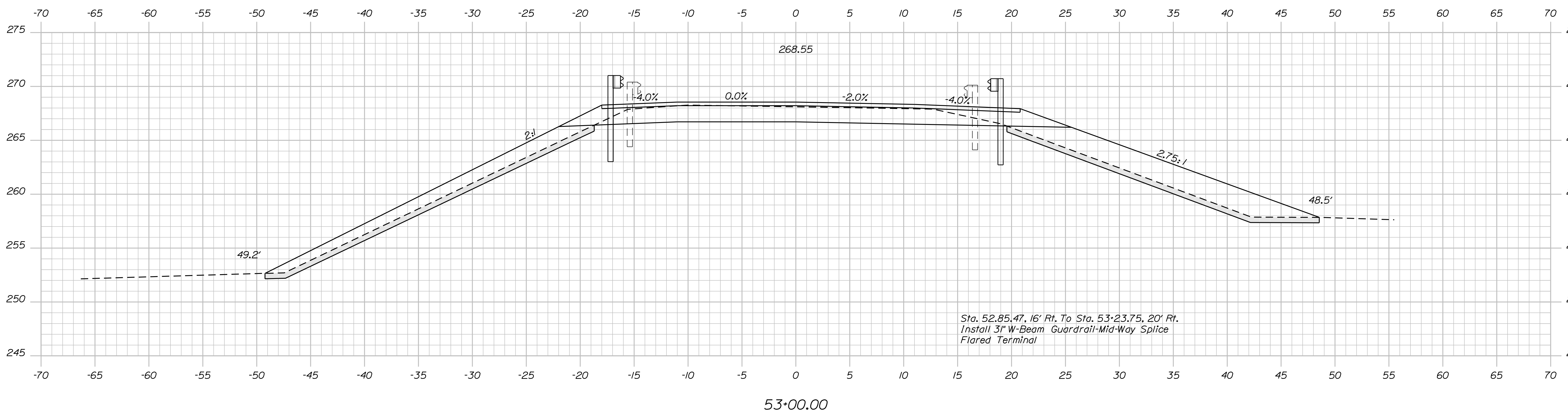
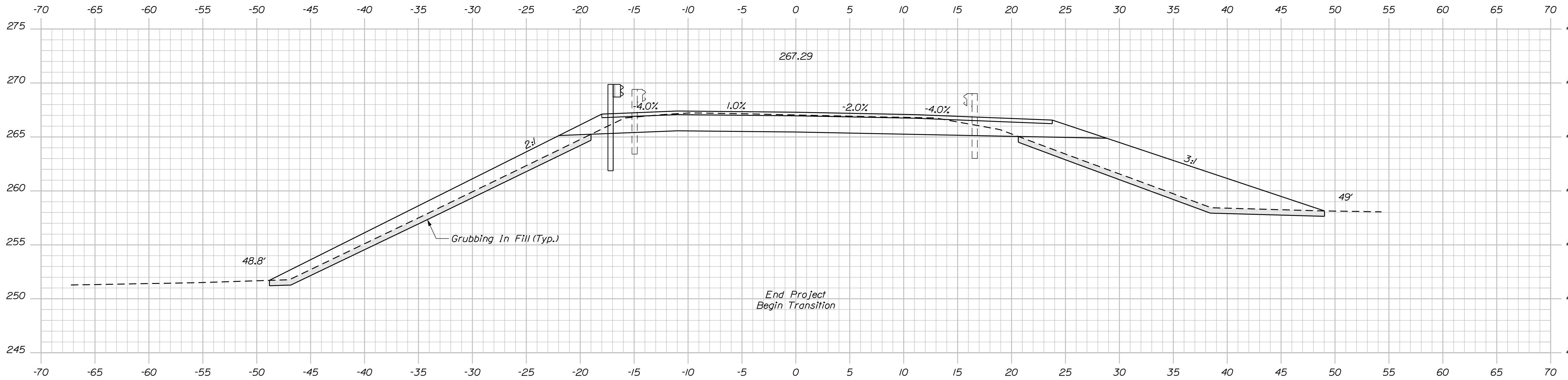


Date: 12/8/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTA\024\_XSECT\_53+00\_012.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

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

D. Eaton  
E. Brewer  
J. LeVinh

OCT 2022  
NOV 2022

M.A.P.  
M.A.P.

SIGNATURE  
P.E. NUMBER  
DATE

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY

CROSS SECTIONS

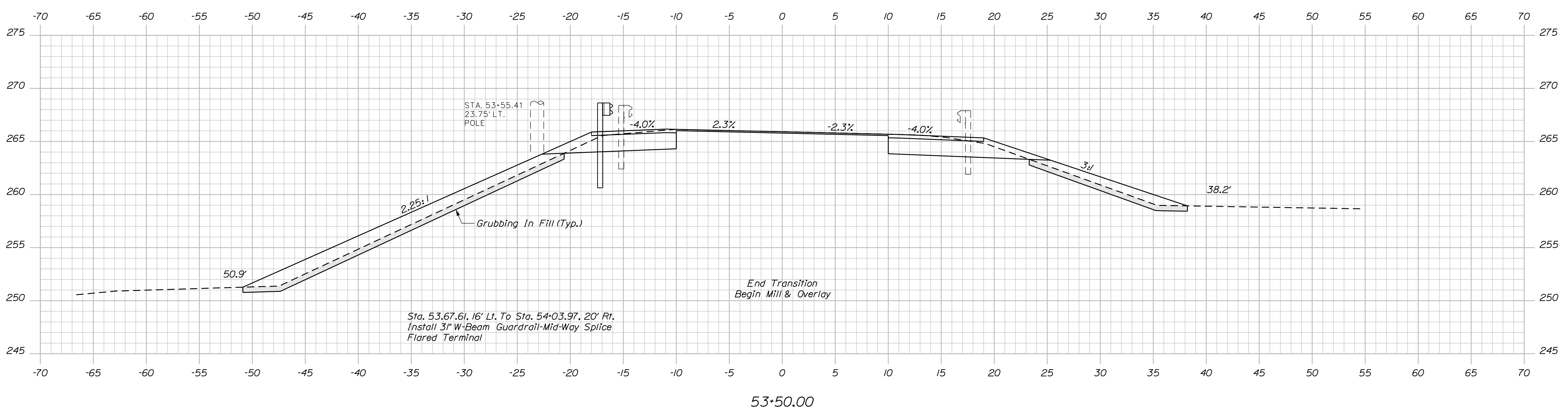
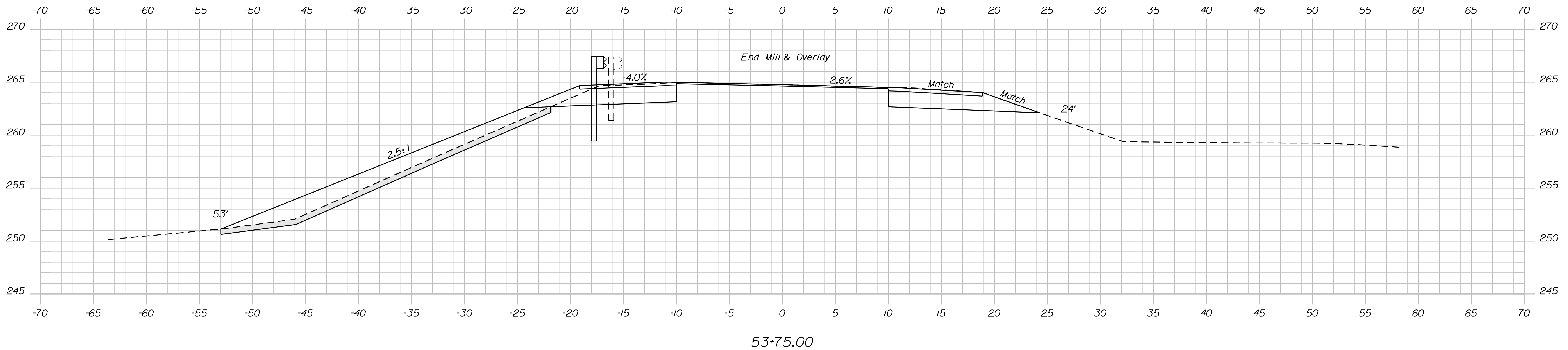
SHEET NUMBER  
24  
OF 53

Date: 12/8/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAD025\_XSECT\_53+50\_013.dgn



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

DESIGNED	DATE
CHECKED-REVIEWED	OCT 2022
DESIGNED-REVIEWED	NOV 2022
DESIGNED-REVIEWED	SIGNATURE
REVISIONS 1	P.E. NUMBER
REVISIONS 2	DATE
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

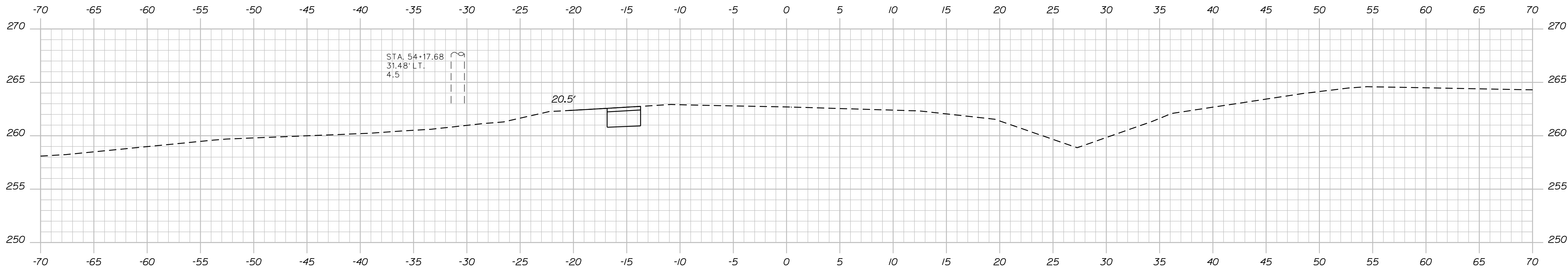
SHEET NUMBER  
**25**  
OF 53

Date: 12/18/2022

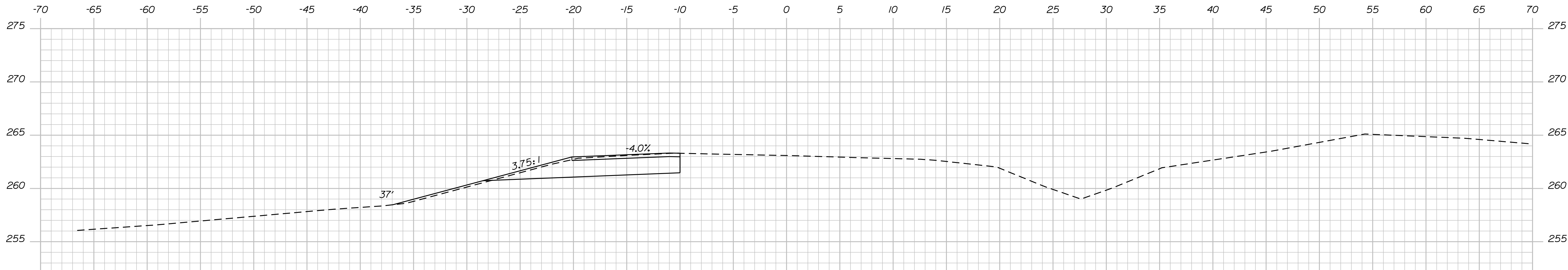
Username: devon.c.eaton

Division: BRIDGE

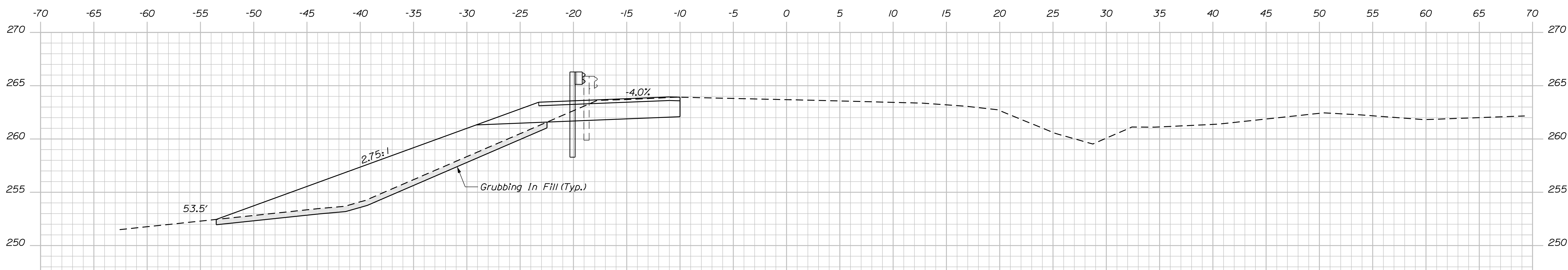
Filename: ... \MSTA\026\_XSECT\_54+00\_014.dgn



54+25.00



54+15.00



54+00.00

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE		OAKLAND & WATERVILLE KENNEBEC COUNTY		WIN	
OVER INTERSTATE - 95		CROSS SECTIONS		23505.00	
SHEET NUMBER		26		OF 53	
BRIDGE NO. 8815		BRIDGE PLANS		BRIDGE NO. 8815	

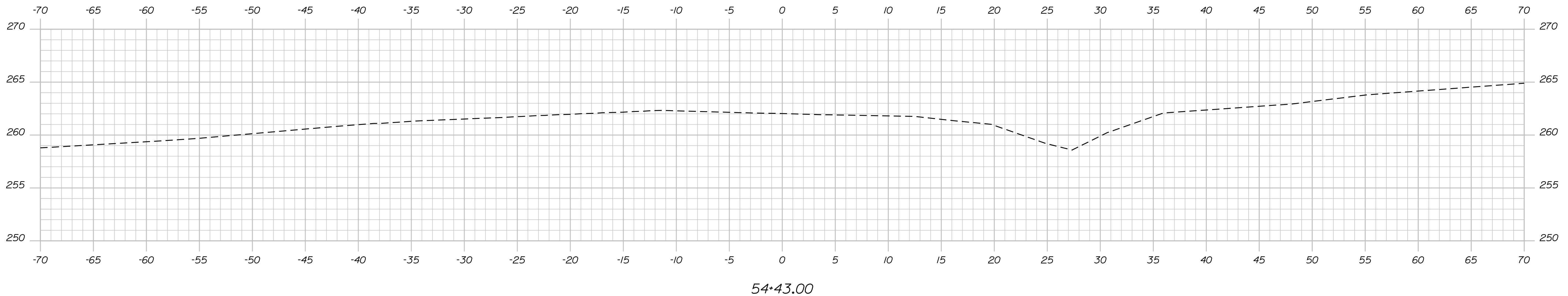
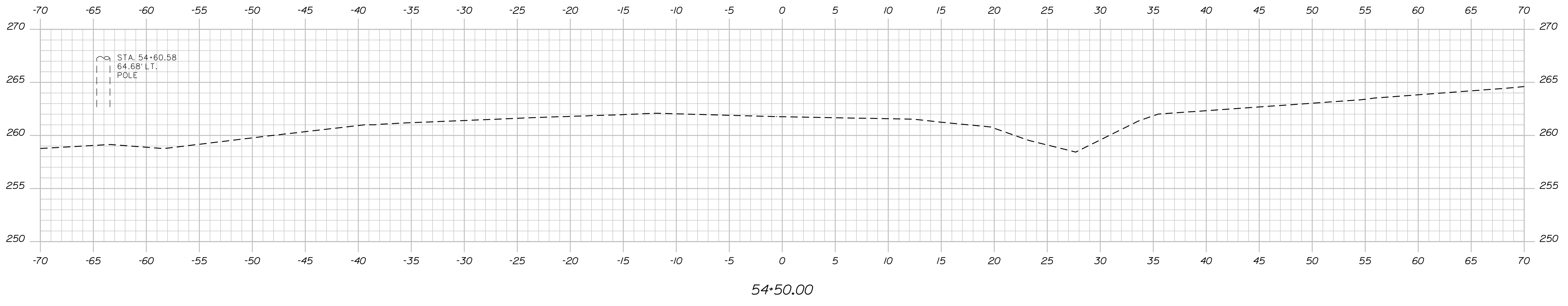
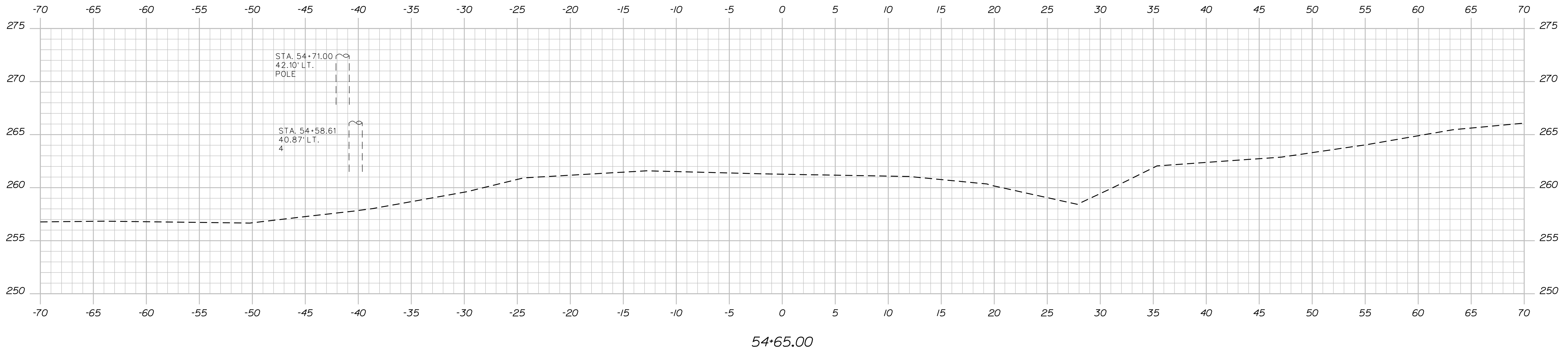
PROJ. MANAGER	DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
D. Eaton	OCT 2022	M.R.P.	NOV 2022			
E. Brewer		J. LeVitt				
J. LeVitt						

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTAD027\_XSECT\_54+43\_015.dgn



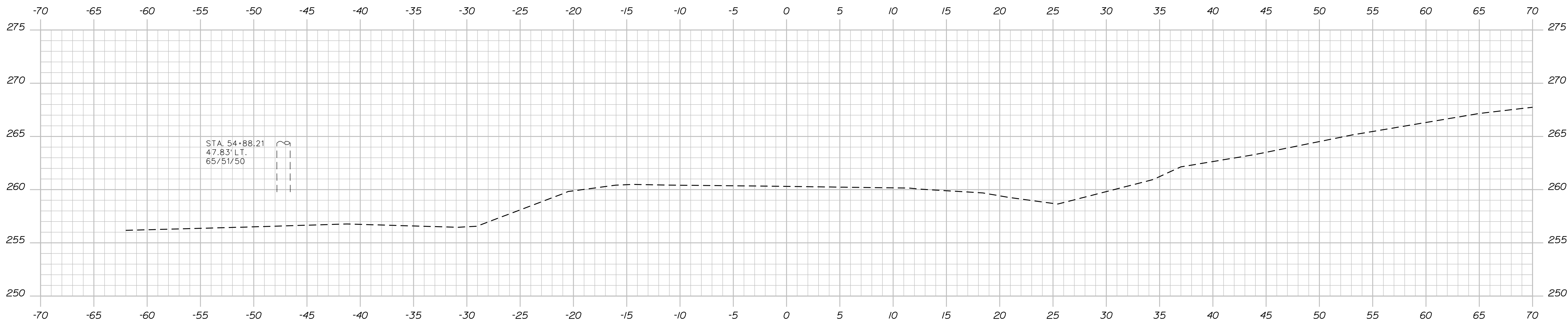
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN 23505.00  
BRIDGE NO. 8815 BRIDGE PLANS

PROJ. MANAGER: D. Eaton  
BY: M.A.P. J. LeVith  
DATE: OCT 2022, NOV 2022  
SIGNATURE: \_\_\_\_\_  
P.E. NUMBER: \_\_\_\_\_  
DATE: \_\_\_\_\_

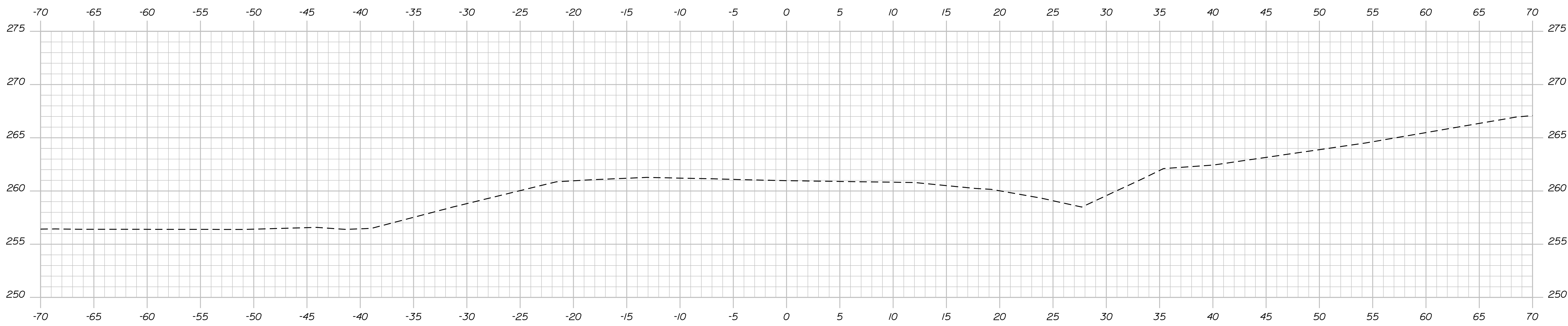
DESIGN-DETAILED: E. Brewer  
CHECKED-REVIEWED: D. Eaton  
DESIGN-DETAILED: \_\_\_\_\_  
REVISIONS 1: \_\_\_\_\_  
REVISIONS 2: \_\_\_\_\_  
REVISIONS 3: \_\_\_\_\_  
REVISIONS 4: \_\_\_\_\_  
FIELD CHANGES: \_\_\_\_\_

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

SHEET NUMBER  
27  
OF 53



55+00.00



54+75.00

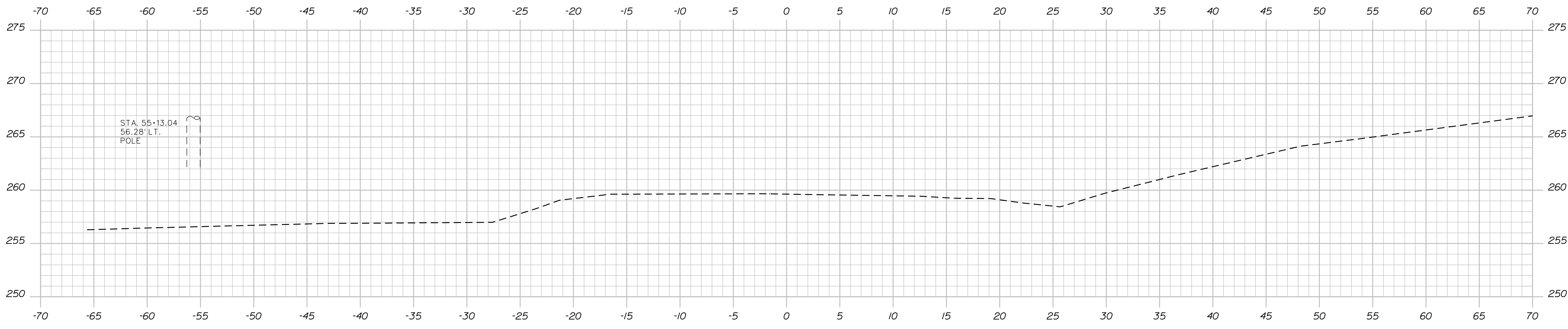
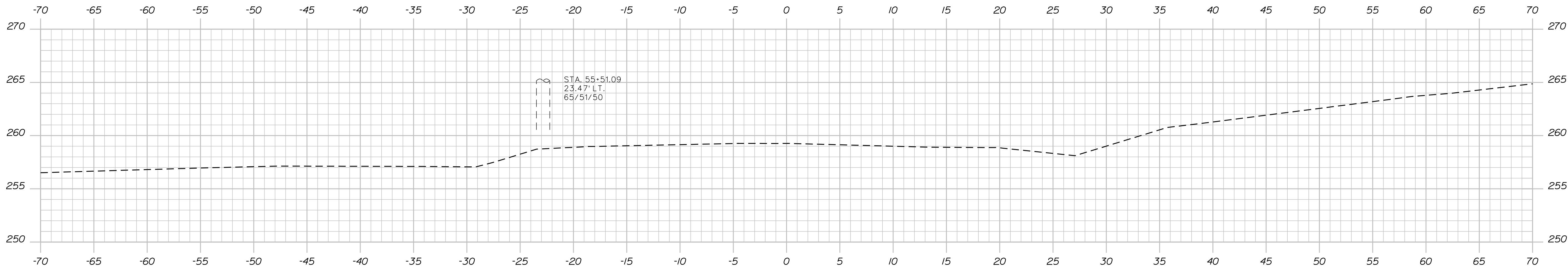
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

SIGNATURE  
P.E. NUMBER  
DATE

PROJ. MANAGER	BY	DATE
D. Eaton	J. LeVitt	NOV 2022
DESIGN-DETAILED	E. Brewer	OCT 2022
CHECKED-REVIEWED	D. Eaton	
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

SHEET NUMBER  
**28**  
OF 53



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

PROJ. MANAGER	D. Eaton	BY	DATE
DESIGN DETAILED	E. Brewer	M.A.P.	OCT 2022
CHECKED/REVIEWED	D. Eaton	J. LeVitt	NOV 2022
DESIGN DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

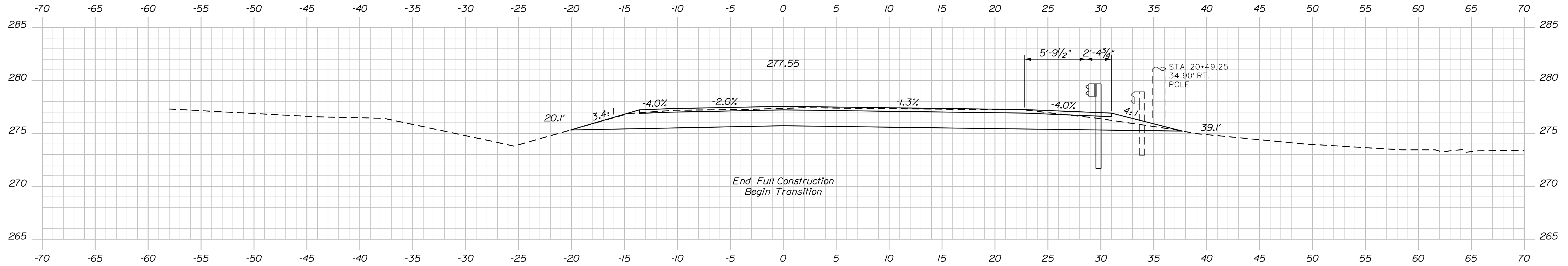
SHEET NUMBER  
**29**  
OF 53

Date: 12/18/2022

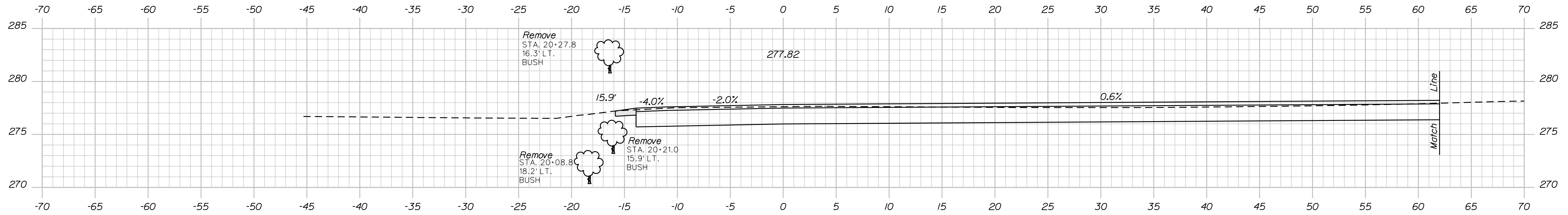
Username: devon.c.eaton

Division: BRIDGE

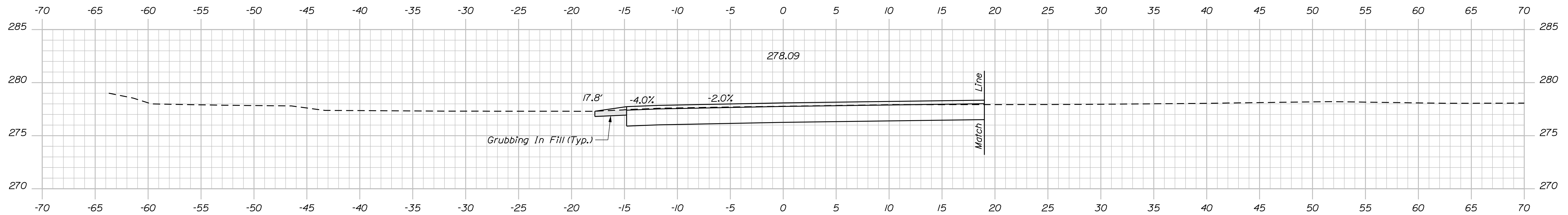
Filename: ... \MSTA\030\_XSECT\_19-70\_018.dgn



20+50.00



20+25.00



20+00.00

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

2350500

WIN

23505.00

BRIDGE NO. 6815 BRIDGE PLANS

DATE  
OCT 2022  
NOV 2022

SIGNATURE

BY  
M.A.P.  
J. LeVill

D. Eaton

PROJ. MANAGER  
DESIGN-DETAILED  
CHECKED-REVIEWED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

P.E. NUMBER

DATE

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

30

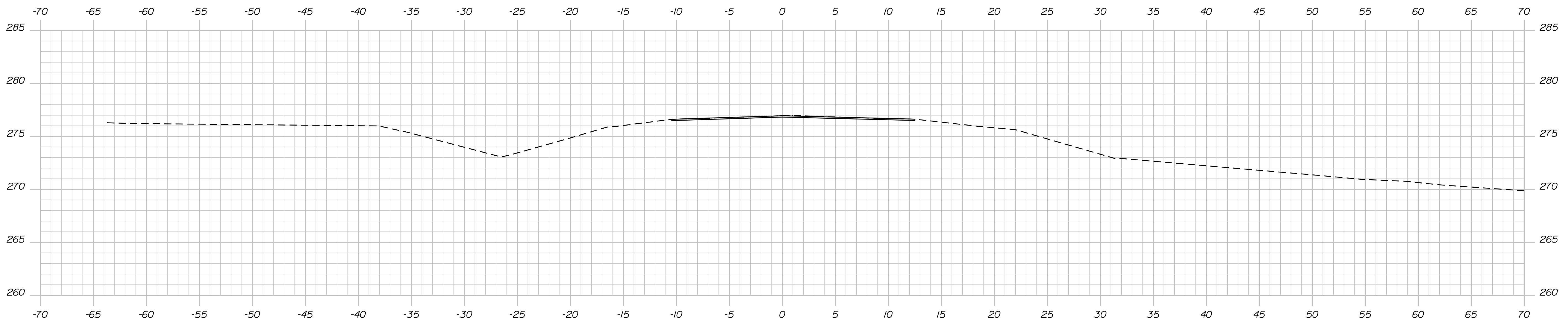
OF 53

Date: 12/8/2022

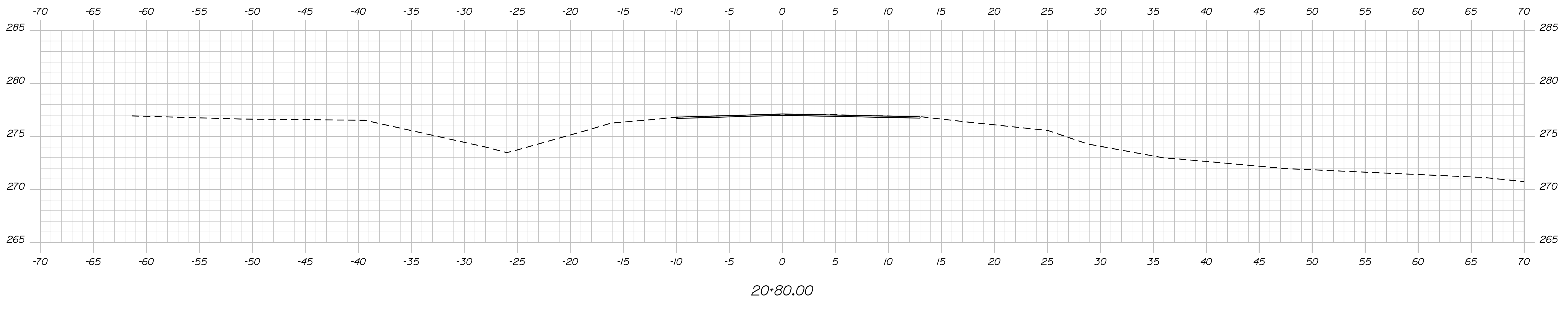
Username: devan.c.eaton

Division: BRIDGE

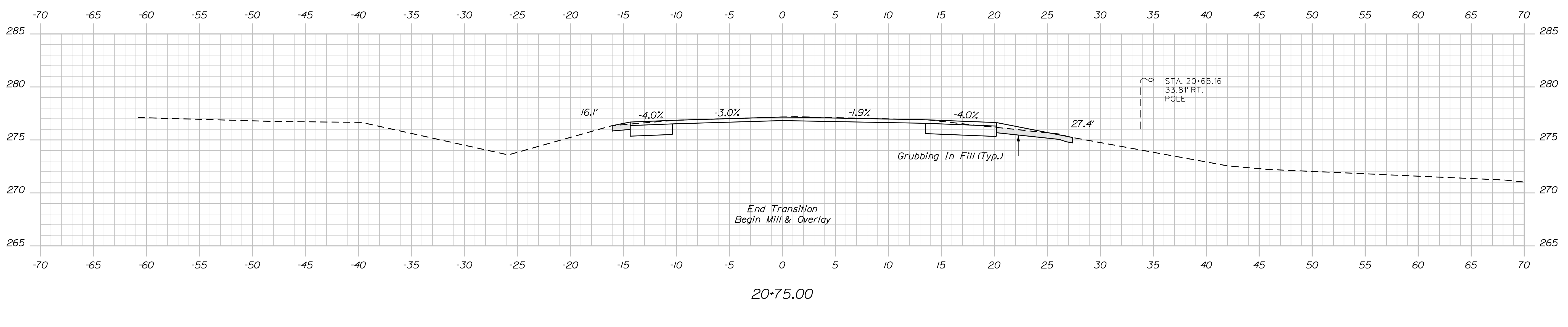
Filename: ... \MST\A031\_XSECT\_20+50\_019.dgn



21+00.00



20+80.00



20+75.00

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

PROJ. MANAGER	D. Eaton	BY	DATE
DESIGN DETAILED	E. Brewer	M.A.P.	OCT 2022
CHECKED/REVIEWED	D. Eaton	J. LeVitt	NOV 2022
DESIGN DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

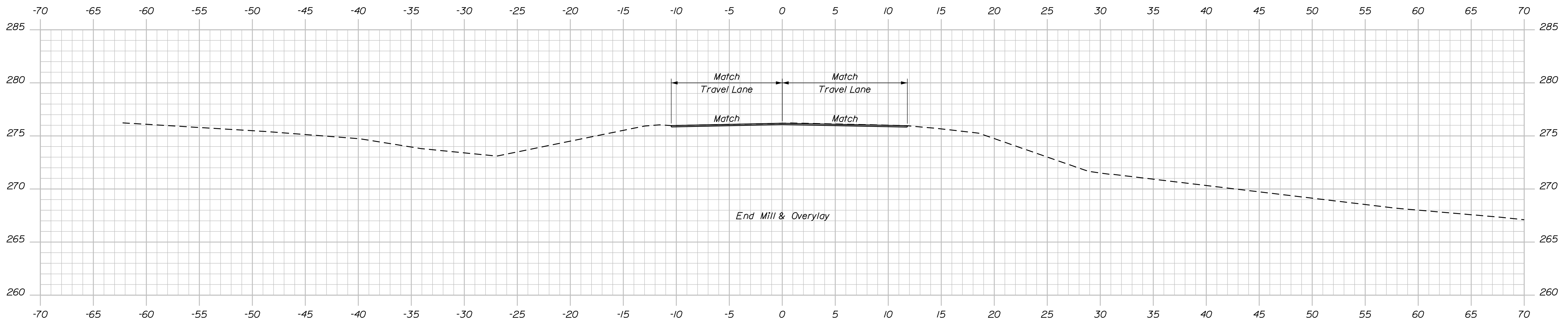
SHEET NUMBER  
**31**  
OF 53

Date: 12/8/2022

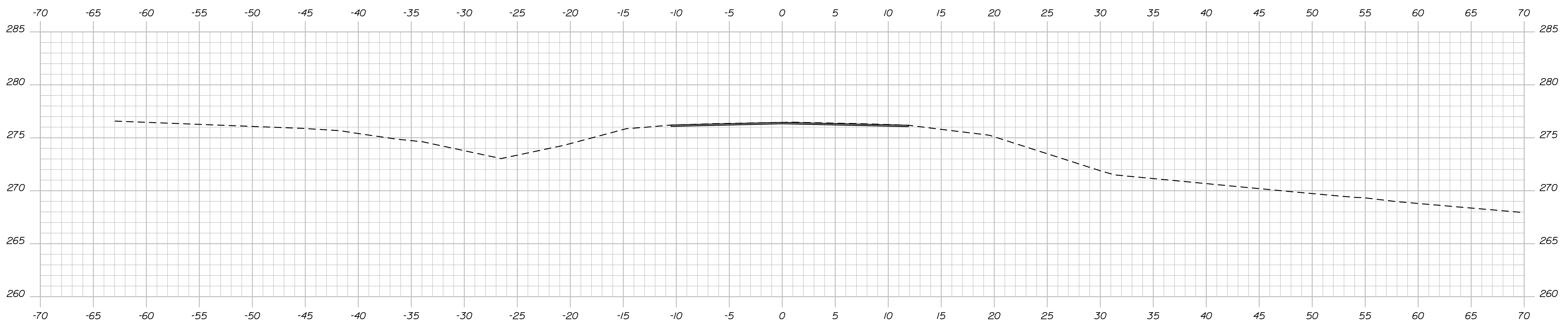
Username: devon.c.eaton

Division: BRIDGE

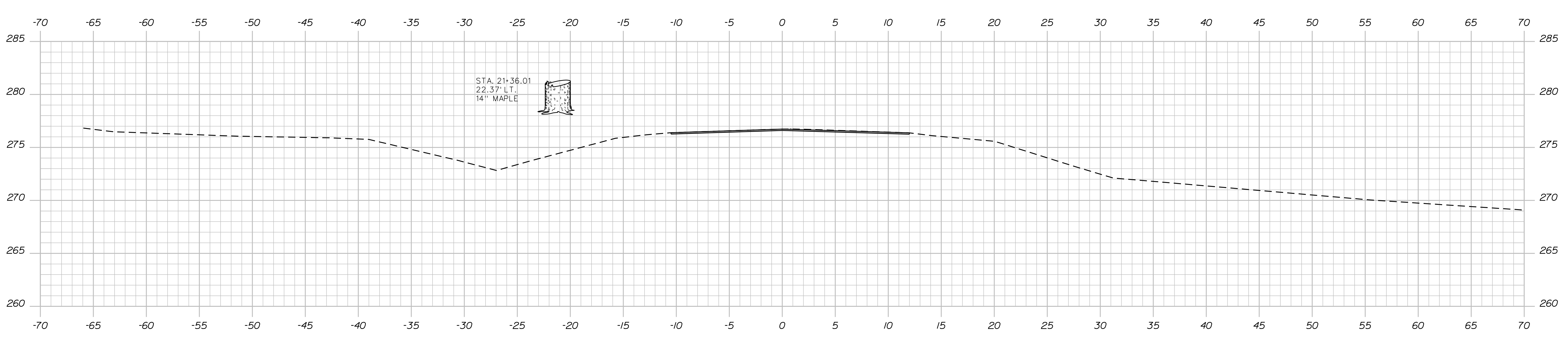
Filename: ... \MSTA\032\_XSECT\_21+25\_020.dgn



21+75.00



21+50.00



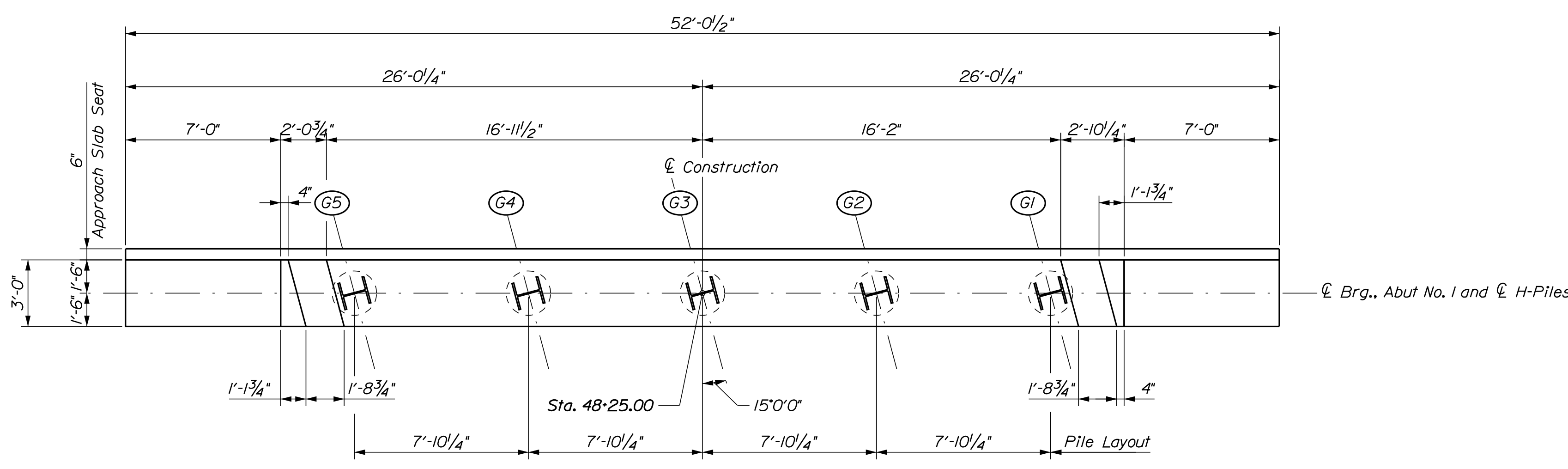
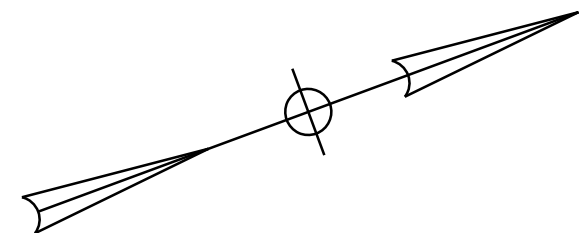
21+25.00

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

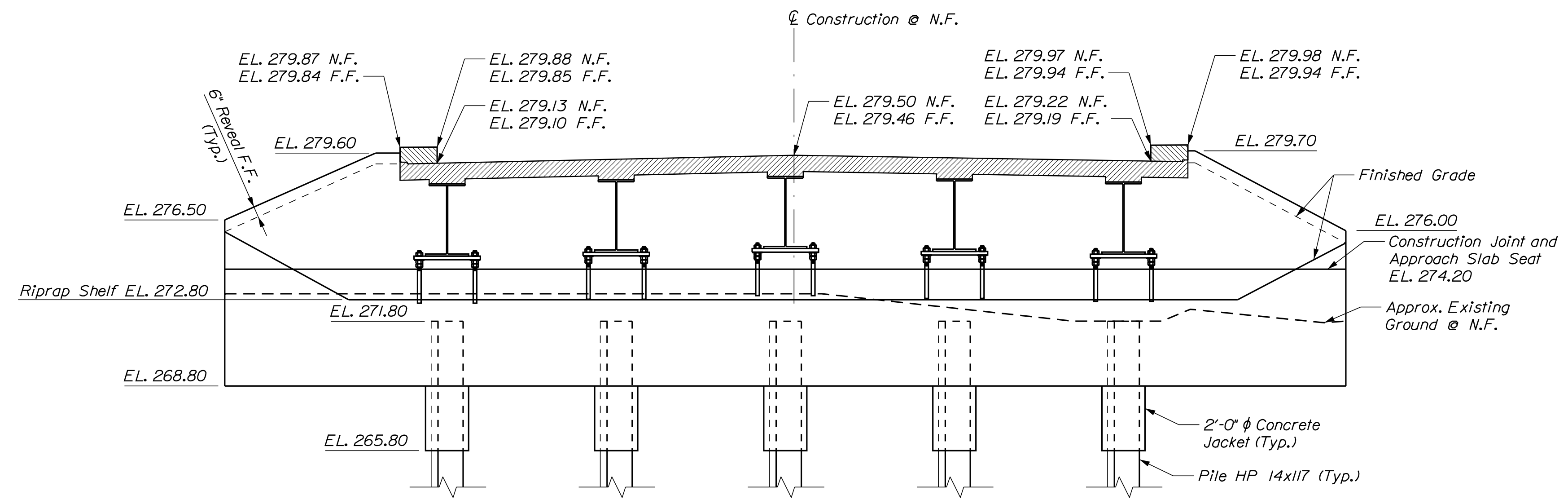
PROJ. MANAGER	D. Eaton	DATE	
DESIGN DETAILED	E. Brewer	OCT 2022	
CHECKED/REVIEWED	D. Eaton	NOV 2022	SIGNATURE
DESIGN DETAILED			P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
CROSS SECTIONS

SHEET NUMBER  
**32**  
OF 53



**ABUTMENT NO. 1 PLAN AND PILE LAYOUT**  
(Girders not shown for clarity)



**ABUTMENT NO. 1 ELEVATION**

**ABUTMENT NOTES**

1. Abutments shall be backfilled with Granular Borrow. Pay limits will be as shown.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in the bottom face unless otherwise noted.
3. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
4. 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.
5. Install Drainage Geocomposite behind the abutments and wingwalls up to the approach slab seat elevation, including 4 inch diameter weep drains at 10 feet maximum spacing, in accordance with Special Provision Section 620, Drainage Geocomposite. The exact location of weepers will be determined by the Resident.
6. The temporary girder supports, including anchor rods, leveling plates, and any associated hardware and labor required for installation shall not be paid for directly. Payment shall be considered incidental to related Contract items.
7. Omit v-groove at exposed face of horizontal construction joint at bridge seat.
8. The mortared chamfer at the interface of the approach slab and backwall will be considered incidental to related Contract items. No separate payment will be made.

**PILE NOTES**

1. The maximum factored pile load is 376 kips at the Strength Limit State.
  2. Piles shall be driven to the required resistance on or within bedrock in accordance with Standard Specification Section 501.
  3. Estimate of piles required:  
Abutment No. 1: 5 ~ HP 14x17 @ 18 feet (Rock Socketed)  
Abutment No. 2: 5 ~ HP 14x17 @ 25 feet (Driven)
- The order lengths of the driven piles at Abutment No. 2 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. All rock-socketed piles shall be equipped with a bearing plate at the pile tip, as shown on the plans. All costs associate with fabrication and installation of the bearing plates shall be incidental to Item 501.502.
  6. Piles shall not be out of position shown by more than 2 inches in any direction.
  7. The Contractor shall perform and submit a wave equation analysis of the proposed pile-hammer system for review and acceptance by the Resident for Abutment No. 2. 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.
  8. The Contractor shall perform one dynamic load test with signal matching and 24-hour (minimum) restrike tests to confirm the nominal resistance of the piles at Abutment No. 2. The required nominal resistance for the pile is the factored axial 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 Abutment No. 2.
  9. Piles shall be oriented as shown with the pile webs perpendicular to the girder centerline.
  10. It is expected that the existing footing at Abutment No. 2 will conflict with pile installation. Pre-drill to EL. 255.00 in accordance with Special Provision 501 - Pre-drilling Holes for Piles.

Filename: ... \00\BRIDGE\MSTA\033\_abut\_1.dgn    Division: BRIDGE    Username: devan.c.eaton    Date: 12/18/2022

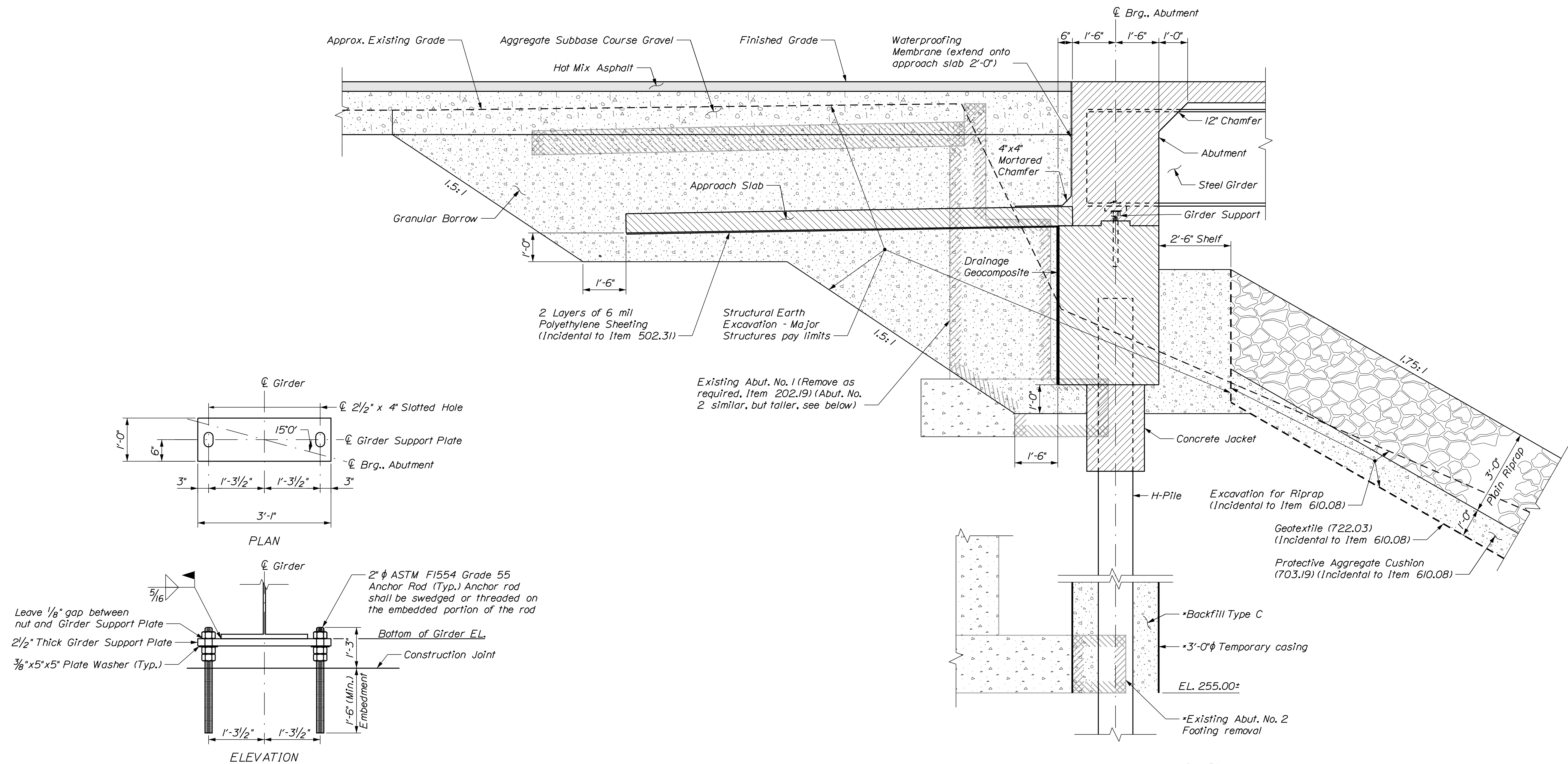
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500		WIN		23505.00		BRIDGE NO. 8815		BRIDGE PLANS	
ARMSTRONG ROAD BRIDGE												OAKLAND & WATERVILLE KENNEBEC COUNTY	
OVER INTERSTATE - 95												ABUTMENT NO. 1 DETAILS	
SHEET NUMBER												33	
OF 53													





**GIRDER SUPPORT NOTES**

1. Payment for fabrication and installation of the girder support assemblies at the abutments will be considered incidental to related contract items.
2. Grease plate washer prior to setting bearing plate. Wipe excess grease after erection.



**GIRDER SUPPORT DETAIL**

**TYPICAL ABUTMENT SECTION**

ABUTMENT NO. 1 BOTTOM OF GIRDER ELEVATIONS	
Girder	Elevation
G1	274.82
G2	274.95
G3	275.08
G4	274.91
G5	274.74

ABUTMENT NO. 2 BOTTOM OF GIRDER ELEVATIONS	
Girder	Elevation
G1	271.72
G2	271.95
G3	272.17
G4	272.08
G5	272.00

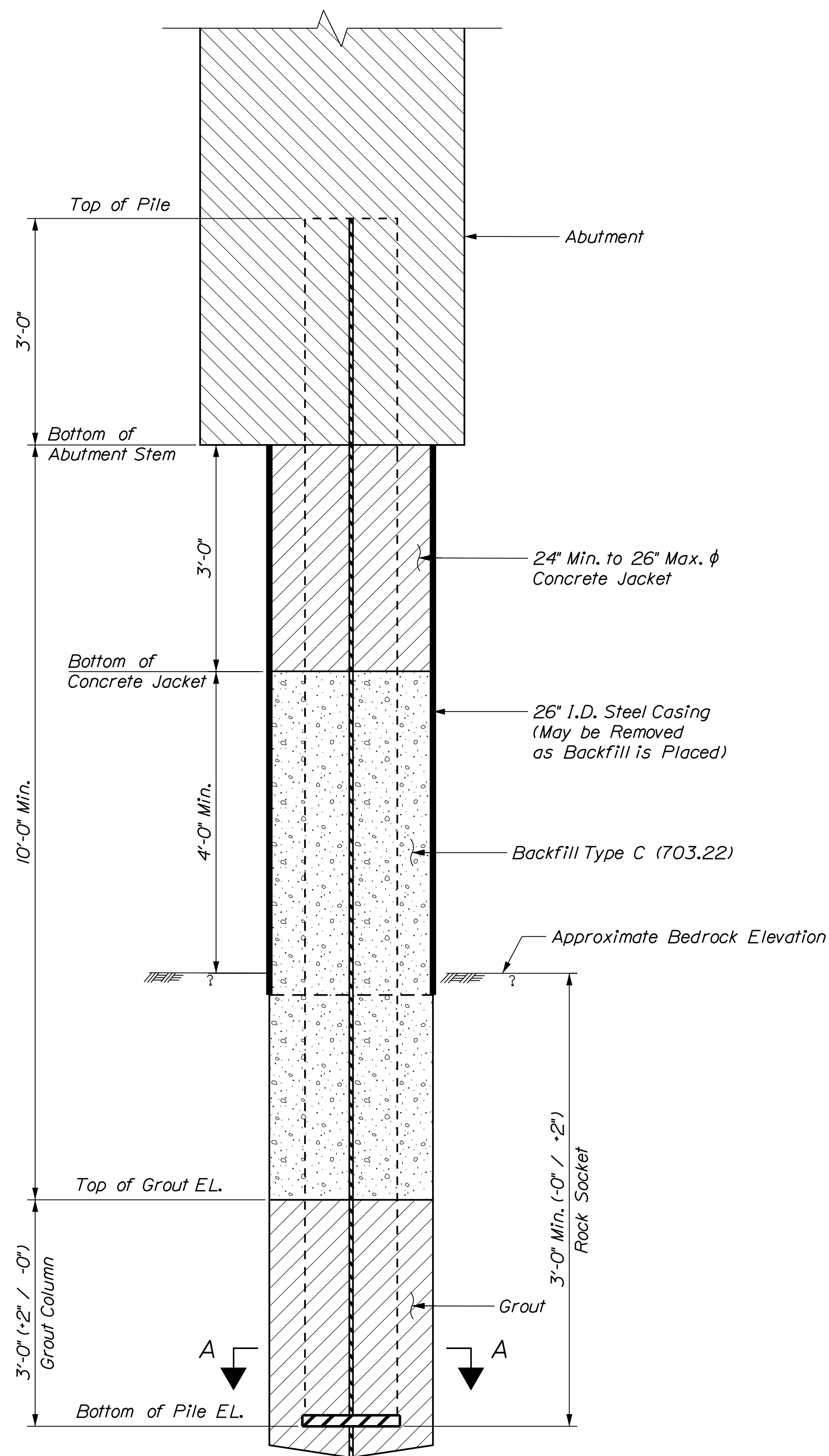
PROJ. MANAGER	D. Eaton	BY	DATE
DESIGN DETAILED	IS	IS	OCT 2022
CHECKED/REVIEWED	PAG	DOT	OCT 2022
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
**ABUTMENT SECTION &  
GIRDER SUPPORT DETAIL**

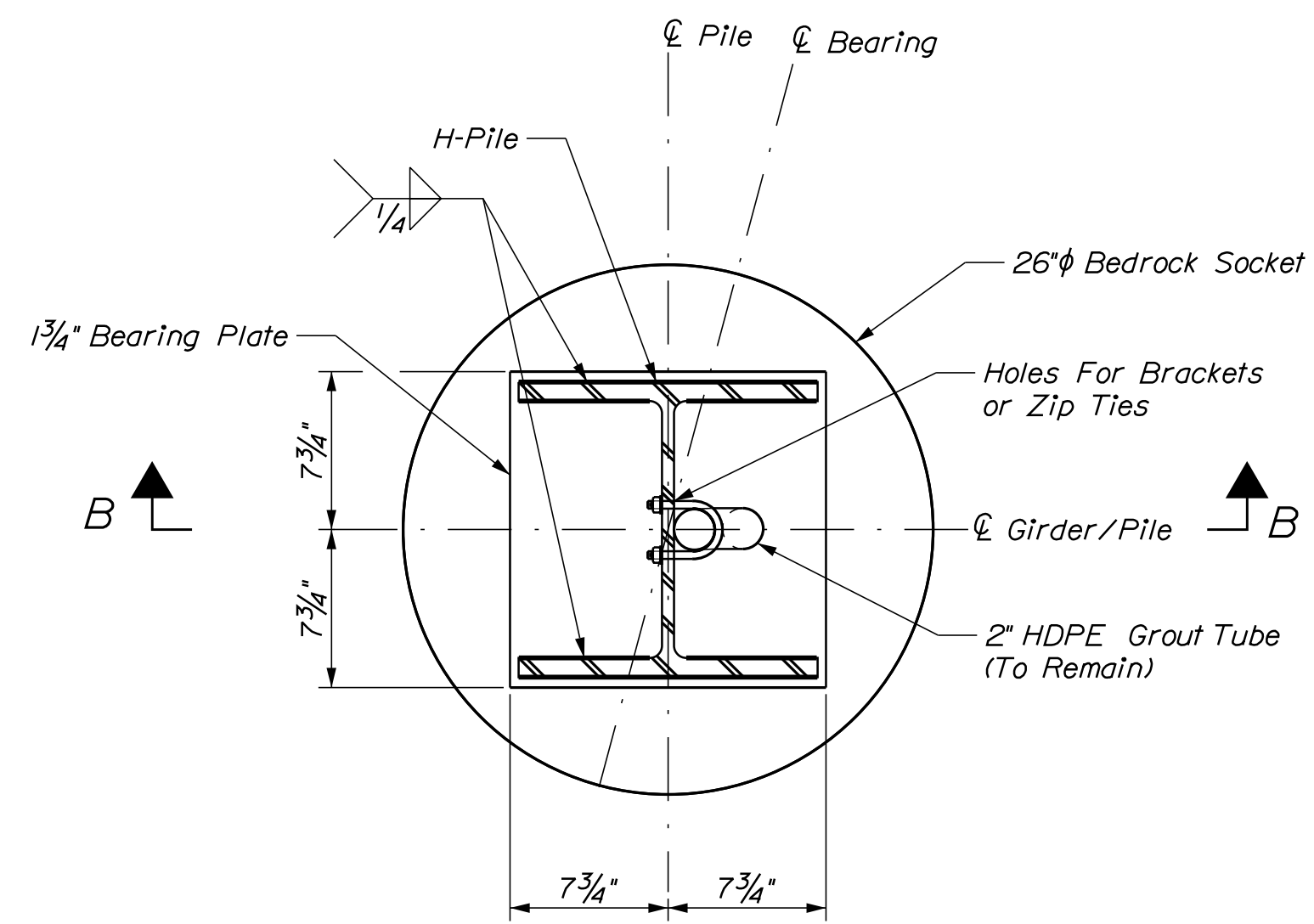
SHEET NUMBER

35

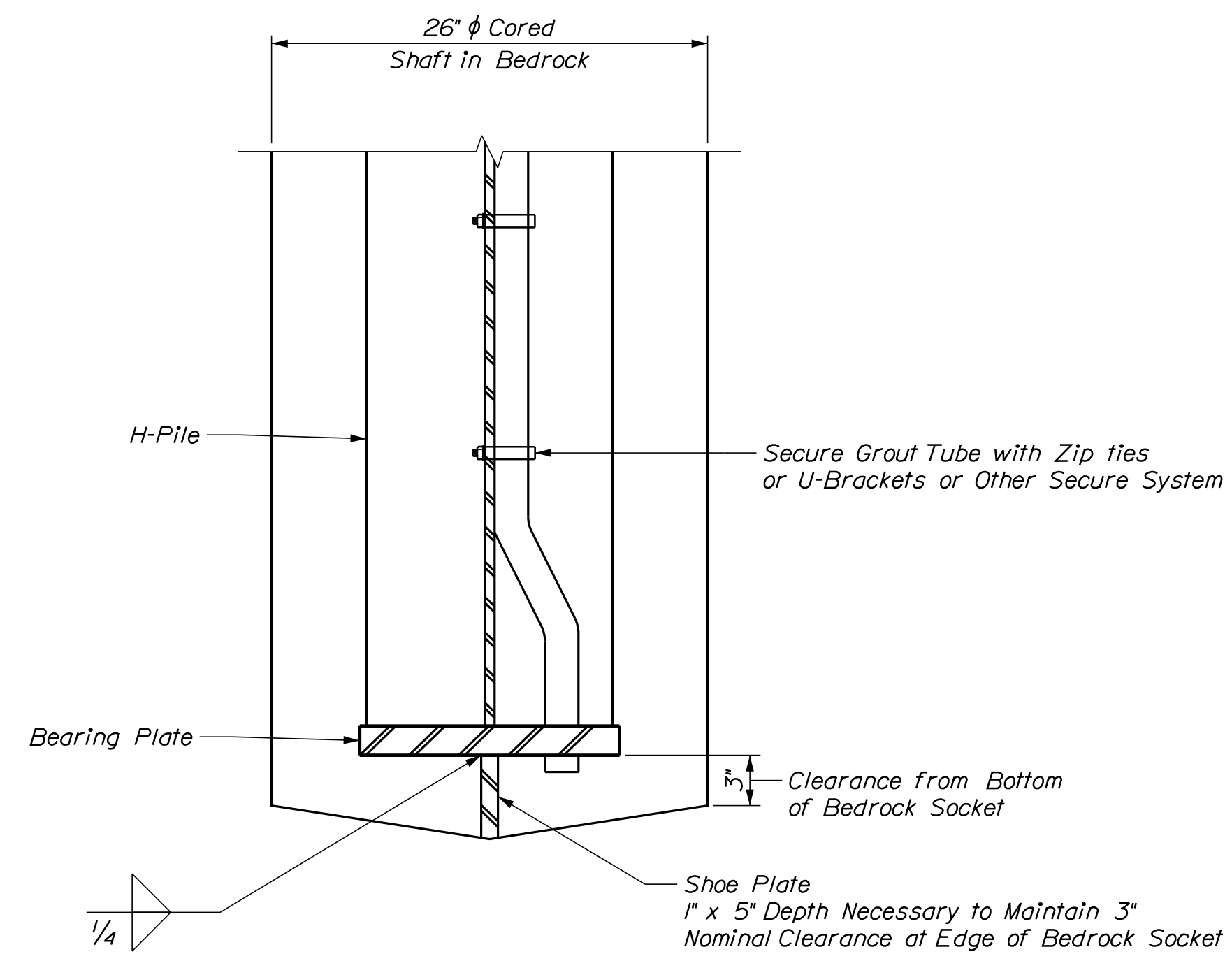
OF 53



ROCK SOCKETED PILE DETAIL



SECTION A-A  
(Shown prior to grouting)



SECTION B-B  
(Shown prior to grouting)

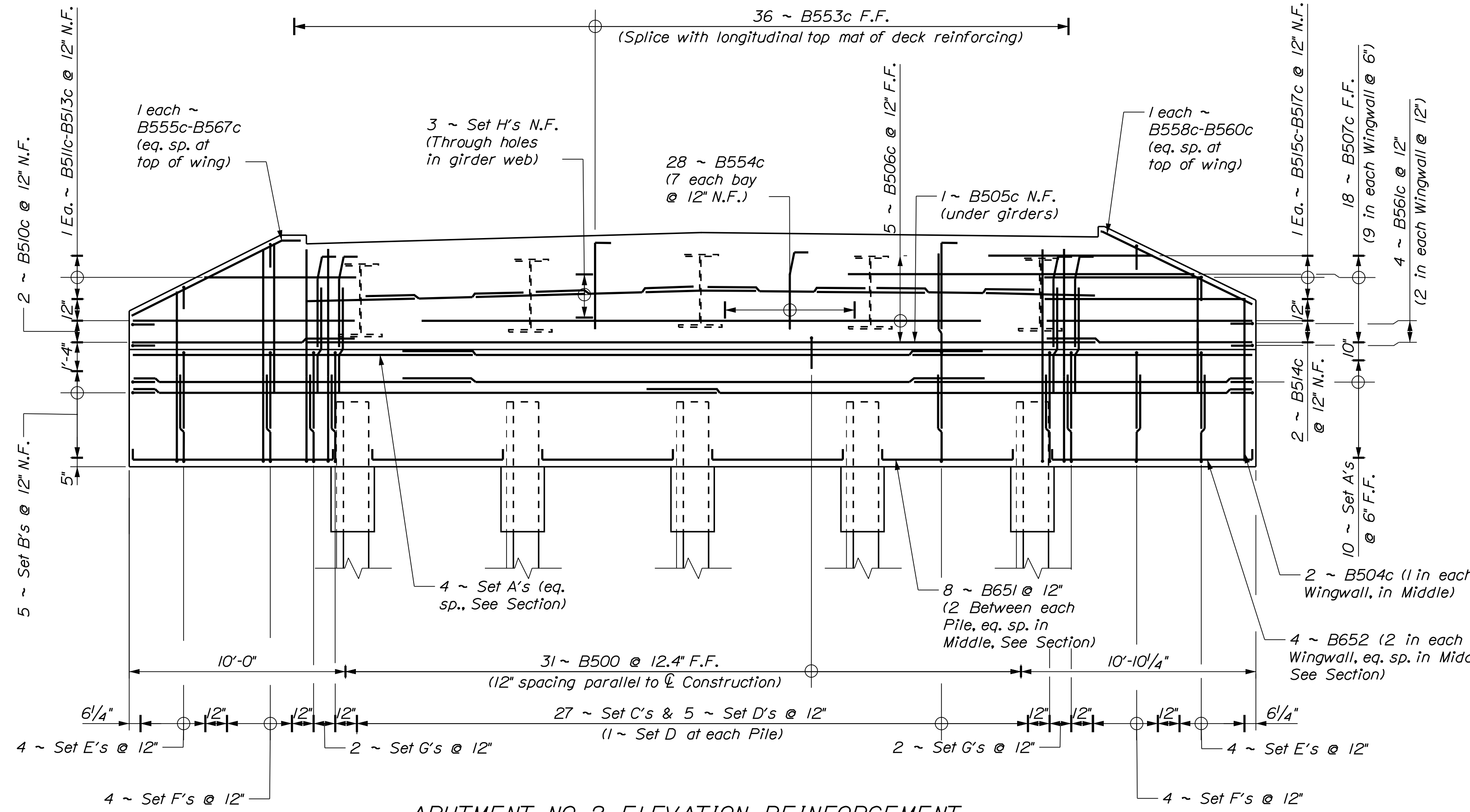
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500		WIN 23505.00		BRIDGE NO. 6815		BRIDGE PLANS	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		ABUTMENT NO. 1 ROCK SOCKET DETAILS		SHEET NUMBER		36		OF 53	
PROJ. MANAGER	D. Eaton	BY	IS	DATE	OCT 2022	SIGNATURE	P.E. NUMBER	DATE	
DESIGN-DETAILED	IS	CHECKED-REVIEWED	PAG	DDT					
DESIGNS-DETAILED		REVISIONS 1							
		REVISIONS 2							
		REVISIONS 3							
		REVISIONS 4							
		FIELD CHANGES							



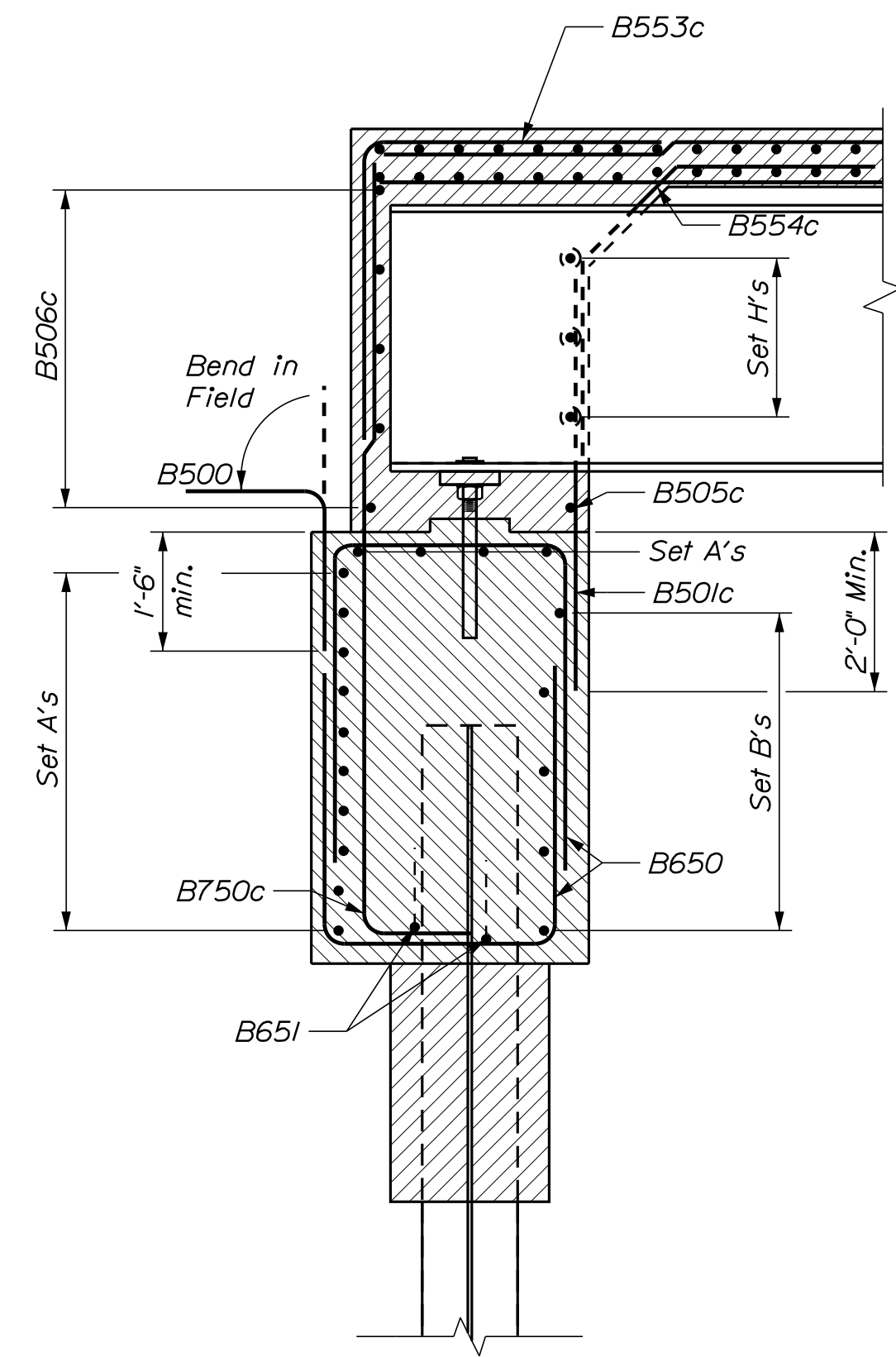
Date: 12/18/2022

Username: devon.c.eaton

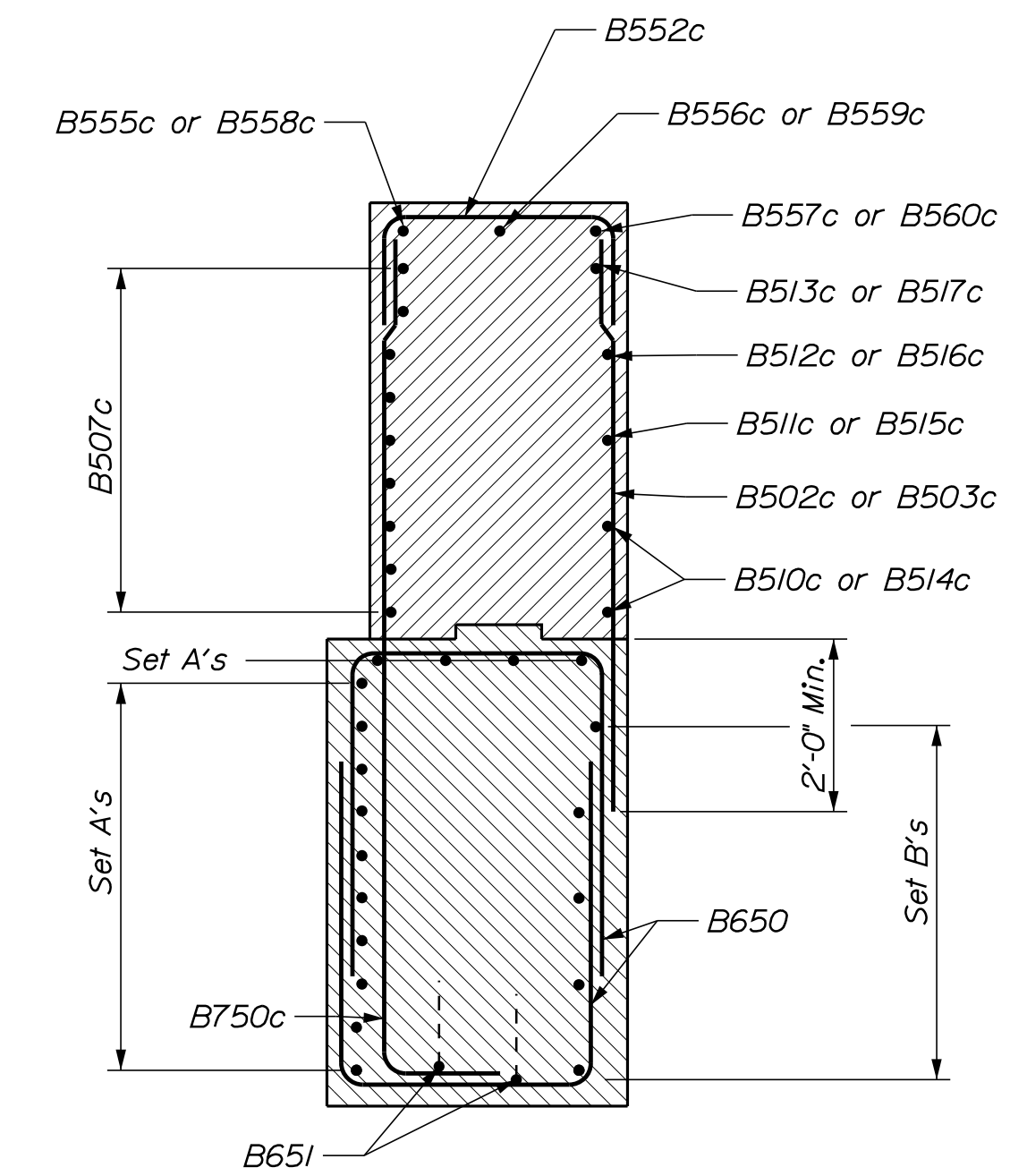
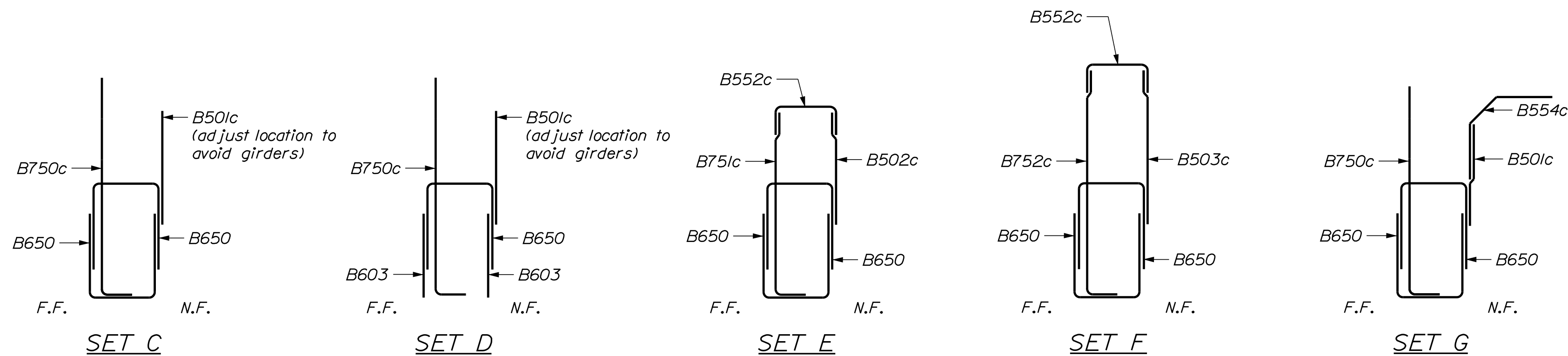
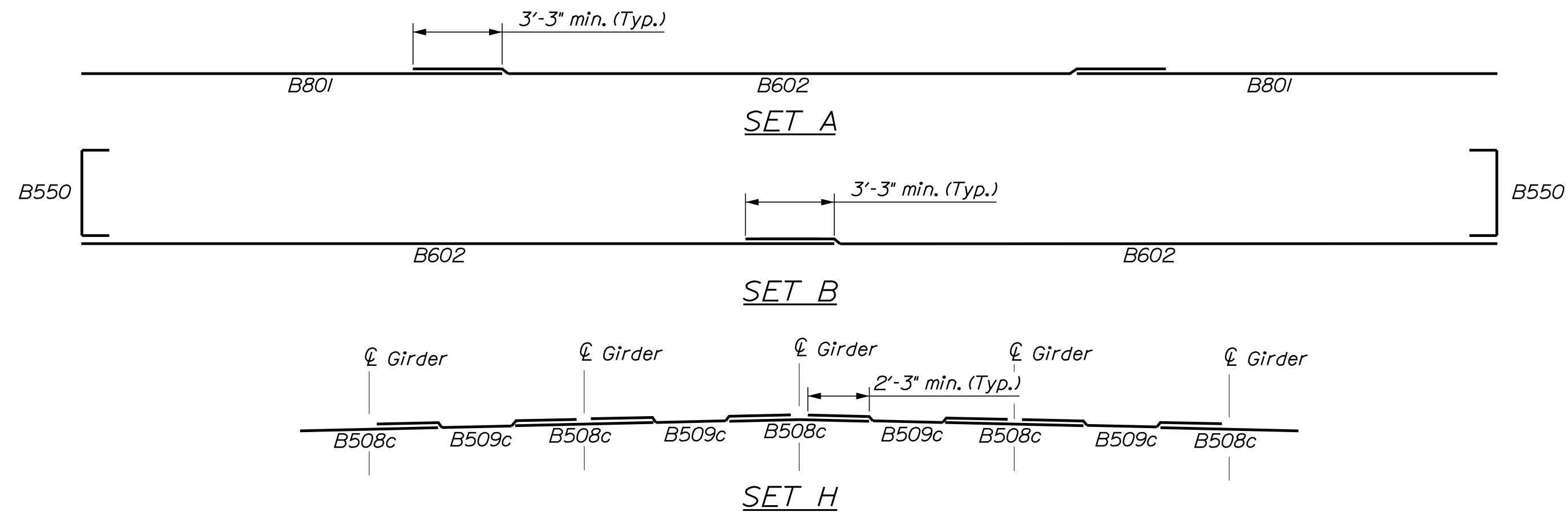
Filename: ...\\00\BRIDGE\MSTA\038\_abut\_6.dgn Division: BRIDGE



ABUTMENT NO. 2 ELEVATION REINFORCEMENT



SECTION AT PILE/GIRDER



WINGWALL SECTION

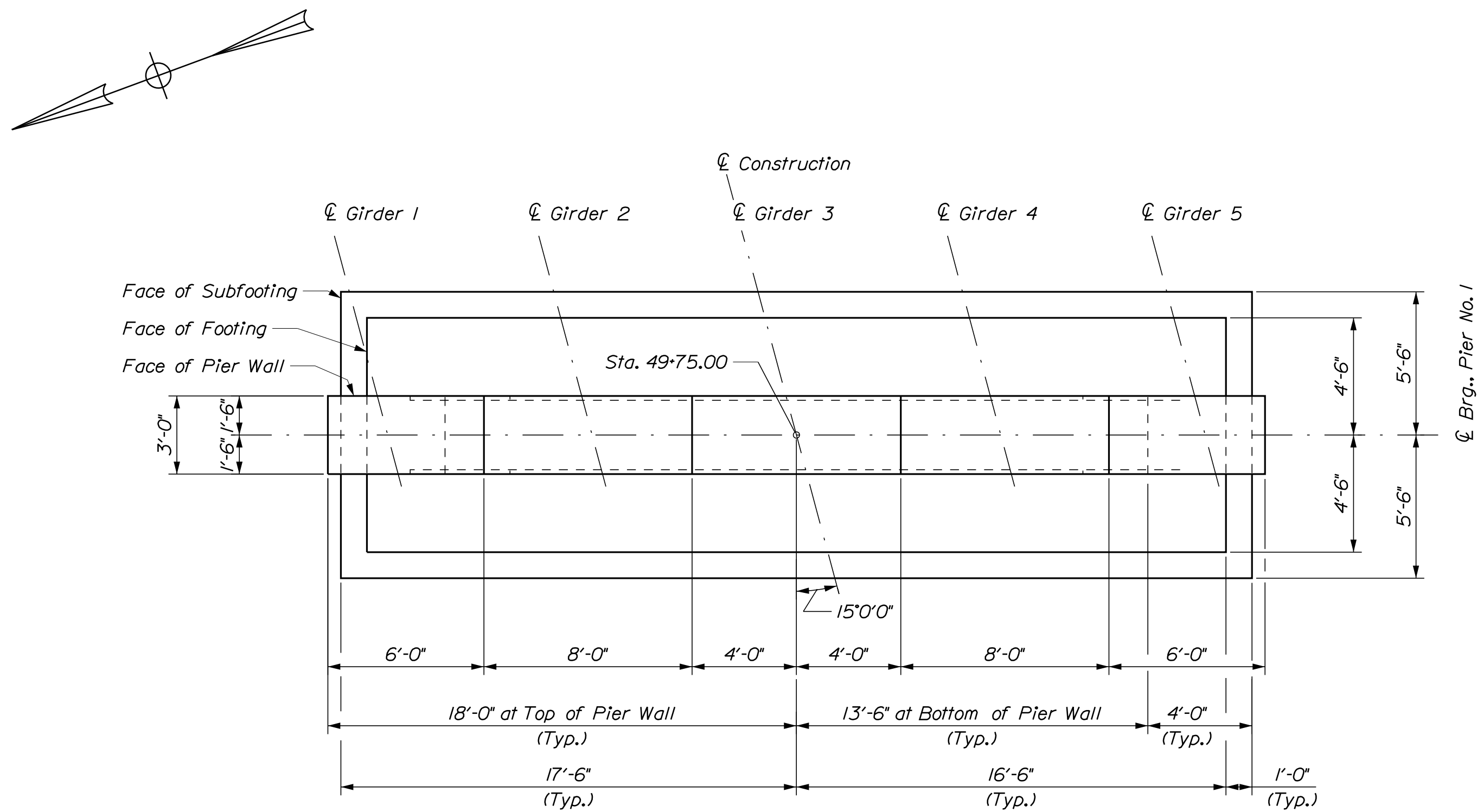
PROJ. MANAGER	D. Eaton	DATE	DATE
DESIGN/DETAILED	IS	OCT 2022	SIGNATURE
CHECKED/REVIEWED	IS	OCT 2022	P.E. NUMBER
DESIGN/DETAILED	DDT		DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Date: 12/18/2022

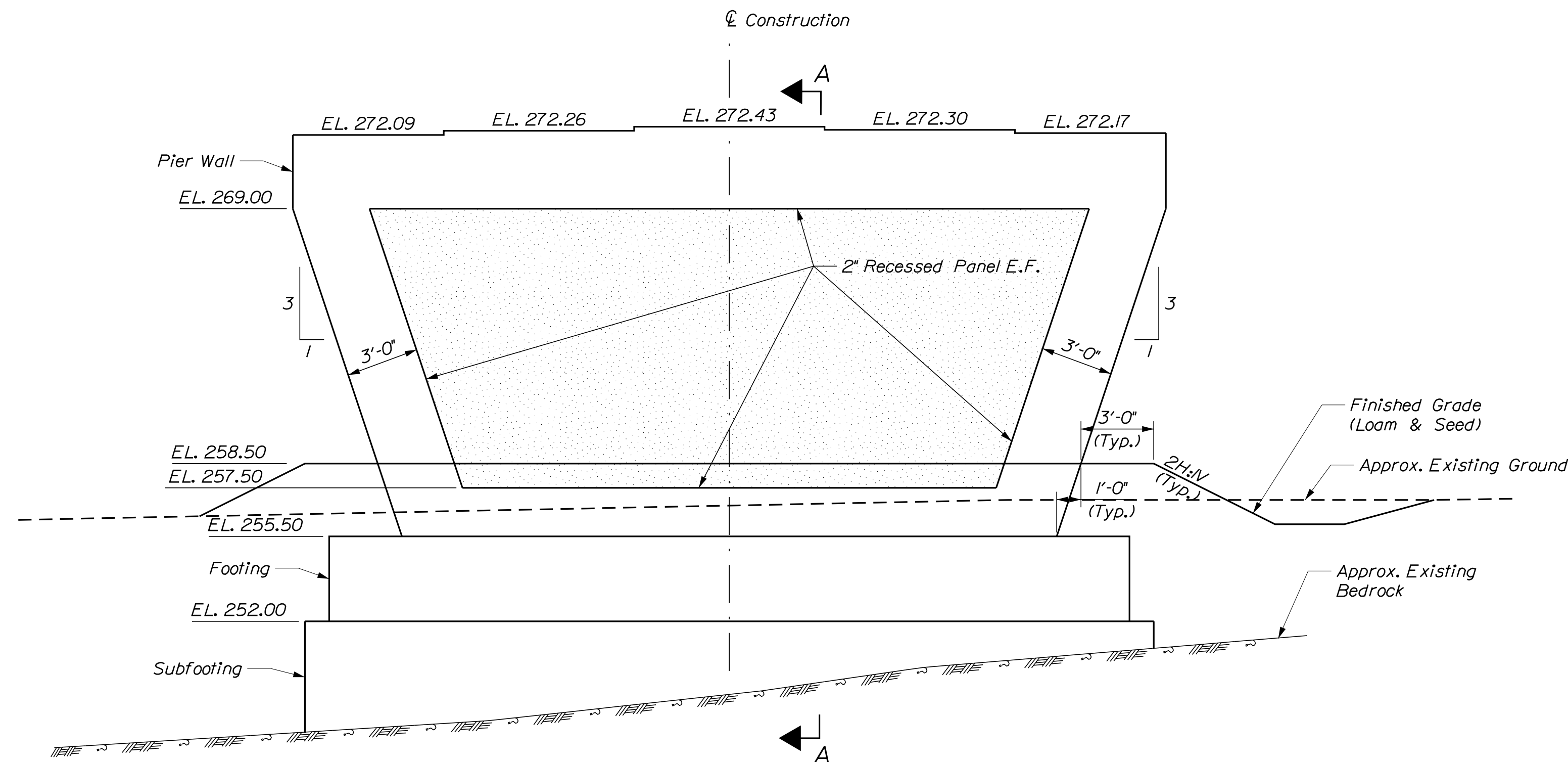
Username: devan.c.eaton

Division: BRIDGE

Filename: ... \00\BRIDGE\MSTA\039\_pier\_1.dgn



PLAN - PIER NO. 1



ELEVATION - PIER NO. 1

PIER NOTES

1. The maximum factored applied footing pressure is 18.46 ksf at the Strength Limit State.
2. Reinforcing steel shall have a minimum concrete cover of 3 inches unless otherwise noted.
3. At the option of the Resident, bedrock which protrudes above a horizontal plane 12 inches below the proposed bottom of footing elevation may be removed. Payment for bedrock removal shall be made under Item No. 206.092 Structural Rock Excavation - Major Structures.
4. Pier footing concrete shall be placed on bedrock cleaned of all weathered rock, loose fractured rock and soil. The bedrock subgrade shall be confirmed to be relatively level. Where the bedrock slope exceeds 4H:1V, the bedrock surface shall be benched to create level steps or made completely level. The Resident shall approve the bedrock subgrade prior to the placement of the pier footing concrete.
5. Prior to placing pier footing concrete, the bedrock subgrade shall be washed with high-pressure water and air.
6. The pier subfooting shall be concrete fill and paid for under Item 502.565. The top surface of the subfooting directly below the footing shall receive a raked finish.

PIER DESIGN CRITERIA

1. Controlling AASHTO Load Combination - Strength I Limit State.
2. Wind: 115 mph.

PIER COFFERDAM NOTES

1. The pier subfooting concrete shall be placed in the dry.
2. The subfooting concrete placement dimensions represent the minimum size necessary to meet design requirements and are not based on the use of any particular sheet pile section.
3. The horizontal pay limit for subfooting concrete shall be to the dimensions shown on the plans. No additional payment will be made for concrete placed outside of these limits.
4. When sheet piling is used for cofferdams, appropriate rolled corners shall be used, and the inside face of the sheet piling shall be at or outside of the subfooting concrete dimensions shown.

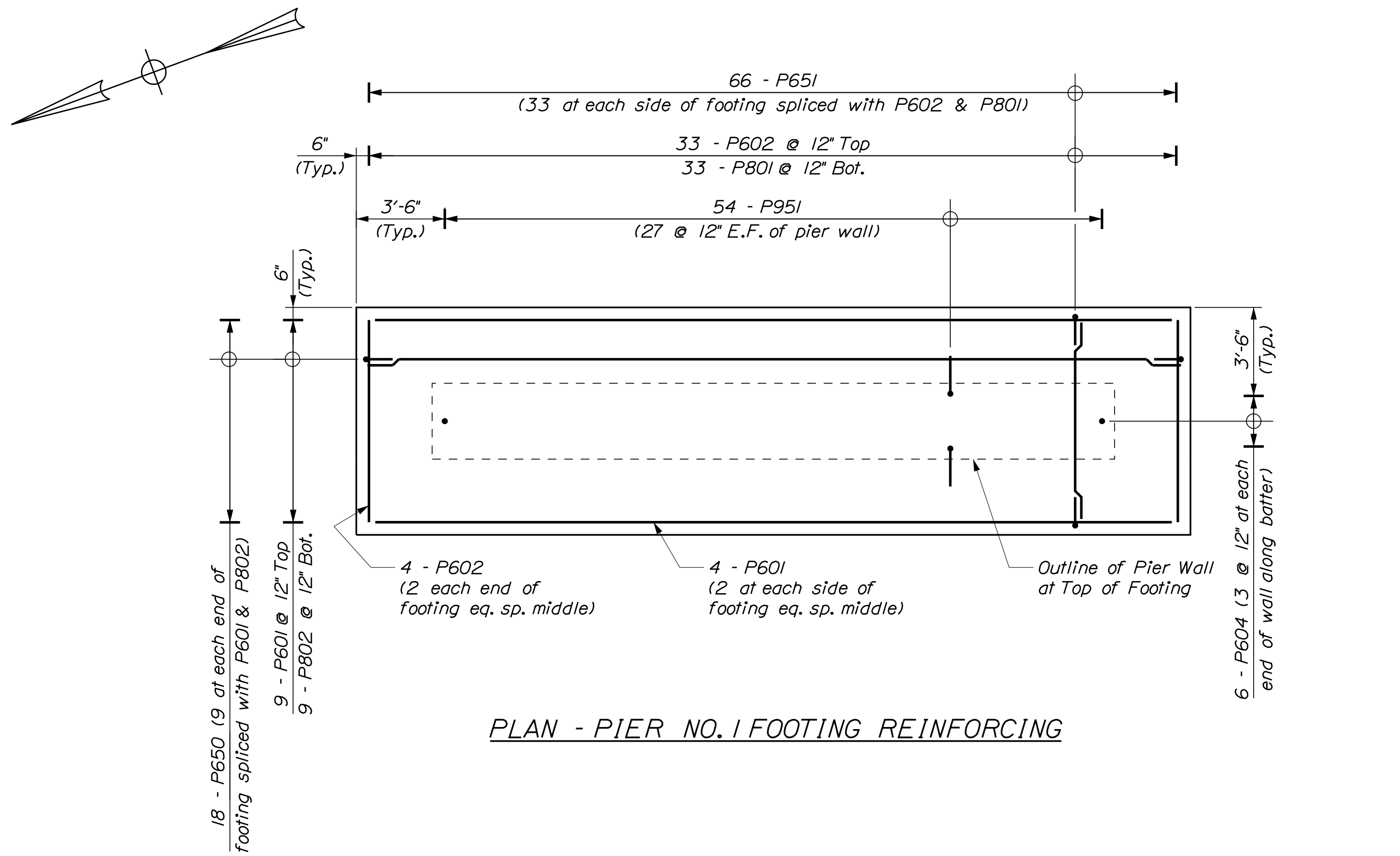
STATE OF MAINE	BRIDGE NO. 6815	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	WIN	23505.00
	2350500	

PROJ. MANAGER	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN DETAILED	OCT 2022			
CHECKED/REVIEWED	OCT 2022			
DESIGN DETAILED				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

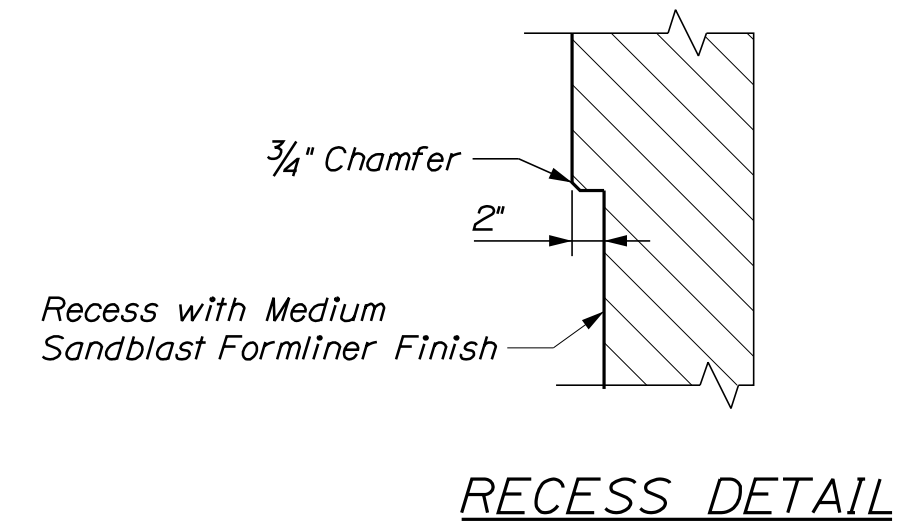
ARMSTRONG ROAD BRIDGE	
OVER INTERSTATE - 95	
OAKLAND & WATERVILLE KENNEBEC COUNTY	
PIER DETAILS	

SHEET NUMBER	39
OF 53	

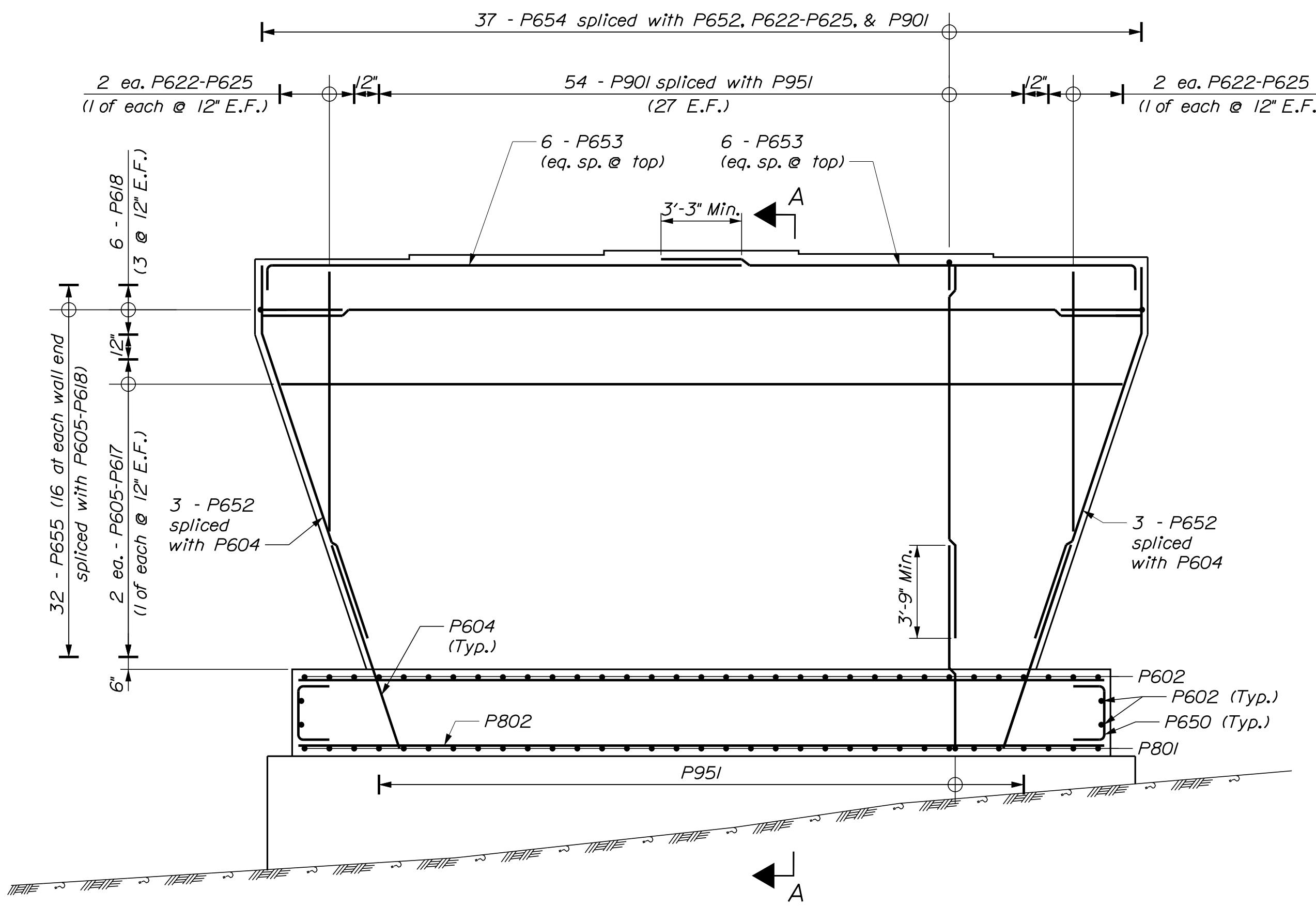




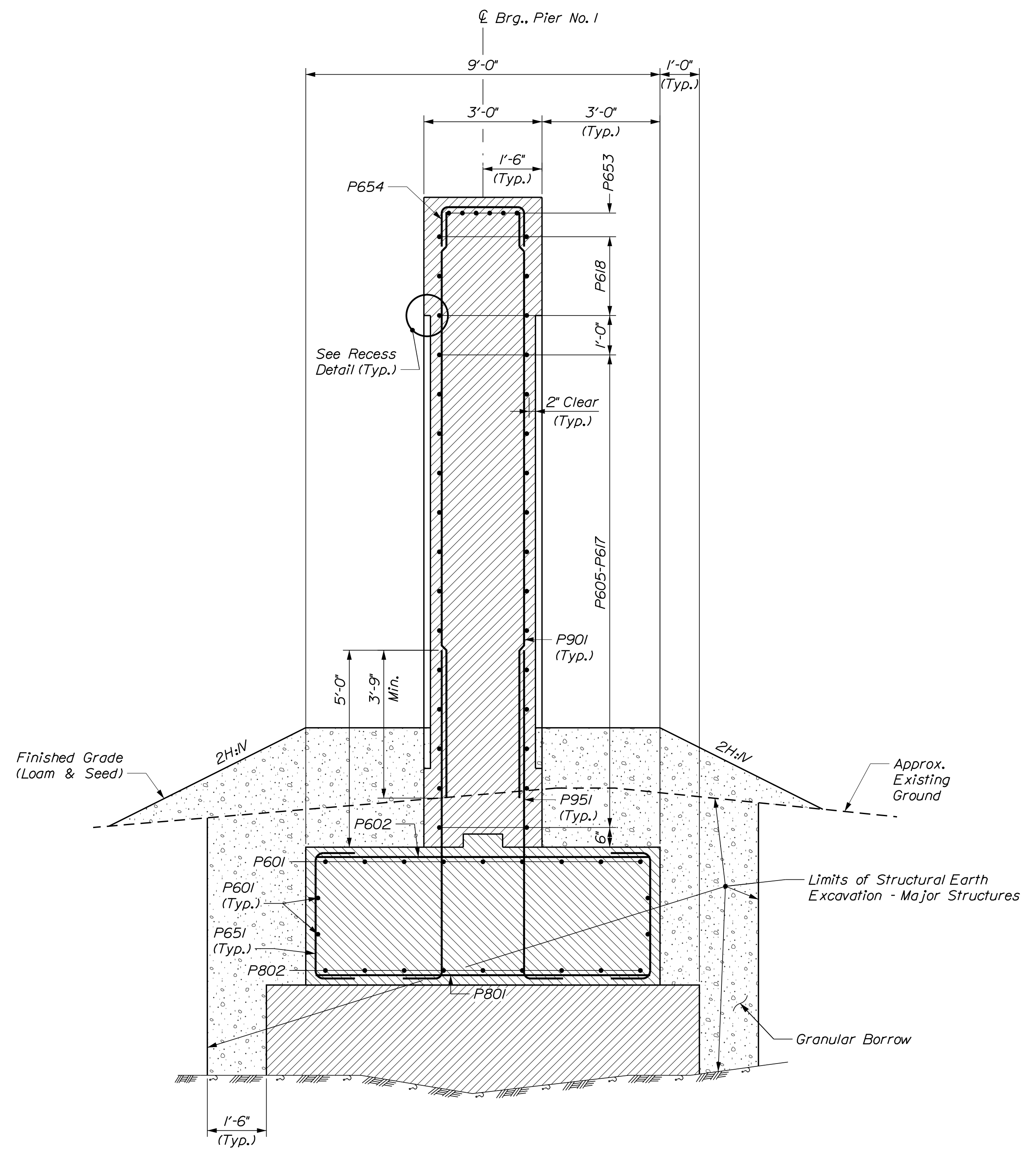
PLAN - PIER NO. 1 FOOTING REINFORCING



RECESS DETAIL



ELEVATION - PIER NO. 1 REINFORCING



SECTION A-A

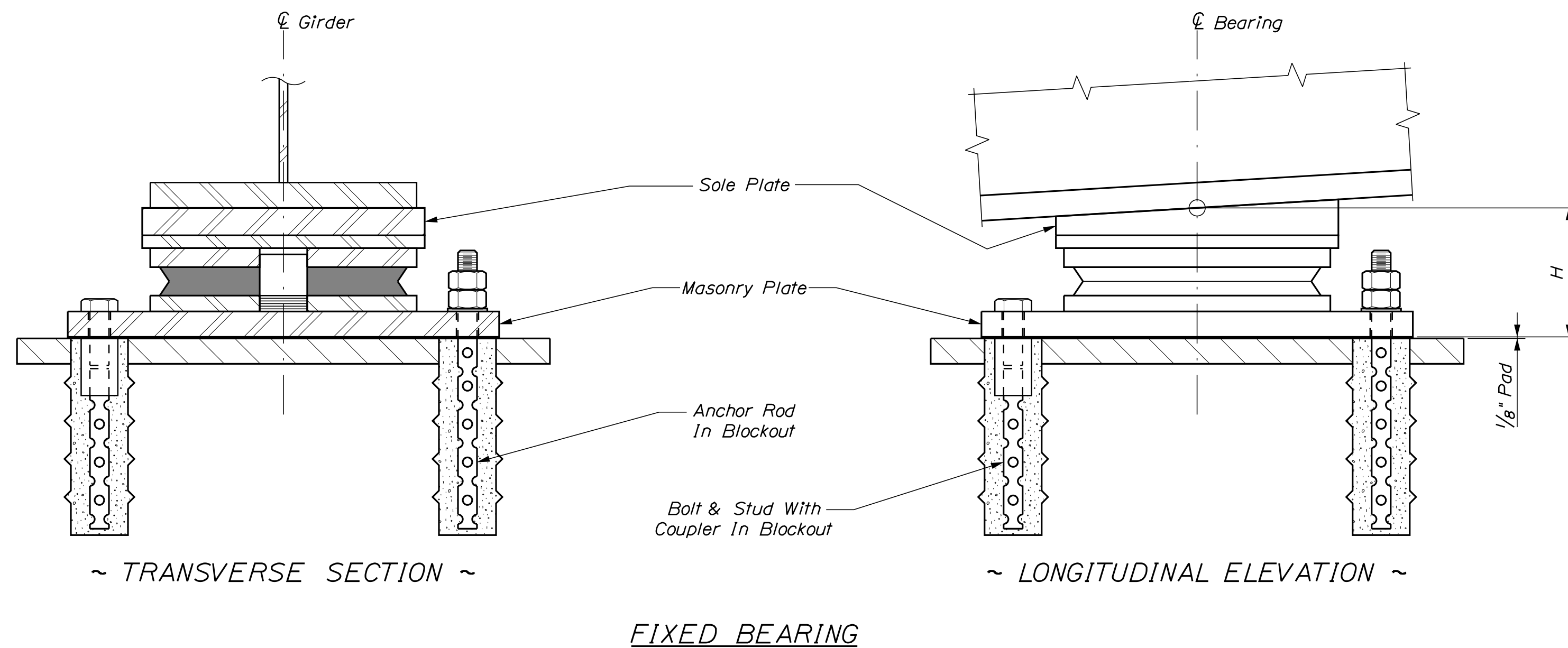
STATE OF MAINE	BRIDGE NO. 8815	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	WIN	23505.00
	2350500	

PROJ. MANAGER	D. Eaton	DATE	DATE
DESIGN DETAILED	IS	OCT 2022	
CHECKED/REVIEWED	PAG	OCT 2022	SIGNATURE
DESIGN DETAILED	DOT		
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ARMSTRONG ROAD BRIDGE	PIER REINFORCING
OVER INTERSTATE - 95	
OAKLAND & WATERVILLE KENNEBEC COUNTY	

SHEET NUMBER	40
	OF 53

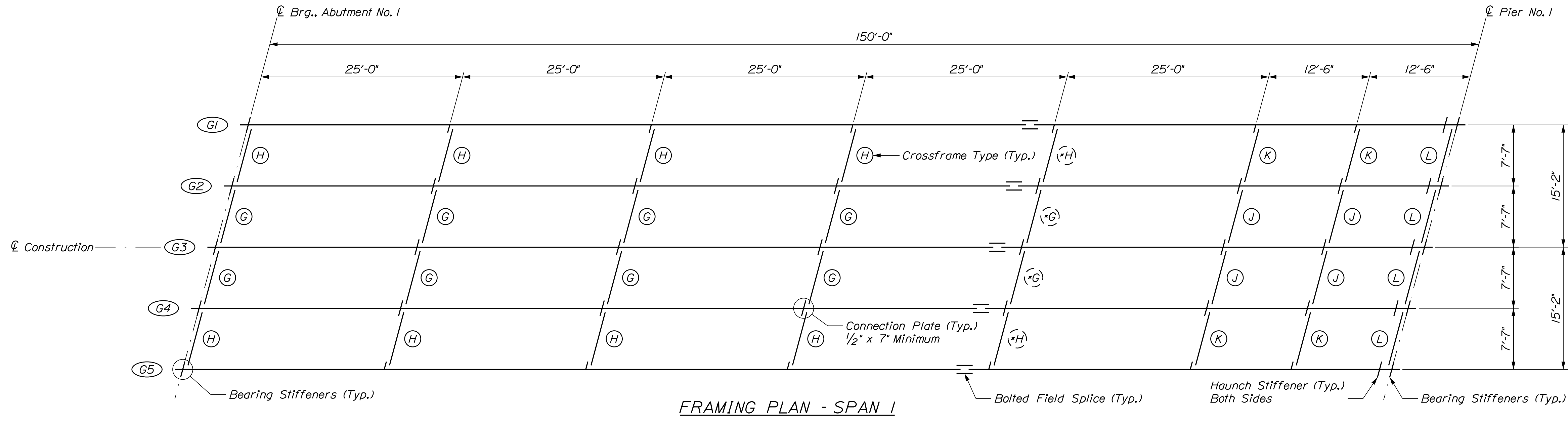




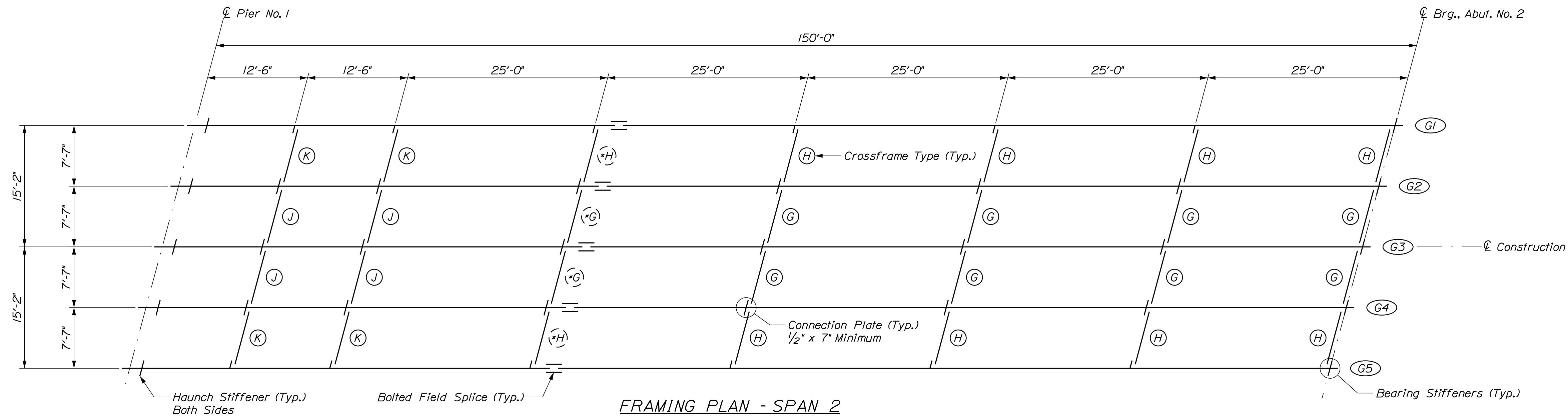
**DISC BEARING NOTES**

1. The actual dimension "H" shall be the responsibility of the Contractor. Dimensions and sizes of plates not shown are dependent on design loads, capacity and the manufacturer of the bearings. The shop drawings, prepared by the manufacturer, shall provide all pertinent bearing information. The final bearing pedestal elevations shall be determined by the Contractor and submitted with the shop drawings for approval prior to construction of the substructure units.
2. Masonry plates shall be placed on 1/8" thick preformed pads in accordance with the specifications.
3. All steel, unless otherwise specified, shall meet the requirements of ASTM A709, Grade 50.
4. Bearing anchorage shall be either Anchor Rod with double nuts and washers in blockout, or Bolt & Stud with Coupler in blockout, at the Contractor's option.
5. Anchorage spacing shall be coordinated with the bearing manufacturer.
6. Anchor bolts shall meet the requirements of ASTM A325, Type I Galvanized.
7. Anchor rods shall meet the requirements of ASTM F1554, Grade 105 and shall be swaged on the embedded portion of the rod.
8. Heavy hex nuts for anchor rods shall meet the requirements of ASTM A563, Grade D or DH.
9. Anchor bolts, rods, washers and nuts shall be galvanized to ASTM A153 or ASTM B695, Class 50, Type I. Payment for galvanizing will be considered incidental to the disc bearing pay items.
10. For pier bearings, all steel located below the polyether urethane disc shall be coated in accordance with Standard Specifications, Section 506, Protective Coating - Steel (Thermal Spray Coating). Payment for Coatings for Disc Bearings will be considered incidental to Item 523.5551, Pot or Disc Bearings, Fixed.
11. Average compressive stresses on the disc shall be computed using the minimum plan area of the unstressed disc, excluding the area of any holes.
12. The design temperature range shall be 125 °F (-20 °F to 105 °F).
13. Design of the sole plates and masonry plates is the responsibility of the Bearing Manufacturer. Payment for these shall be made under Item 523.5551, Pot or Disc Bearings, Fixed.
14. Sole plate shall be beveled according to the grade defined at each substructure location in the Disc Bearing Design Table.
15. Strength Limit State rotations shown in the Disc Bearing Design Table do not include an allowance for uncertainties of 0.005 radians, as defined in AASHTO LRFD Bridge Design Specifications, 9th Edition 2020.
16. Bearings shall be designed with a thermal load factor of 1.0.
17. All bearings shall be marked prior to shipping. The marks shall include the bearing location on the bridge, and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed.
18. Bearing installation shall be in strict conformance with the Standard Specifications and the manufacturer's recommendations.

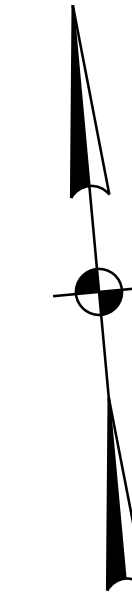
DISC BEARING DESIGN TABLE																	
Girder	Location	Bearing Type	Design Loads Per Bearing (kips)										Dim. "H" (in.) (Note No. 1)	Design Rotation (Radians) (Note No. 15)		Total Long. Movement (in.)	Sole Plate Bevel
			Vertical				Horizontal							Strength	Service		
			Strength	Extreme Event	Service		Strength		Extreme Event		Service						
			Total Load	Total Load	Dead Load	Total Load	Longitudinal	Transverse	Longitudinal	Transverse	Longitudinal	Transverse					
Exterior	Pier	Fixed	620	319	237	524	28	0	80	80	14	5	5.25	0.0096	0.0057	-	-
Interior	Pier	Fixed	717	364	267	606	31	0	91	91	16	5	5.25	0.0086	0.0057	-	-



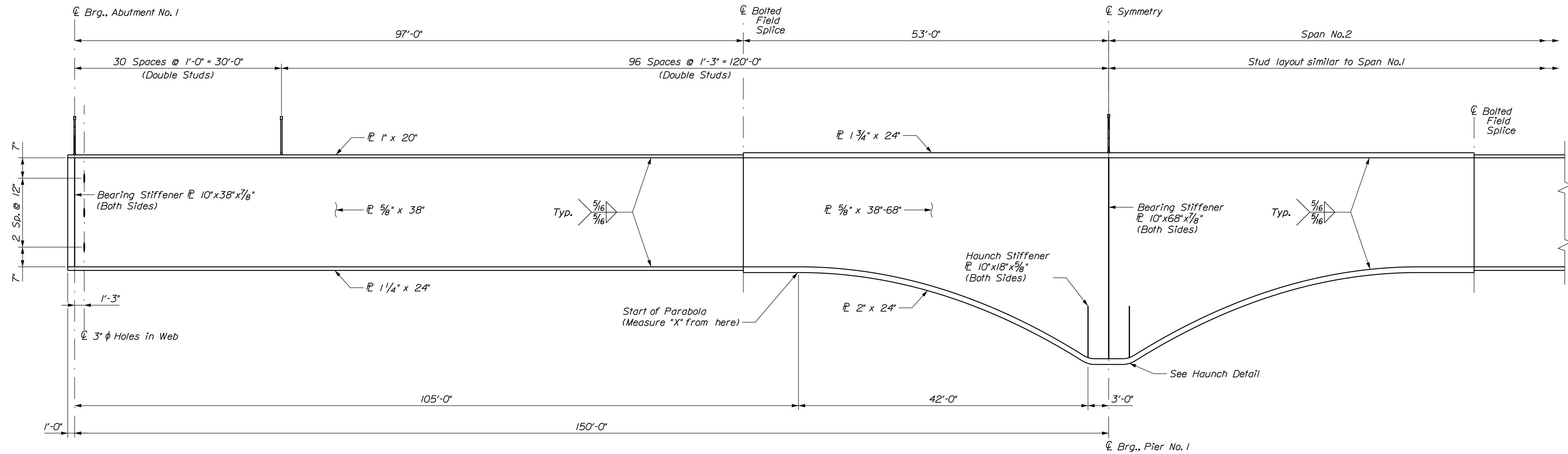
FRAMING PLAN - SPAN 1



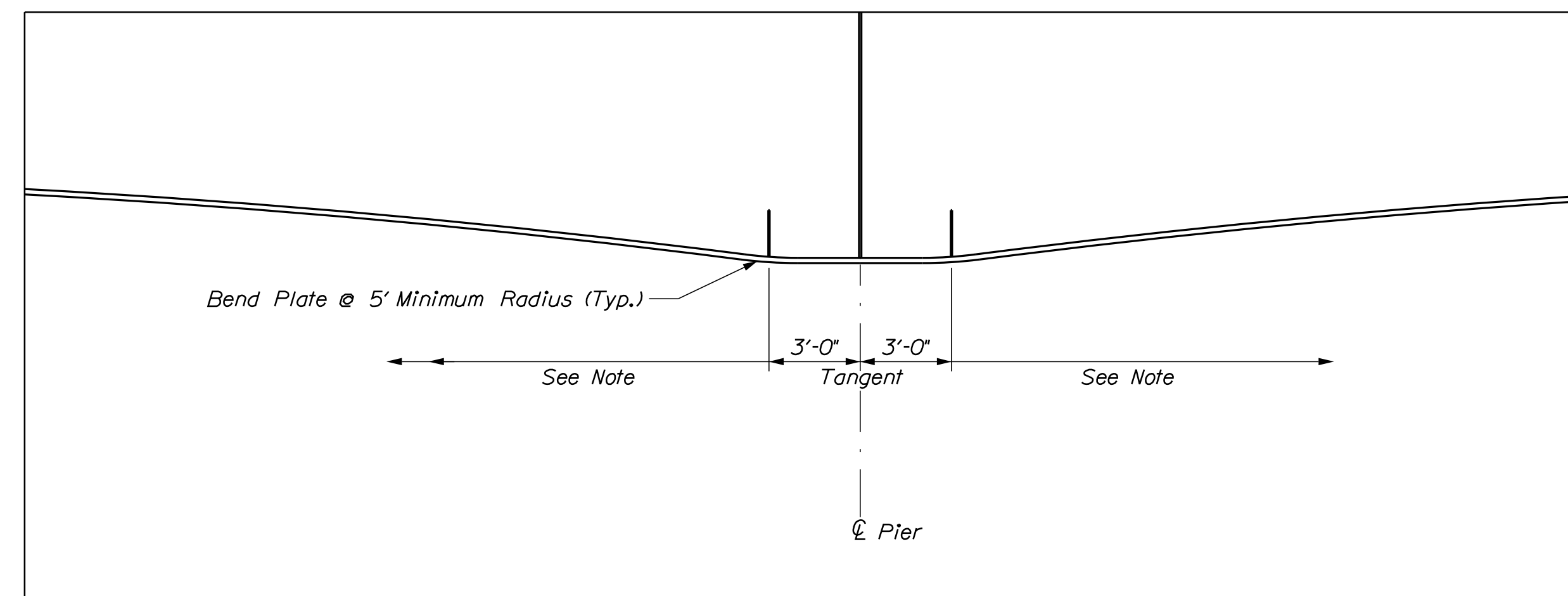
FRAMING PLAN - SPAN 2



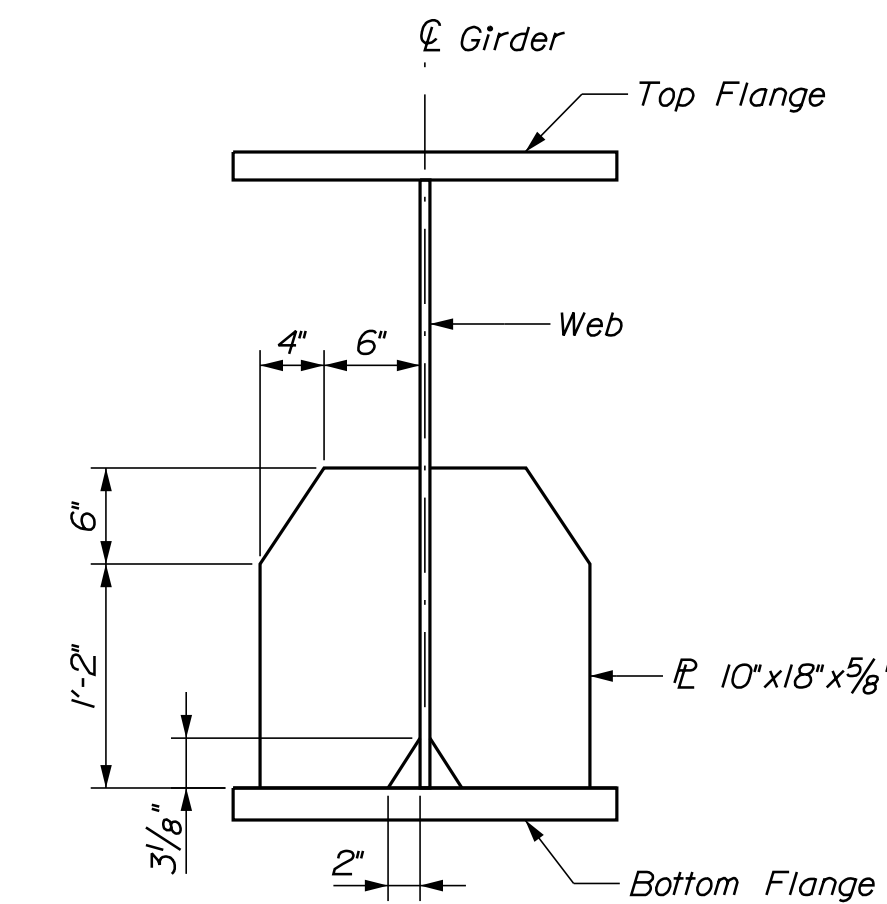
PROJ. MANAGER	D. Eaton	BY	DATE
DESIGN-DETAILED	E. Brewer	M.R.P.	OCT 2022
CHECKED-REVIEWED	D. Taylor	J. LeVitt	NOV 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



**GIRDER ELEVATION - SPAN 1**  
 (Span No.2 Symmetrical)  
 506 Studs Per Girder x 5 Girder = 2,530 Studs



**DETAIL**



**HAUNCH STIFFENER DETAIL**

Parabolic Web Dimension Notes:

1. Web Depth = Start Depth + Depth Change \* (Distance From Start/Parabola Length)<sup>2</sup>  
 $D = 38 + 30 * (X/42)^2$
2. Depth Change = Algebraic difference in web depth between start location and Pier.  
 (See Web Haunch Detail)
3. X is measured in feet. D is normal to the top of the Web.

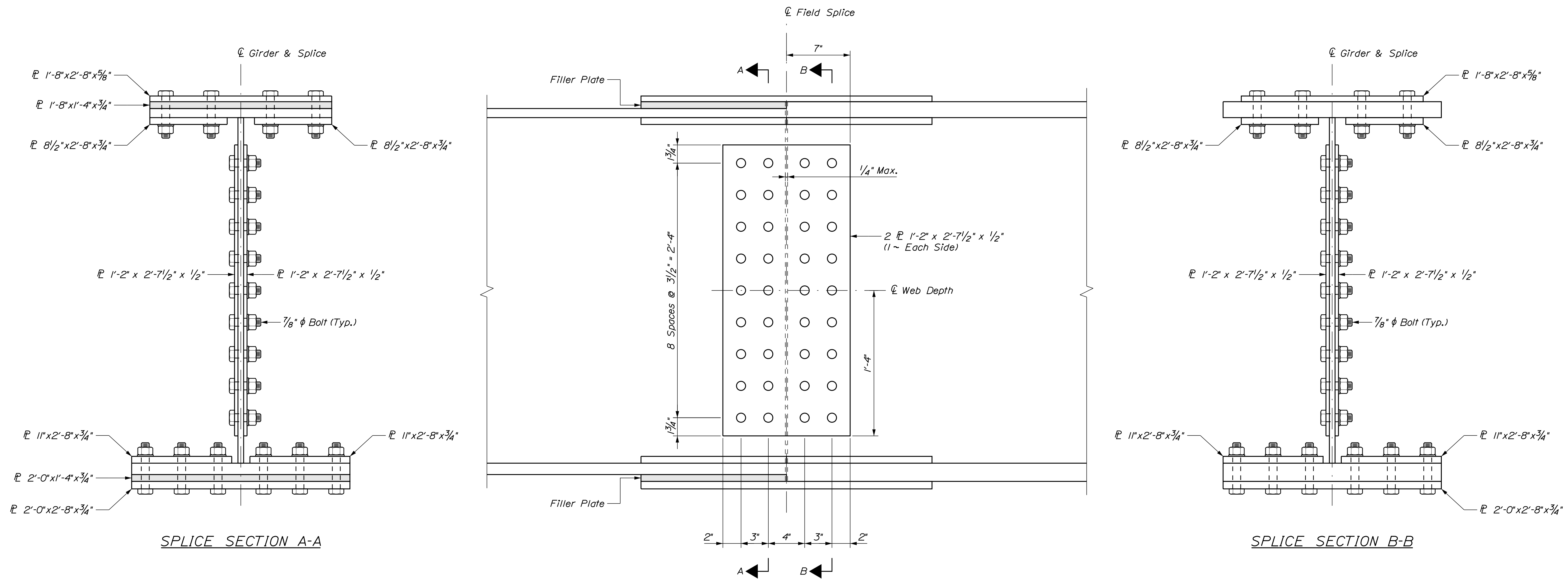
STATE OF MAINE	BRIDGE NO. 6815	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	WIN	23505.00
		2350500

PROJ. MANAGER	DATE
DESIGN DETAILED	OCT 2022
CHECKED/REVIEWED	NOV 2022
DESIGN DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

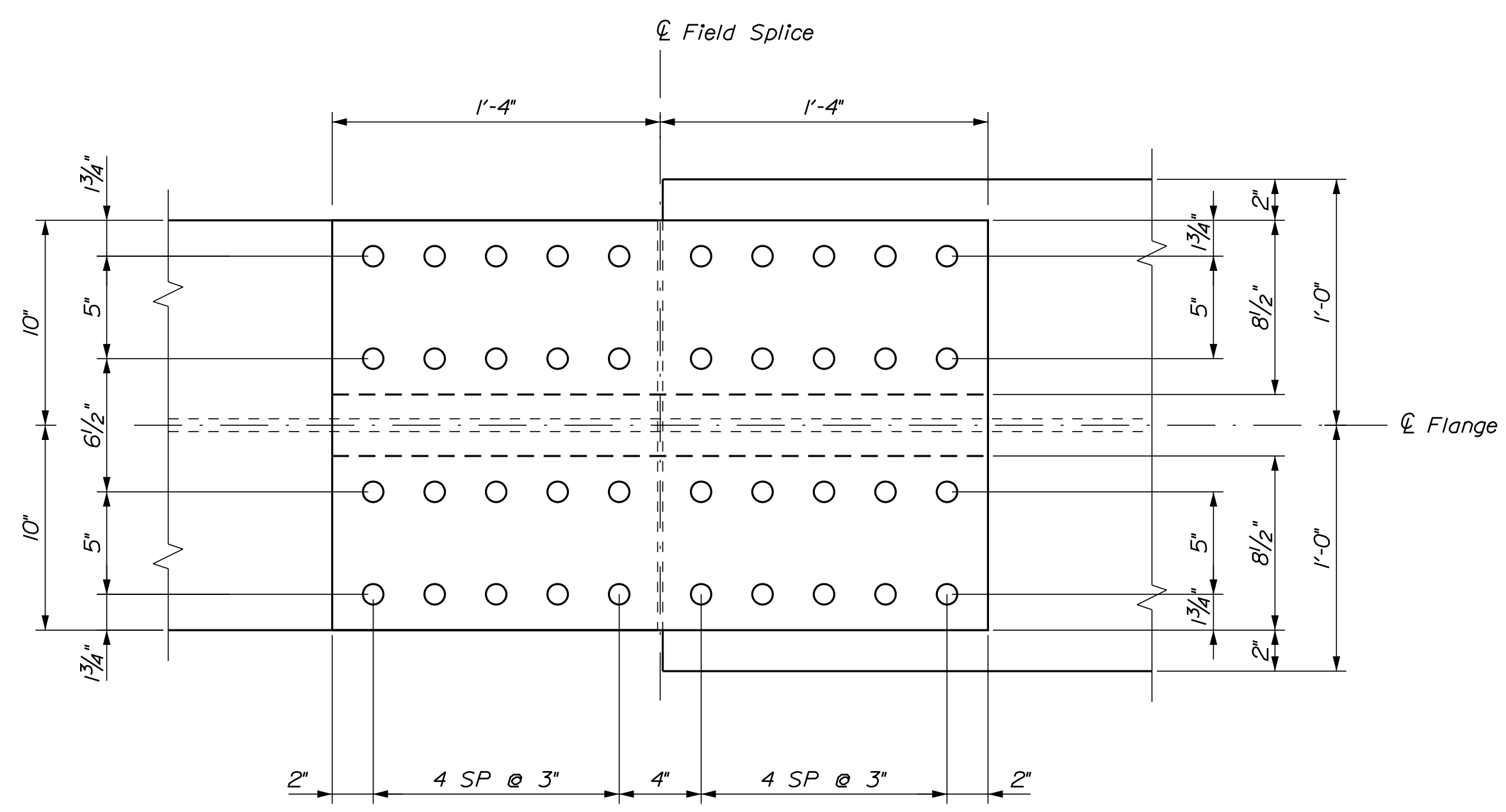
BY	SIGNATURE
M.A.P.	
J. BRUNELLE	
DATE	
P.E. NUMBER	

ARMSTRONG ROAD BRIDGE	GIRDER ELEVATION
OVER INTERSTATE - 95	
OAKLAND & WATERVILLE KENNEBEC COUNTY	

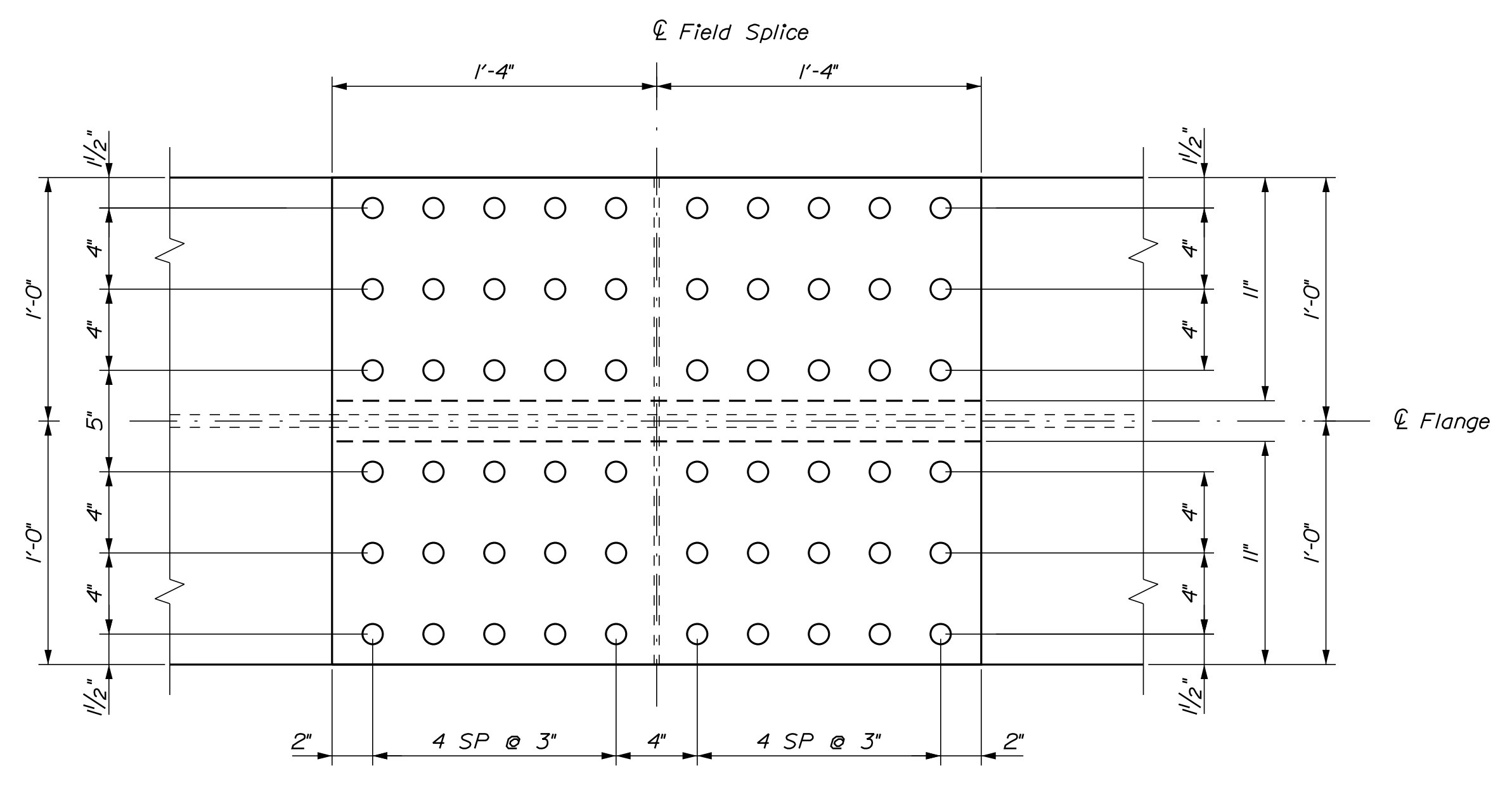
SHEET NUMBER
43
OF 53



**SPLICE ELEVATION**  
Bolts On Flange Plates Not Shown For Clarity

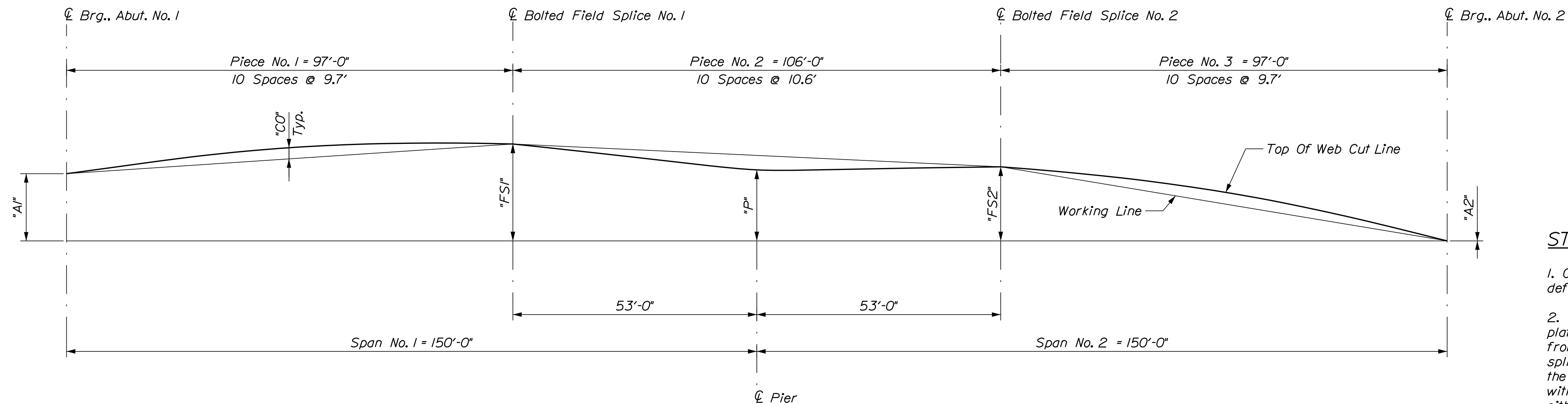


**TOP FLANGE SPLICE**



**BOTTOM FLANGE SPLICE**

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY		BRIDGE NO. 6815	
GIRDER FIELD SPLICE DETAILS		BRIDGE PLANS	
PROJ. MANAGER D. Eaton	BY M.A.P. J. LeVith	DATE OCT 2022 NOV 2022	SIGNATURE
DESIGN/DETAILED E. Brewer	CHECKED/REVIEWED D. Taylor	DESIGN/DETAILED	P.E. NUMBER
REVISIONS 1	REVISIONS 2	REVISIONS 3	DATE
REVISIONS 4	FIELD CHANGES		
SHEET NUMBER		44	
		OF 53	



CAMBER DIAGRAM

Girder	AI	FS1	P	FS2	A2
1	3.10	3.92	3.37	2.83	0.00
2	3.01	3.88	3.32	2.83	0.00
3	2.92	3.81	3.27	2.80	0.00
4	2.83	3.74	3.22	2.77	0.00
5	2.73	3.65	3.17	2.70	0.00

Girder	AI	Piece No. 1										FS1
		9.7'	19.4'	29.1'	38.8'	48.5'	58.2'	67.9'	77.6'	87.3'	97.0'	
1	0.00"	1 9/16"	3 1/16"	4 3/8"	5 3/16"	5 7/16"	5 1/4"	4 1/2"	3 9/16"	1 3/16"	0.00"	
2	0.00"	1 5/8"	3 1/4"	4 1/16"	5 9/16"	5 7/8"	5 5/8"	4 7/8"	3 9/16"	1 3/16"	0.00"	
3	0.00"	1 5/8"	3 1/4"	4 5/8"	5 1/2"	5 3/16"	5 9/16"	4 3/16"	3 9/16"	1 5/16"	0.00"	
4	0.00"	1 9/16"	3 3/16"	4 1/2"	5 1/16"	5 3/16"	5 9/16"	4 3/16"	3 9/16"	1 5/16"	0.00"	
5	0.00"	1 7/16"	2 9/16"	4 1/16"	4 9/16"	5 1/4"	5 1/16"	4 3/8"	3 1/4"	1 3/4"	0.00"	

Girder	FS1	Piece No. 2										FS2
		10.6'	21.2'	31.8'	42.4'	53.0'	63.6'	74.2'	84.8'	95.4'	106.0'	
1	0.00"	0 1/8"	0 1/8"	0"	0"	0"	0"	0"	0 1/8"	0 1/8"	0.00"	
2	0.00"	0"	- 0 1/16"	- 0 1/4"	- 0 3/8"	- 0 5/16"	- 0 3/8"	- 0 1/4"	- 0 1/16"	0"	0.00"	
3	0.00"	0"	- 0 1/16"	- 0 1/4"	- 0 3/8"	- 0 5/16"	- 0 3/8"	- 0 1/4"	- 0 1/16"	0"	0.00"	
4	0.00"	0"	- 0 1/16"	- 0 1/4"	- 0 3/8"	- 0 5/16"	- 0 3/8"	- 0 1/4"	- 0 1/16"	0"	0.00"	
5	0.00"	0 1/8"	0 1/8"	0"	0"	0"	0"	0 1/8"	0 1/8"	0.00"		

Girder	FS2	Piece No. 3										A2
		9.7'	19.4'	29.1'	38.8'	48.5'	58.2'	67.9'	77.6'	87.3'	97.0'	
1	0.00"	1 3/16"	3 1/16"	4 5/8"	5 3/8"	5 11/16"	5 1/16"	4 5/8"	3 1/16"	1 3/16"	0.00"	
2	0.00"	2"	3 1/16"	5"	5 3/16"	6 1/8"	5 7/8"	5"	3 1/16"	1 5/16"	0.00"	
3	0.00"	2"	3 1/16"	5"	5 3/16"	6 1/8"	5 7/8"	5"	3 1/16"	1 5/16"	0.00"	
4	0.00"	2"	3 1/16"	5"	5 3/16"	6 1/8"	5 7/8"	5"	3 1/16"	1 5/16"	0.00"	
5	0.00"	1 3/16"	3 1/16"	4 5/8"	5 3/8"	5 11/16"	5 1/16"	4 5/8"	3 1/16"	1 3/16"	0.00"	

STRUCTURAL STEEL NOTES

- Camber ordinates, as shown, are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
- No transverse butt weld splices will be allowed in the flange plates or web plates within 10 feet or 10 percent of the span length (whichever is greater) from the points of maximum negative moment or maximum positive moment. Butt weld splices in flanges shall be not less than 1 foot from transverse butt welds in the web plates and no transverse web or flange butt welds shall be located within 1 foot of other transverse welds (e.g. connection plates to web welds) on either flange or web. No transverse butt weld splices will be allowed in areas of stress reversal.
- Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be at least 20 feet in length unless otherwise shown on the Plans.
- One longitudinal butt weld splice will be allowed in the web of the haunched sections of the girders. Feathered edges between the longitudinal welds and the bottom flanges will not be allowed.
- Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.
- Crossframe or diaphragm connection plates may be either plumb or normal to top flange.
- All connection plate and stiffener welds shall be 5/16 inch fillet welds.
- Filler plates may be steel conforming to the requirements of ASTM A709, Grade 36.
- At locations marked with an asterisk (\*), the designated diaphragms shall be changed to a Type B diaphragm as required to accommodate the Contractor's deck placement sequence. No extra compensation will be allowed for any diaphragms so substituted, and any additional costs will be considered incidental to Contract items.
- Provide a drip bar on the high side of each pier and abutment on all girders in accordance with Standard Detail 504(10).
- Structural steel was designed with a vertical construction load of 50 lb/sf and a lateral wind velocity during construction of 80 mph.
- All bolts, nuts and washers shall be hot-dip galvanized in accordance with ASTM A 153.
- Bolted field splice connections shall be made using 7/8 inch diameter ASTM F3125, Grade A325 Type 1 high strength bolts. Bolt hole size shall be 15/16 inch diameter. Field splice bolt threads shall be excluded from the shear plane.
- The splice was designed with a Class B slip coefficient.
- Repairs to the Thermal Spray Coating that modify the surface roughness in the area of the faying surfaces shall not be performed without the approval of the Fabrication Engineer.
- Ends of girder webs shall be vertical under full dead load.
- All structural steel including the girders, stiffeners, connection plates, and splice shall be coated with Thermal Spray Coating in accordance with Standard Specifications Section 506, Shop Applied Protective Coating.
- At the Contractor's option, the Diaphragms and Cross Frames may be Hot-Dipped Galvanized in accordance with Standard Specifications Section 506, Shop Applied Protective Coating, as approved by the Resident. Payment will be considered incidental to Item 506.9104, Thermal Spray Coating (Shop Applied), no separate payment will be made.
- Bolted diaphragms or cross frame connections shall be made using 7/8 inch diameter, ASTM F3125, Grade A325 Type 1 high strength bolts. Hole size shall be 15/16 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.

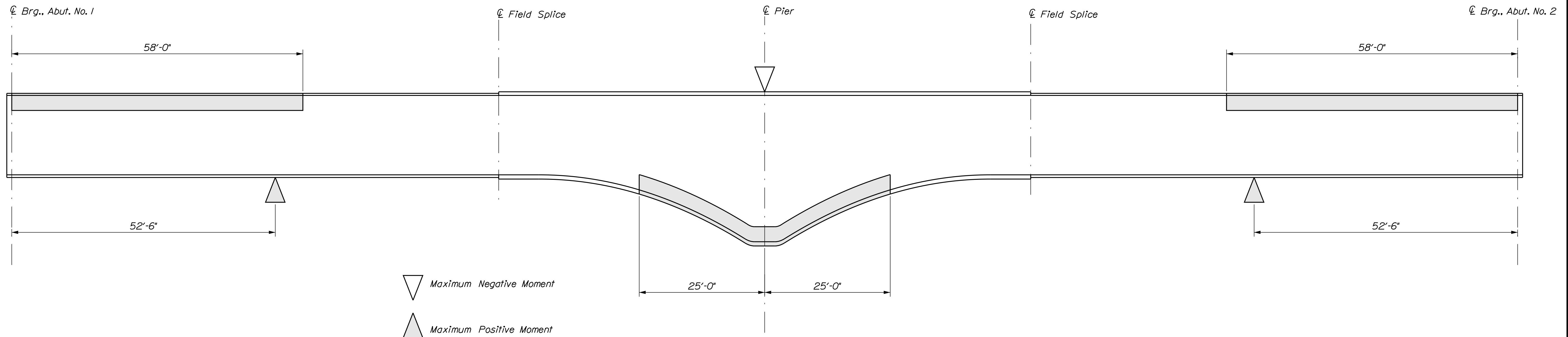
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE		OVER INTERSTATE - 95		OAKLAND & WATERVILLE KENNEBEC COUNTY	
CAMBER DETAILS		SHEET NUMBER		45	
BRIDGE NO. 6815		WIN		23505.00	
BRIDGE PLANS		DATE		P.E. NUMBER	
BY		DATE		SIGNATURE	
D. Eaton		OCT 2022		J. LeVitt	
E. Brewer		M.R.P.		NOV 2022	
DESIGN-Detailed		DESIGN-Reviewed		DESIGN-Detailed	
DESIGN-Detailed		DESIGN-Reviewed		DESIGN-Detailed	
REVISIONS 1		REVISIONS 2		REVISIONS 3	
REVISIONS 4		REVISIONS 5		REVISIONS 6	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \MSTA\046\_Stresses\_BOS-Elev.dgn



**GIRDER STRESS DIAGRAM**  
 Shaded Areas Are Always In Compression.  
 Other Areas Are In Tension Or Have Stress Reversal.

Bottom Of Slab Elevations																
Girder	AI	Span No. 1														Pier
	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
1	278.47	278.68	278.87	279.04	279.18	279.28	279.34	279.36	279.34	279.29	279.22	279.14	279.04	278.94	278.85	278.74
2	278.60	278.82	279.03	279.22	279.37	279.47	279.54	279.56	279.54	279.48	279.41	279.32	279.22	279.11	279.02	278.92
3	278.73	278.95	279.16	279.35	279.50	279.61	279.68	279.70	279.68	279.64	279.56	279.47	279.38	279.28	279.18	279.09
4	278.56	278.78	278.99	279.18	279.33	279.45	279.51	279.54	279.53	279.48	279.41	279.33	279.23	279.14	279.05	278.96
5	278.38	278.59	278.78	278.96	279.11	279.22	279.30	279.33	279.33	279.29	279.23	279.16	279.08	279.00	278.91	278.82

Girder	Pier	Span No. 2														A2
	150'	160'	170'	180'	190'	200'	210'	220'	230'	240'	250'	260'	270'	280'	290'	300'
1	278.74	278.64	278.54	278.43	278.32	278.20	278.07	277.91	277.72	277.50	277.24	276.93	276.59	276.21	275.80	275.37
2	278.92	278.82	278.72	278.62	278.53	278.42	278.30	278.15	277.97	277.76	277.50	277.19	276.85	276.46	276.04	275.59
3	279.09	278.99	278.90	278.80	278.71	278.61	278.49	278.35	278.17	277.96	277.70	277.40	277.06	276.67	276.26	275.81
4	278.96	278.86	278.77	278.68	278.59	278.49	278.38	278.24	278.07	277.86	277.60	277.31	276.97	276.59	276.17	275.73
5	278.82	278.73	278.64	278.55	278.45	278.35	278.23	278.08	277.91	277.70	277.45	277.16	276.83	276.47	276.07	275.65

Table Of Deflections - Interior Girders (Inches)																
	AI	Span No. 1														Pier
	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
Steel Dead Load	0.00	-0.35	-0.66	-0.93	-1.12	-1.22	-1.25	-1.19	-1.06	-0.87	-0.66	-0.44	-0.26	-0.11	-0.03	0.00
Fluid Dead Load	0.00	-1.13	-2.15	-2.99	-3.60	-3.93	-3.98	-3.77	-3.33	-2.72	-2.03	-1.36	-0.77	-0.33	-0.08	0.00
Superimposed Dead Load	0.00	-0.09	-0.17	-0.23	-0.28	-0.31	-0.31	-0.30	-0.27	-0.22	-0.17	-0.11	-0.07	-0.03	-0.01	0.00

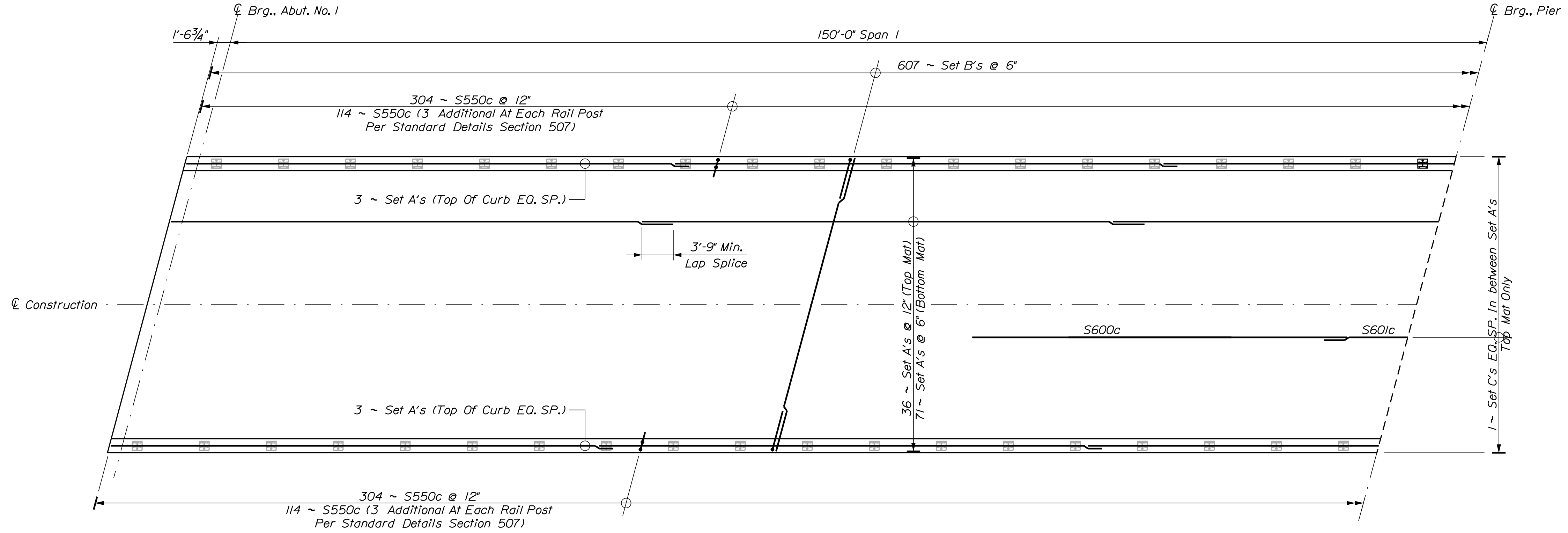
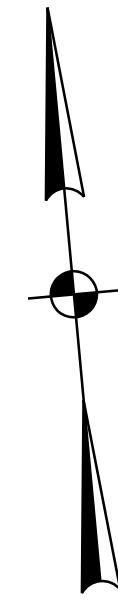
	Pier	Span No. 2														A2
	150'	160'	170'	180'	190'	200'	210'	220'	230'	240'	250'	260'	270'	280'	290'	300'
Steel Dead Load	0.00	-0.03	-0.11	-0.26	-0.45	-0.66	-0.87	-1.06	-1.19	-1.25	-1.22	-1.12	-0.93	-0.66	-0.35	0.00
Fluid Dead Load	0.00	-0.08	-0.34	-0.77	-1.36	-2.03	-2.72	-3.33	-3.77	-3.98	-3.93	-3.60	-3.00	-2.15	-1.13	0.00
Superimposed Dead Load	0.00	-0.01	-0.03	-0.07	-0.11	-0.17	-0.22	-0.27	-0.30	-0.31	-0.31	-0.28	-0.23	-0.17	-0.09	0.00

Table Of Deflections - Exterior Girders (Inches)																
	AI	Span No. 1														Pier
	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
Steel Dead Load	0.00	-0.35	-0.66	-0.93	-1.12	-1.22	-1.25	-1.19	-1.06	-0.87	-0.66	-0.44	-0.26	-0.11	-0.03	0.00
Fluid Dead Load	0.00	-0.93	-1.78	-2.48	-2.98	-3.26	-3.30	-3.13	-2.76	-2.26	-1.69	-1.13	-0.64	-0.28	-0.07	0.00
Superimposed Dead Load	0.00	-0.09	-0.17	-0.24	-0.29	-0.32	-0.33	-0.31	-0.28	-0.23	-0.18	-0.12	-0.07	-0.03	-0.01	0.00

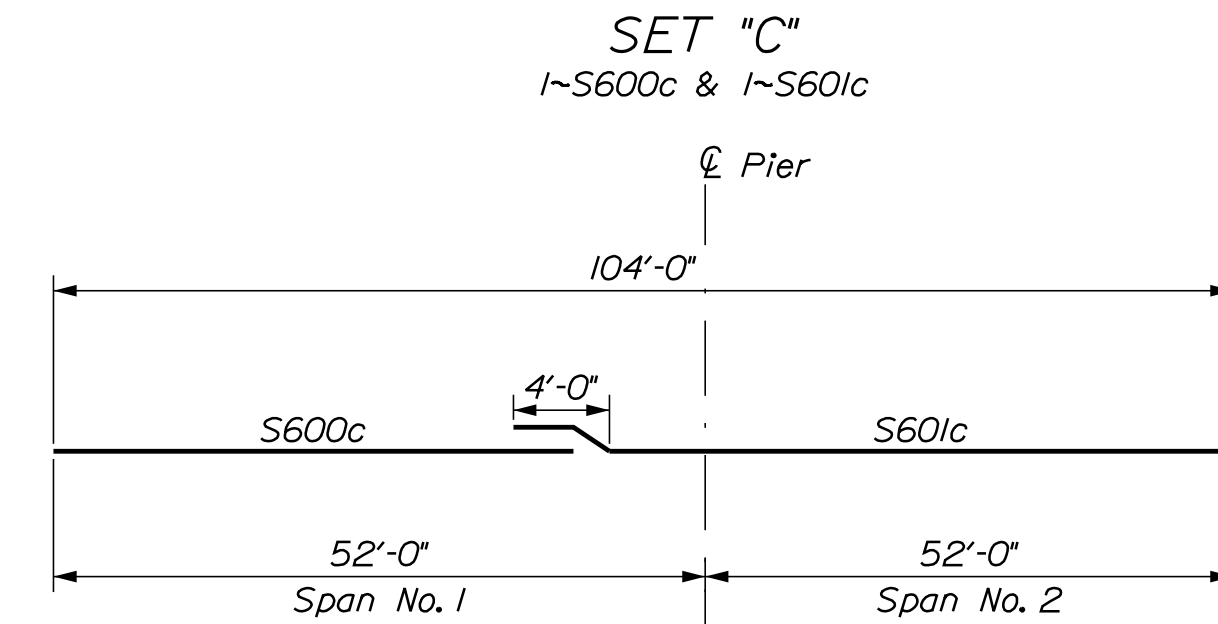
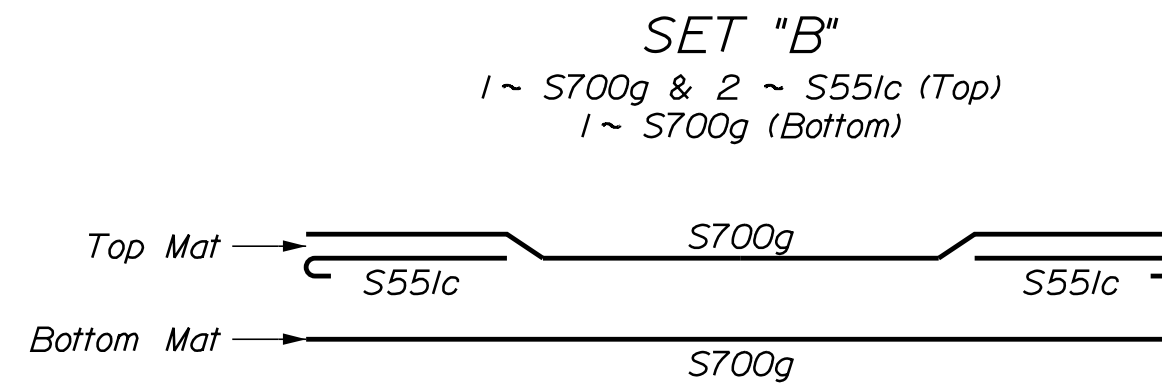
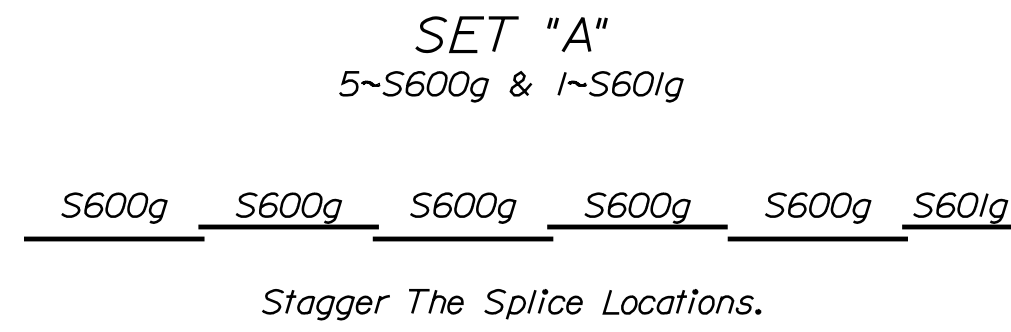
	Pier	Span No. 2														A2
	150'	160'	170'	180'	190'	200'	210'	220'	230'	240'	250'	260'	270'	280'	290'	300'
Steel Dead Load	0.00	-0.03	-0.11	-0.26	-0.44	-0.66	-0.87	-1.06	-1.19	-1.25	-1.22	-1.12	-0.93	-0.66	-0.35	0.00
Fluid Dead Load	0.00	-0.07	-0.28	-0.64	-1.13	-1.69	-2.26	-2.76	-3.13	-3.30	-3.26	-2.98	-2.48	-1.78	-0.93	0.00
Superimposed Dead Load	0.00	-0.01	-0.03	-0.07	-0.12	-0.18	-0.23	-0.28	-0.31	-0.33	-0.32	-0.29	-0.24	-0.17	-0.09	0.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION <b>2350500</b> WIN 23505.00 BRIDGE NO. 6815 BRIDGE PLANS	DATE OCT 2022 NOV 2022	BY M.R.P. J. LeVil	D. Eaton E. Brewer D. Taylor	DESIGN-DETAILED CHECKED-REVIEWED DESIGNS-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE
ARMSTRONG ROAD BRIDGE OVER INTERSTATE - 95 OAKLAND & WATERVILLE KENNEBEC COUNTY <b>GIRDER STRESSES &amp; BOTTOM OF SLAB ELEVATIONS</b>					
SHEET NUMBER <h1 style="margin: 0;">46</h1> OF 53					



**SUPERSTRUCTURE PLAN - SPAN NO. 1**  
 (Span No. 2 Is Similar)  
 Transverse Bars are to be placed parallel to skew

g = Glass Fiber Reinforced Polymer.  
 c = High Strength, Low Carbon, Chromium.



**NOTE**  
 The Extra Bars Over The Pier Will  
 Need To Be Runs Of Multiple Bars.  
 Stagger Laps And Termination If  
 Possible. Lap Splice = 4'-0" For  
 These Low Carbon Chromium Bars.

DESIGNED	DATE
CHECKED	OCT 2022
REVIEWED	NOV 2022
DESIGNED	SIGNATURE
REVISIONS 1	P.E. NUMBER
REVISIONS 2	DATE
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

PROJ. MANAGER	D. Eaton
DESIGN DETAILED	E. Brewer
CHECKED/REVIEWED	D. Taylor
DESIGNED	J. LeVitt
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

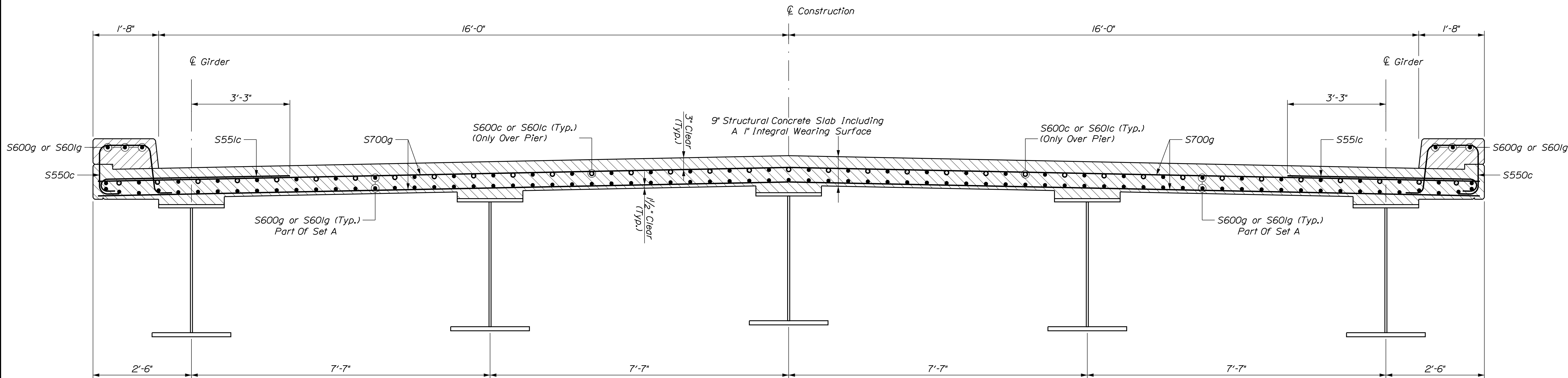
ARMSTRONG ROAD BRIDGE  
 OVER INTERSTATE - 95  
 OAKLAND & WATERVILLE KENNEBEC COUNTY  
**SUPERSTRUCTURE PLAN**

Date: 12/18/2022

Username: devan.c.eaton

Division: BRIDGE

Filename: ... \048\_Superstructure\_Section.dgn



**SUPERSTRUCTURE SECTION**

**SUPERSTRUCTURE NOTES**

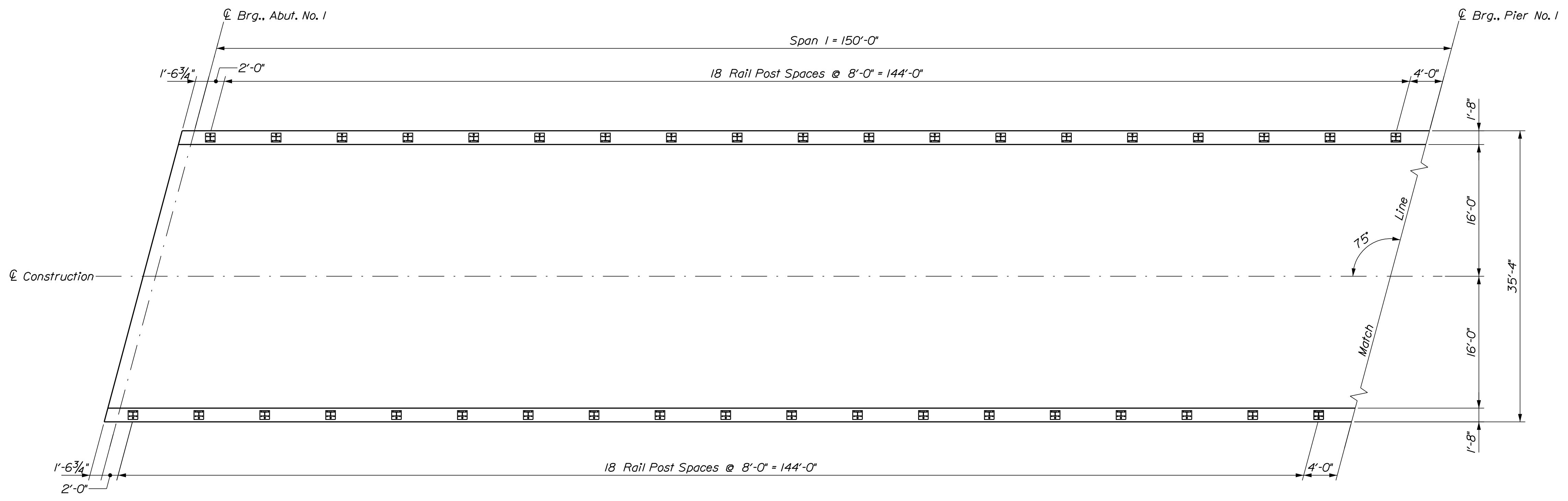
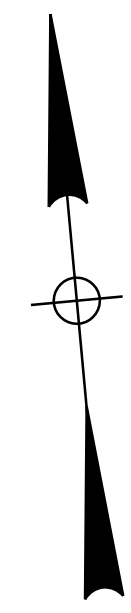
1. The theoretical blocking used for design of the structure is 4.5 inches at the centerline of bearing of the abutments and piers. Refer to Standard Detail 502(03) for blocking details.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. The use of Precast Concrete Deck Panels will not be allowed on this project.
4. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
5. The superstructure slab concrete shall be placed in two continuous operations. The initial placement shall begin at the abutment chosen by the contractor and terminate at the end of the positive moment section. The final placement shall be between the designated slab construction joint and the other abutment. Concrete in each placement shall be kept plastic until the entire placement has been completed. A minimum of 5 days shall elapse between successive partial placements. The superstructure slab concrete placement sequence shall be approved by the Resident.
6. Concrete shall be placed starting at the low end of each placement sequence.
7. Anchor rods for the steel bridge rail posts shall be shortened by 1 inch to provide additional clearance between the top of the deck and bottom of the anchor rod.
8. The Saw Cut Grooving shall be in the longitudinal direction.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
2350500  
WIN  
23505.00  
BRIDGE NO. 6815  
BRIDGE PLANS

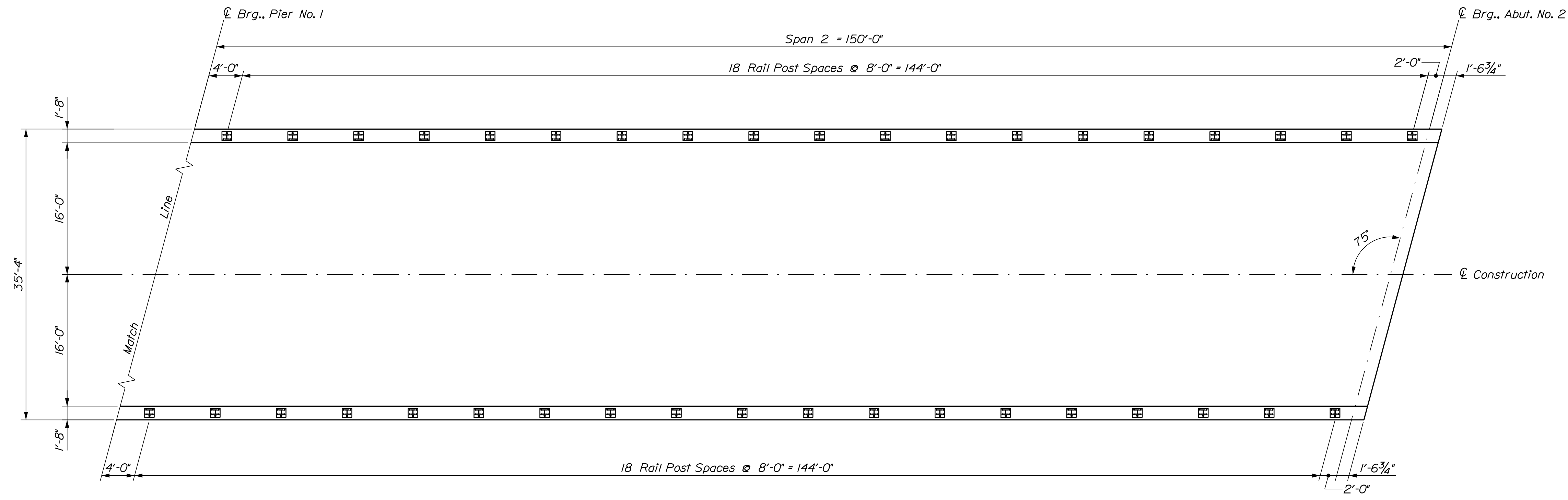
PROJ. MANAGER	D. Eaton	BY	J. LeVill	DATE	NOV 2022
DESIGN-DETAILED	E. Brewer	M.A.P.	J. LeVill	DATE	OCT 2022
CHECKED-REVIEWED	D. Taylor			SIGNATURE	
DESIGN-DETAILED				P.E. NUMBER	
REVISIONS 1				DATE	
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

ARMSTRONG ROAD BRIDGE  
OVER INTERSTATE - 95  
OAKLAND & WATERVILLE KENNEBEC COUNTY  
**SUPERSTRUCTURE SECTION**

SHEET NUMBER  
**48**  
OF 53



RAIL LAYOUT PLAN  
SPAN NO. 1



RAIL LAYOUT PLAN  
SPAN NO. 2

STATE OF MAINE	BRIDGE NO. 6815	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	WIN	23505.00
	2350500	

PROJ. MANAGER	D. Eaton	BY	D. Eaton	DATE	
DESIGN DETAILED	E. Brewer	M.A.P.	J. LeVitch	OCT 2022	
CHECKED/REVIEWED	D. Taylor			NOV 2022	SIGNATURE
DESIGN DETAILED					P.E. NUMBER
REVISIONS 1					DATE
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

ARMSTRONG ROAD BRIDGE	
OVER INTERSTATE - 95	
OAKLAND & WATERVILLE KENNEBEC COUNTY	
BRIDGE RAIL LAYOUT	

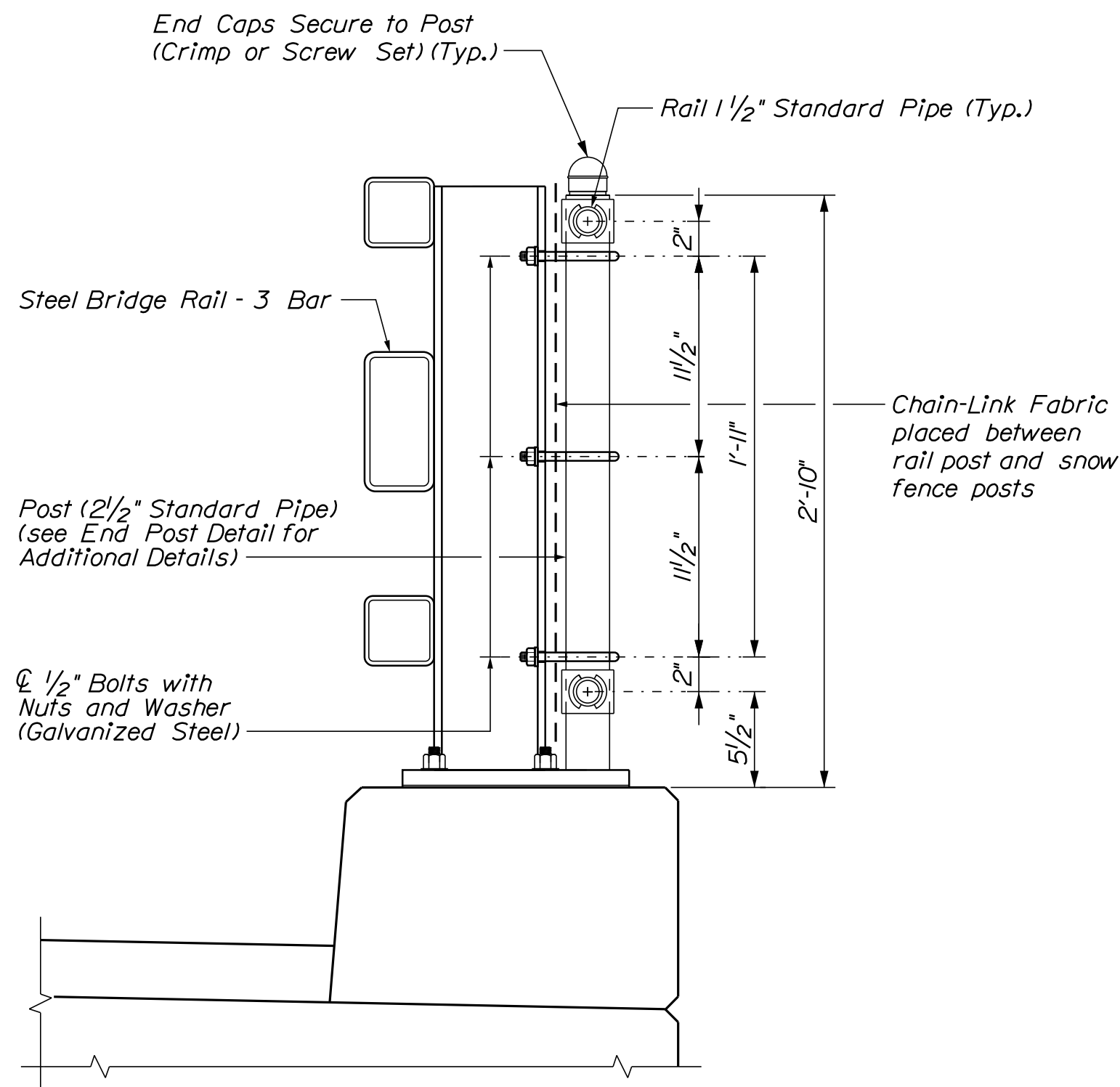
SHEET NUMBER	49
OF 53	

Date: 12/18/2022

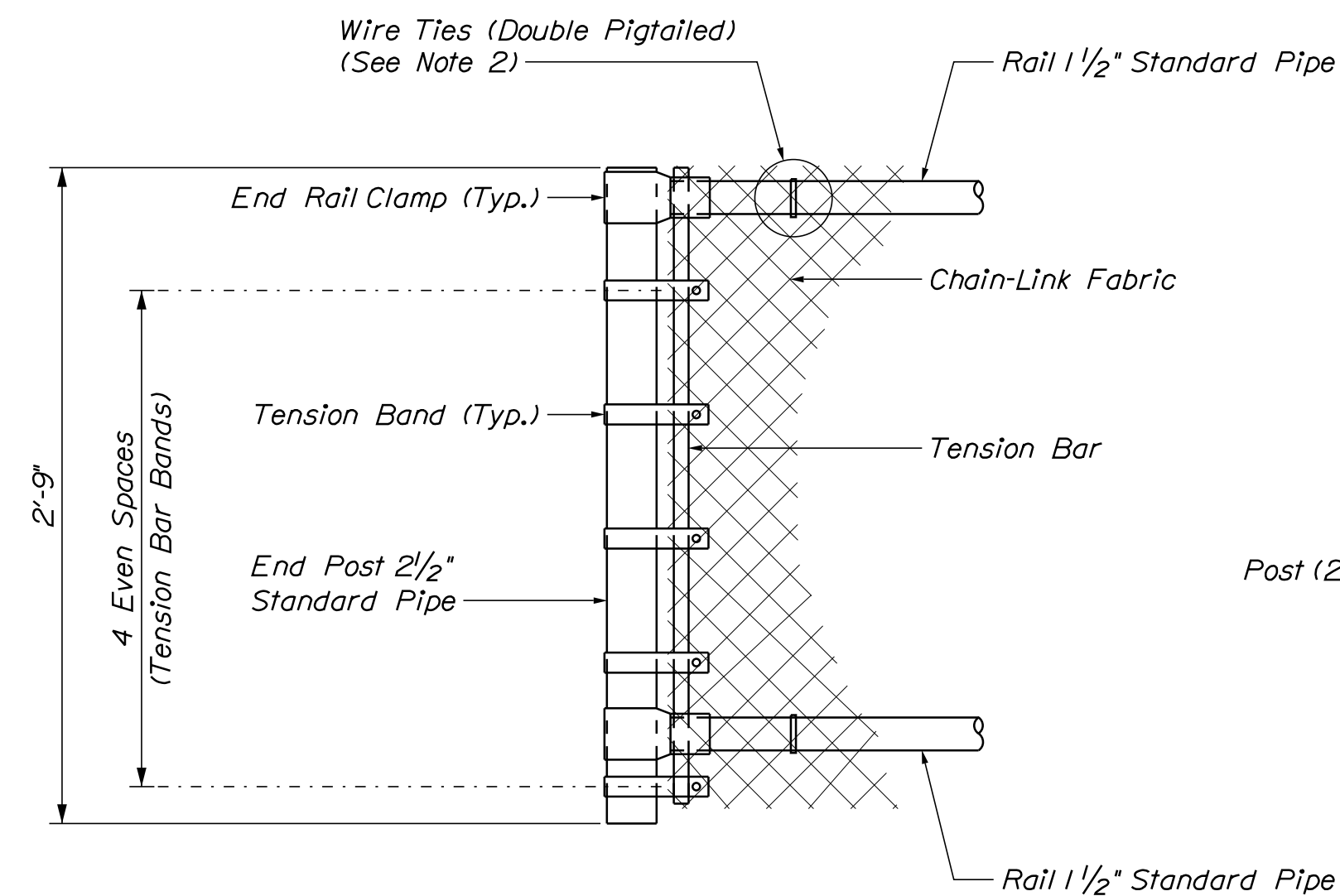
Username: devan.c.eaton

Division: BRIDGE

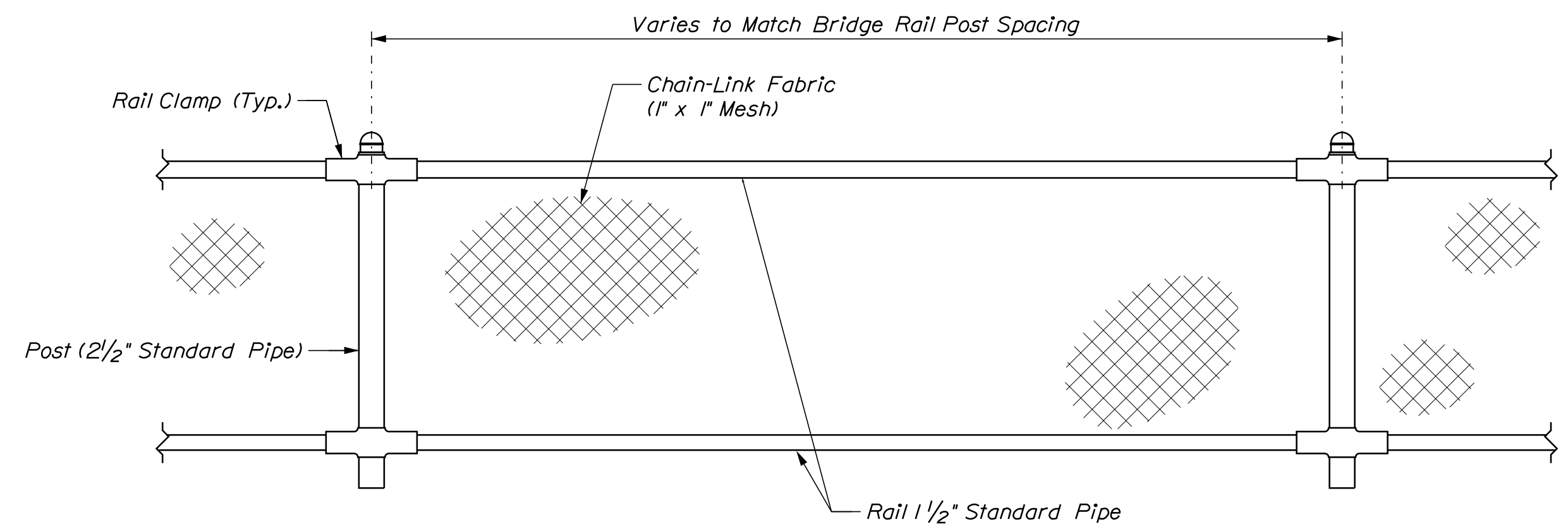
Filename: ... \050\_Snow\_Fence\_Details.dgn



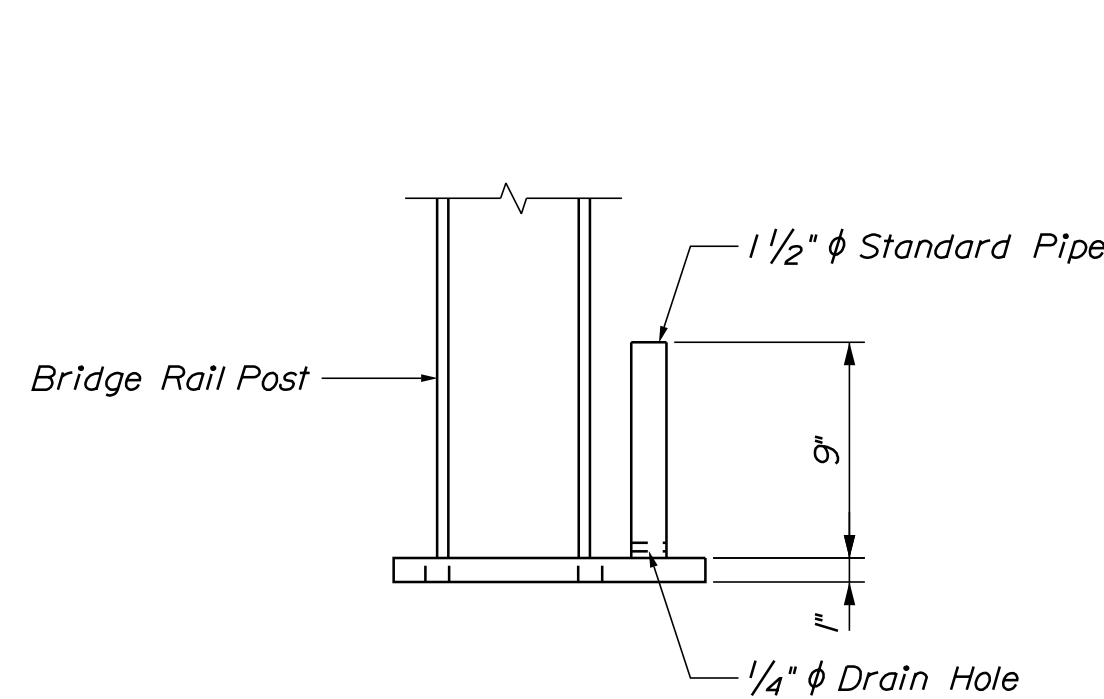
SNOW FENCE CONNECTION DETAIL



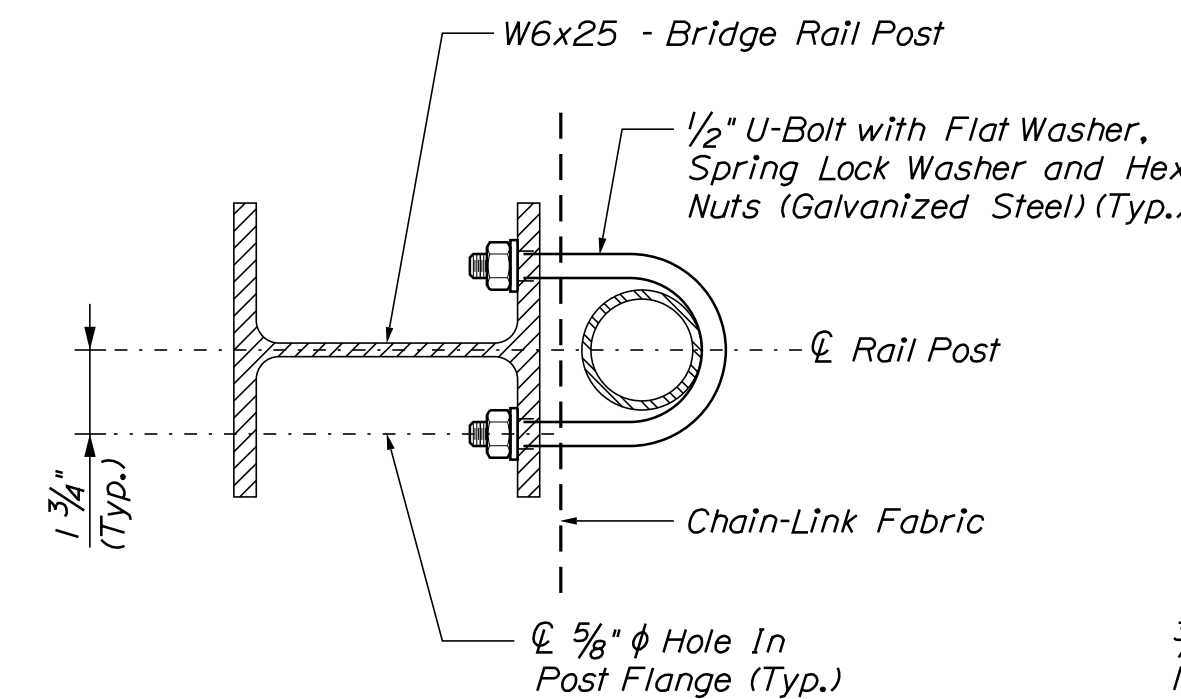
END POST DETAIL



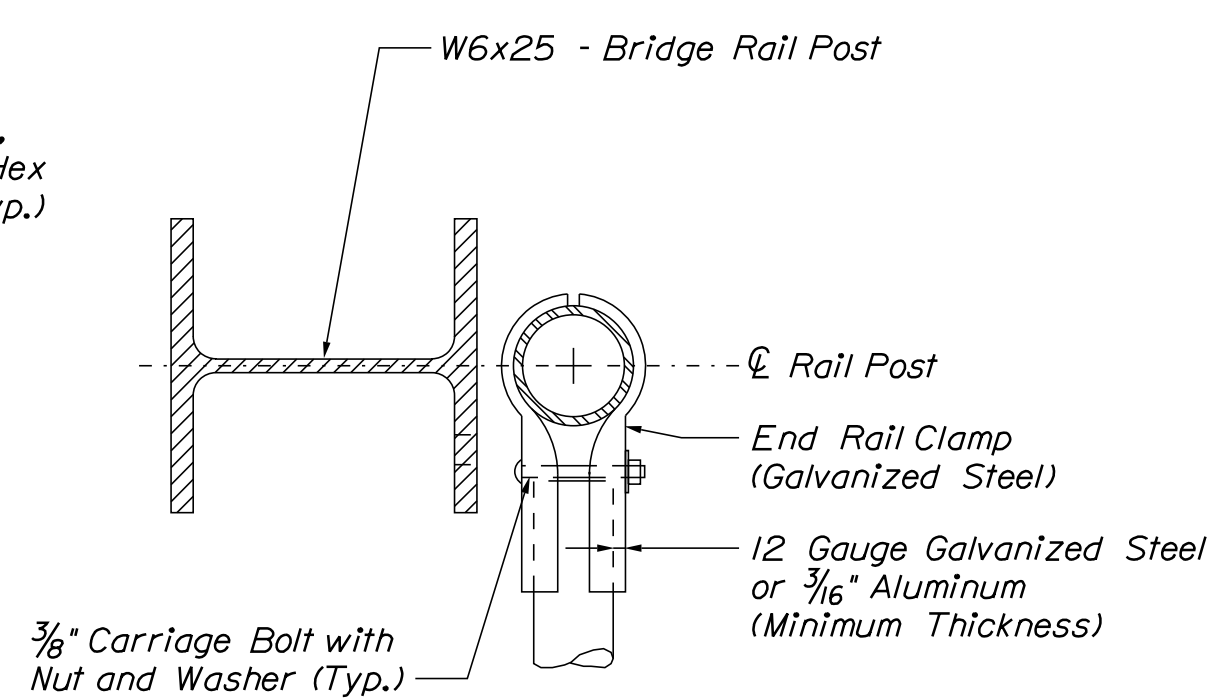
ELEVATION - SNOW FENCE



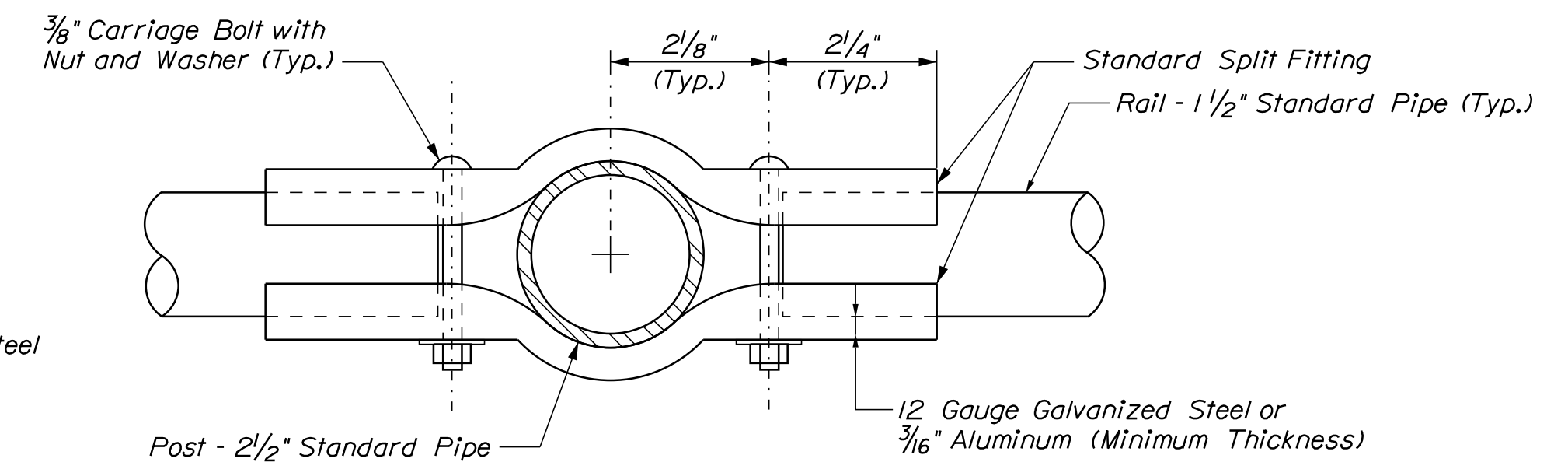
MODIFIED BASE PLATE ELEVATION



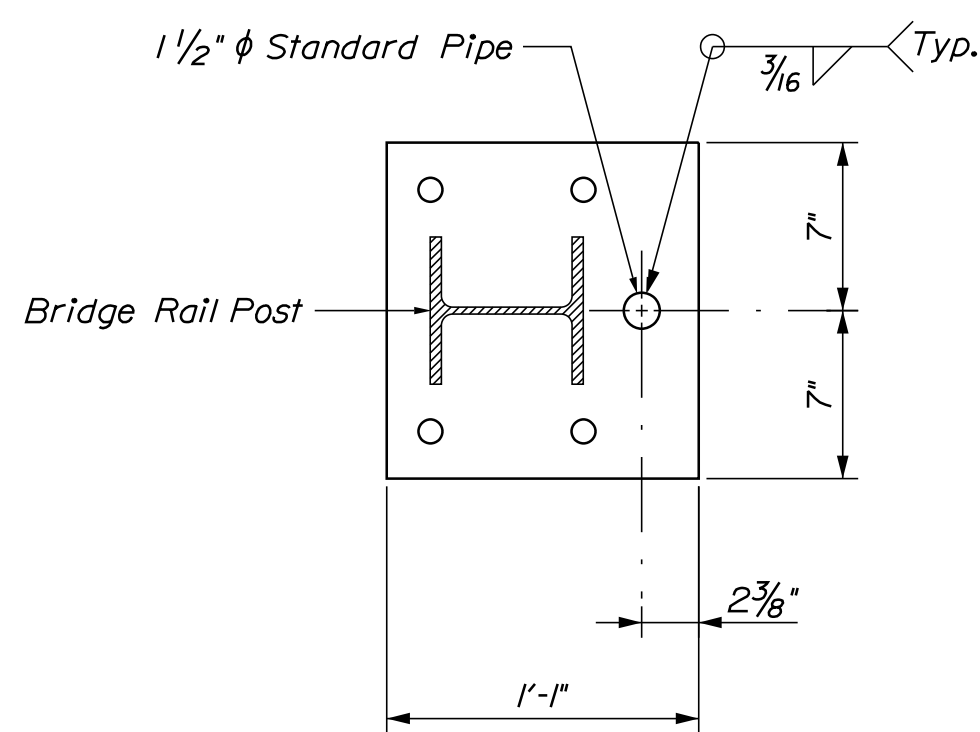
U-BOLT CONNECTION DETAIL  
(At Interior Post)



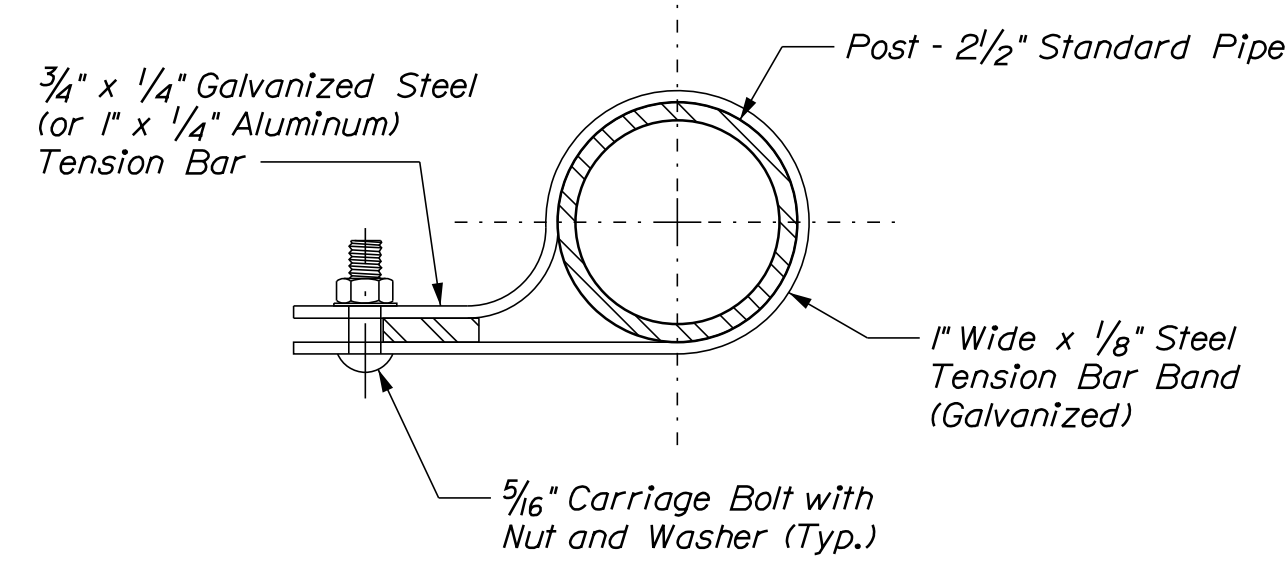
END POST DETAIL  
(U-Bolt Not Shown)



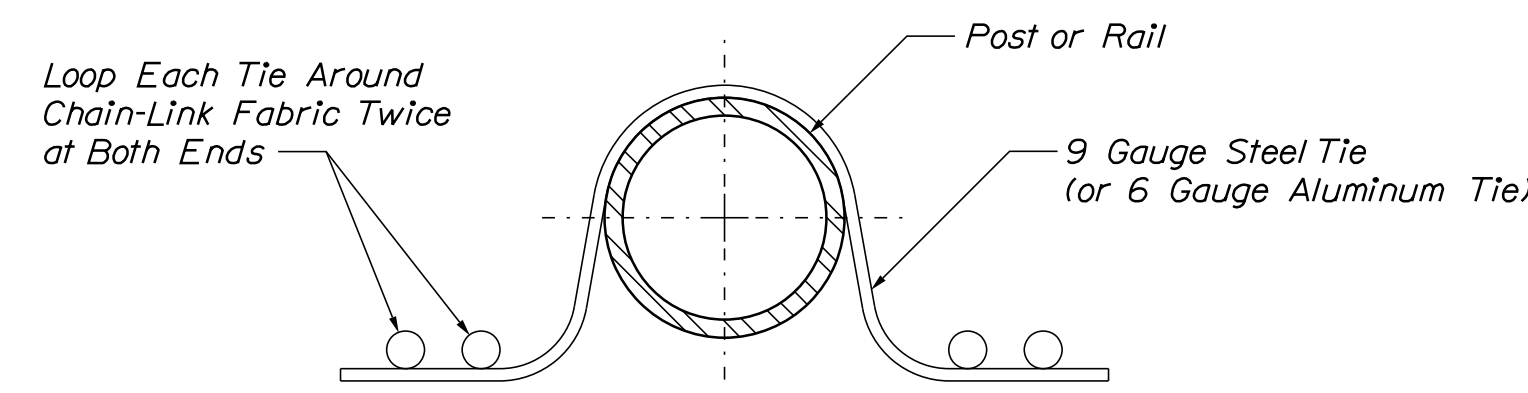
RAIL CLAMP DETAIL



MODIFIED BASE PLATE DETAIL



TENSION BAND DETAIL



DOUBLE PIGTAILED TIE

**SNOW FENCE NOTES**

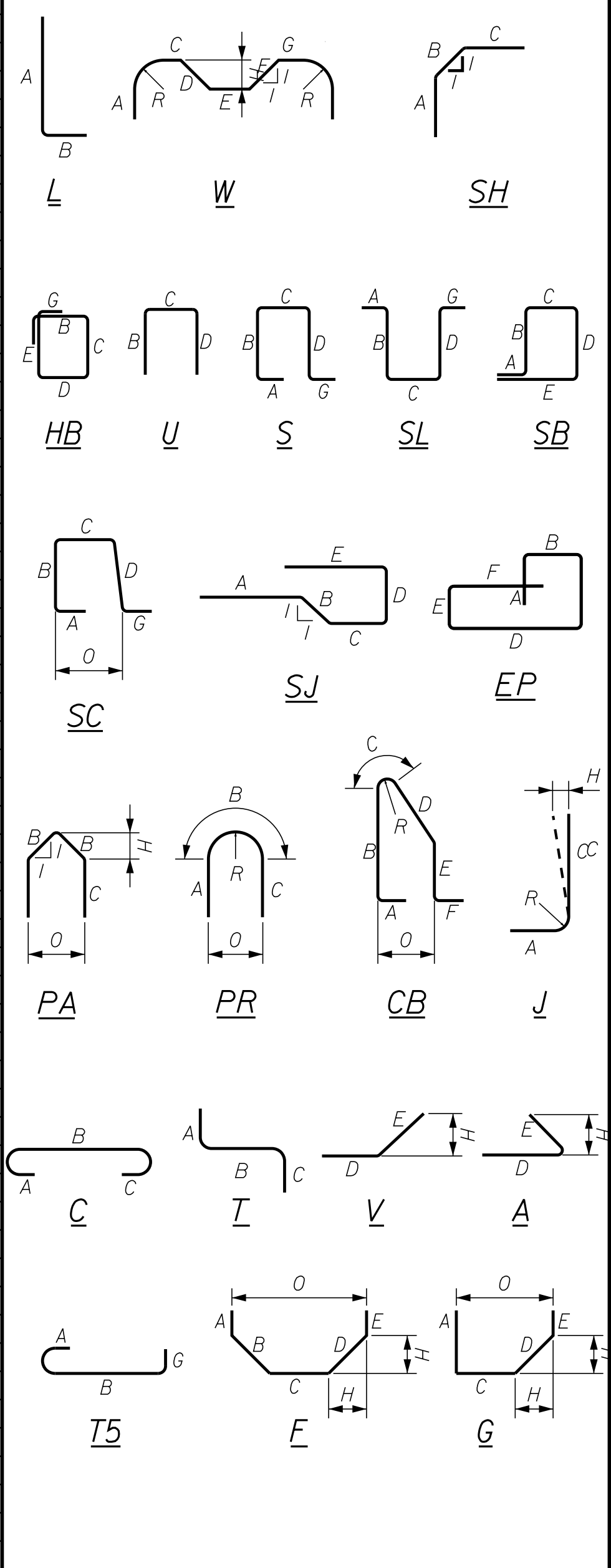
1. Chain-Link fence shall conform to Section 710.03 and Special Provision Section 607. The size of wire mesh (fabric) shall be 1".
2. Post and rail pipe shall be hot-dip galvanized. All pipe shall be schedule 40, standard weight. Nominal pipe sizes are shown.
3. Tension bars, bar bands, boulevard and end rail clamps shall be steel or aluminum alloy conforming to AASHTO M181 (ASTM F626). Steel components shall be hot-dip galvanized in accordance with AASHTO M181 (ASTM A123) or AASHTO M232 (ASTM A153) as applicable.
4. All bolts and nuts shall be steel conforming to ASTM A307 and ASTM A563 grade A respectively. Washers shall be hardened steel commercial type A plain and shall meet the dimensional requirements of ANSI B18.22. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M181 (ASTM A123) or AASHTO M232 (ASTM A153) as applicable.
5. Rail may be field cut (sawn) to fit post spacing.

PROJ. MANAGER	DATE	BY	DATE
DESIGN DETAILED	OCT 2022	E. Brewer	
CHECKED/REVIEWED	NOV 2022	D. Taylor	
DESIGN DETAILED		J. LeVitt	
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Filename: ... \MSTA051\_Rebar\_Schedule.dgn  
 Division: BRIDGE  
 Username: devon.c.eaton  
 Date: 12/8/2022

STRAIGHT BARS				BENT BARS																			
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
APPROACH SLAB																							
AS500c	32	3'-7"	Approach Slab																				
AS600c	124	15'-1 3/4"	Approach Slab																				
SUPERSTRUCTURE				SUPERSTRUCTURE																			
S600c	35	48'-0"	Along Deck Over Pier	S550c	836	5'-6"	SC	10"	1'-3 1/4"	1'-3"	1'-3 1/4"							10"			1'-4 1/2"	Top Of Curb	
S601c	35	60'-0"	Along Deck Over Pier	S551c	1214	6'-2"	C		5'-7"	7"												Curb & Fascia	
S600g	565	60'-0"	Deck & Curb																				
S601g	113	21'-6"	Deck & Curb																				
S700g	1,214	36'-3"	Transverse Deck Slab																				
ABUTMENT NO. 1				ABUTMENT NO. 2				ABUTMENT NO. 1															
A501c	36	5'-6"	Abutment - Sets C, D, G	B501c	36	5'-6"	Abutment - Sets C, D, G	A552c	16	4'-8"	U		1'-0"	2'-8"	1'-0"							Abutment - Sets E, F	
A502c	8	5'-6"	Abutment - Set E	B502c	8	5'-10"	Abutment - Set E	A553c	36	7'-6"	L	3'-9"	3'-9"									Abutment / End Superstructure	
A503c	8	6'-7"	Abutment - Set F	B503c	8	7'-4"	Abutment - Set F	A554c	32	6'-8"	SH	2'-6"	1'-8"	2'-6"								Abutment - Set G / End Superstr.	
A504c	2	7'-0"	End Wingwall	B504c	2	7'-0"	End Wingwall	A555c	1	7'-8"	V				7'-6"	2"				1"		Top of Wing F.F.	
A505c	1	36'-7"	Abutment - N.F. Below Girders	B505c	1	36'-7"	Abutment - N.F. Below Girders	A556c	1	8'-0"	V				7'-6"	6"				2 1/2"		Top of Wing Middle	
A506c	5	25'-10"	Abutment - F.F.	B506c	5	25'-10"	Abutment - F.F.	A557c	1	8'-4"	V				7'-6"	10"				4 1/2"		Top of Wing N.F.	
A507c	18	16'-0"	Wingwall - F.F.	B507c	18	16'-0"	Wingwall - F.F.	A558c	1	7'-11"	V				7'-9"	2"				1"		Top of Wing F.F.	
A508c	15	5'-4"	Abutment - Set H	B508c	15	5'-4"	Abutment - Set H	A559c	1	8'-3"	V				7'-9"	6"				2 1/2"		Top of Wing Middle	
A509c	12	7'-4"	Abutment - Set H	B509c	12	7'-4"	Abutment - Set H	A560c	1	8'-7"	V				7'-9"	10"				4 1/2"		Top of Wing N.F.	
A510c	2	10'-3"	Wingwall - N.F.	B510c	2	10'-3"	Wingwall - N.F.	A561c	4	4'-6 1/2"	U		1'-0"	2'-6 1/2"	1'-0"							End of Wing	
A511c	1	9'-11"	Wingwall - N.F.	B511c	1	9'-0"	Wingwall - N.F.																
A512c	1	7'-8"	Wingwall - N.F.	B512c	1	7'-0"	Wingwall - N.F.	A750c	36	10'-11"	L	9'-9"	1'-2"									Abutment - Sets C, D, G	
A513c	1	9'-8"	Wingwall - N.F.	B513c	1	9'-0"	Wingwall - N.F.	A751c	8	8'-7"	L	8'-9"	1'-2"									Abutment - Set E (Cut to fit)	
A514c	2	9'-6"	Wingwall - N.F.	B514c	2	9'-6"	Wingwall - N.F.	A752c	8	10'-4"	L	10'-3"	1'-2"									Abutment - Set F (Cut to fit)	
A515c	1	8'-4"	Wingwall - N.F.	B515c	1	9'-3"	Wingwall - N.F.																
A516c	1	6'-5"	Wingwall - N.F.	B516c	1	7'-2"	Wingwall - N.F.	A550	10	5'-0 1/2"	U		1'-0"	3'-0 1/2"	1'-0"							Abutment - Set B	
A517c	1	8'-3"	Wingwall - N.F.	B517c	1	7'-9"	Wingwall - N.F.																
A500	31	3'-9"	Abutment F.F. Vertical Dowel	B500	31	3'-9"	Abutment F.F. Vertical Dowel	A650	99	10'-10"	U		3'-10"	3'-2"	3'-10"							Abutment - Sets C, D, E, F, G	
A602	24	27'-6"	Abutment - Sets A, B	B602	24	27'-6"	Abutment - Sets A, B	A651	8	8'-0"	U		1'-0"	6'-0"	1'-0"							Bottom of Abutment	
A603	10	4'-1"	Abutment - Set D	B603	10	4'-1"	Abutment - Set D	A652	4	11'-3"	U		1'-0"	9'-3"	1'-0"							Bottom of Wingwall	
A801	28	15'-8"	Abutment - Set A	B801	28	15'-8"	Abutment - Set A	ABUTMENT NO. 2															
								B552c	16	4'-8"	U		1'-0"	2'-8"	1'-0"								Abutment - Sets E, F
								B553c	36	7'-6"	L	3'-9"	3'-9"										Abutment / End Superstructure
								B554c	32	6'-8"	SH	2'-6"	1'-8"	2'-6"									Abutment - Set G / End Superstr.
								B555c	1	7'-8"	V				7'-6"	2"				1"			Top of Wing F.F.
								B556c	1	8'-0"	V				7'-6"	6"				2 1/2"			Top of Wing Middle
								B557c	1	8'-4"	V				7'-6"	10"				4 1/2"			Top of Wing N.F.
								B558c	1	7'-8"	V				7'-9"	2"				1"			Top of Wing F.F.
								B559c	1	8'-0"	V				7'-9"	6"				2 1/2"			Top of Wing Middle
								B560c	1	8'-4"	V				7'-9"	10"				4 1/2"			Top of Wing N.F.
								B561c	4	4'-6 1/2"	U		1'-0"	2'-6 1/2"	1'-0"								End of Wing
								B750c	36	10'-11"	L	9'-9"	1'-2"										Abutment - Sets C, D, G
								B751c	8	8'-2"	L	8'-9"	1'-2"										Abutment - Set E (Cut to fit)
								B752c	8	10'-0"	L	10'-3"	1'-2"										Abutment - Set F (Cut to fit)
								B550	10	5'-0 1/2"	U		1'-0"	3'-0 1/2"	1'-0"								Abutment - Set B
								B650	99	11'-2"	U		3'-10"	3'-2"	3'-10"								Abutment - Sets C, D, E, F, G
								B651	8	8'-0"	U		1'-0"	6'-0"	1'-0"								Bottom of Abutment
								B652	4	11'-3"	U		1'-0"	9'-3"	1'-0"								Bottom of Wingwall
								PIER															
P601	13	32'-6"	Pier Footing					P650	18	4'-10"	U		1'-0"	2'-10"	1'-0"								Pier Footing
P602	37	8'-6"	Pier Footing					P651	66	5'-0"	U		1'-0"	3'-0"	1'-0"								Pier Footing
P604	6	8'-8"	Pier Footing					P652	6	15'-10"	V				2'-10"	13'-0"				4'-1 1/4"			Pier Stem Side Bars
P605	2	26'-9"	Pier Stem Horizontal					P653	12	20'-6"	L	19'-6"	1'-0"										Pier Stem Horizontal
P606	2	27'-5"	Pier Stem Horizontal					P654	37	4'-8"	U		1'-0"	2'-2"	1'-0"								Pier Stem Vertical
P607	2	28'-1"	Pier Stem Horizontal					P655	32	9'-2"	U		3'-3"	2'-4"	3'-3"								Pier Stem Horizontal
P608	2	28'-9"	Pier Stem Horizontal																				
P609	2	29'-5"	Pier Stem Horizontal																				
P610	2	30'-1"	Pier Stem Horizontal																				
P611	2	30'-9"	Pier Stem Horizontal																				
P612	2	31'-5"	Pier Stem Horizontal																				
P613	2	32'-1"	Pier Stem Horizontal																				
P614	2	32'-9"	Pier Stem Horizontal																				
P615	2	33'-5"	Pier Stem Horizontal																				
P616	2	34'-1"	Pier Stem Horizontal																				
P617	2	34'-9"	Pier Stem Horizontal																				
P618	6	35'-6"	Pier Stem Horizontal																				
P622	4	5'-3"	Pier Stem Vertical																				
P623	4	8'-3"	Pier Stem Vertical																				
P624	4	11'-3"	Pier Stem Vertical																				
P625	4	14'-3"	Pier Stem Vertical																				
P801	33	8'-6"	Pier Footing																				
P802	9	32'-6"	Pier Footing																				
P901	54	15'-6"	Pier Stem Vertical					P951	54	9'-11"	L	8'-4"	1'-7"										Pier Footing

TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.  
 Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Plain Reinforcing Steel: ASTM A615, Grade 60  
 Stainless Steel Reinforcing: ASTM A955, Grade 75  
 Glass Fiber Reinforced Polymer: ASTM D7957  
 Low-Carbon Chromium Steel: ASTM A1035, Type CS Grade 100

GENERAL NOTES

- The first digit(s) following the letter(s) of the mark indicate the size of the bar:  
 Mark "A502" = bar size #5  
 Mark "S650" = bar size #6  
 Mark "P805" = bar size #8  
 Mark "P1404" = bar size #14
- The lower case letter following the bar number indicated the material of the bar.  
 "A500", = (Black) Plain Steel  
 "A550s", s = Stainless Steel  
 "S500g", g = Glass Fiber Reinforced Polymer  
 "P510c", c = Low-carbon Chromium Steel

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
**2350500**  
 WIN  
 23505.00

BRIDGE NO. 6815

---

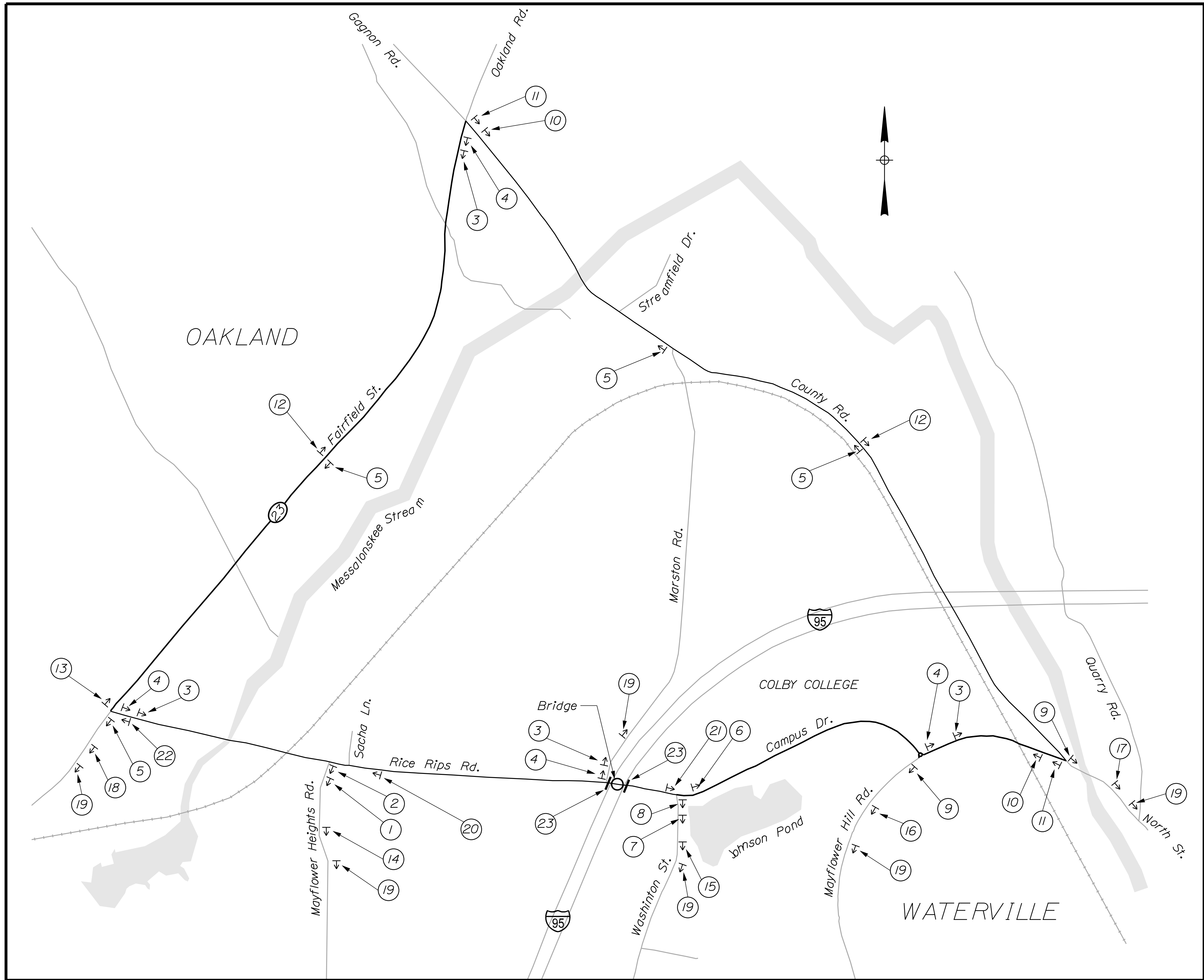
ARMSTRONG ROAD BRIDGE  
 OVER INTERSTATE - 95  
 OAKLAND & WATERVILLE, KENNEBEC COUNTY

**REINFORCING SCHEDULE**

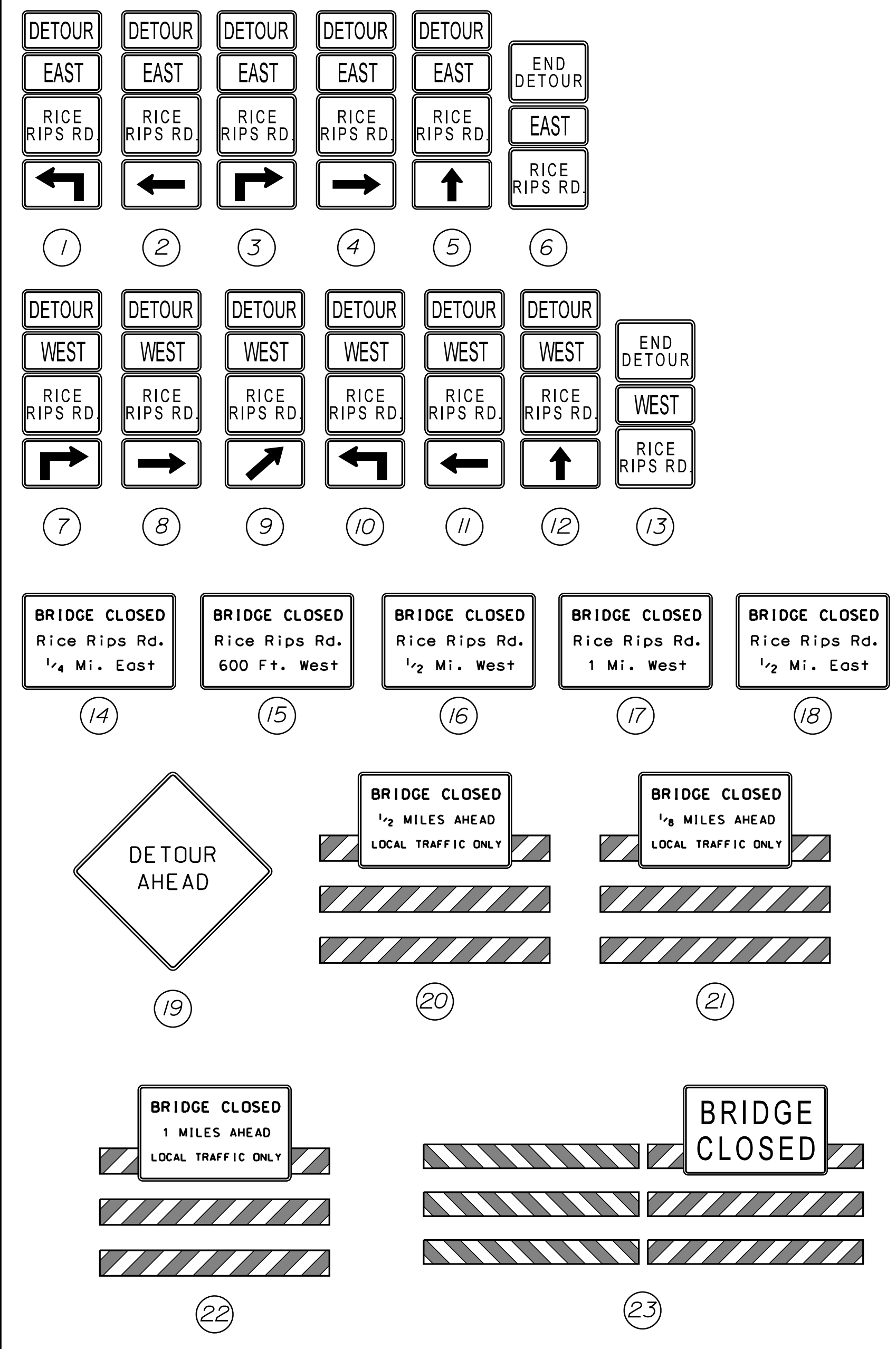
---

SHEET NUMBER  
**51**  
 OF 53

Stantec



NOT TO SCALE



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2350500	
ARMSTRONG ROAD BRIDGE		OAKLAND & WATERVILLE KENNEBEC COUNTY		DETOUR MAP	
OVER INTERSTATE - 95		SHEET NUMBER		52	
OAKLAND & WATERVILLE KENNEBEC COUNTY		OF 53		BRIDGE NO. 6815	
PROJ. MANAGER		D. Eaton		BRIDGE PLANS	
DESIGN-DETAILED		E. Brewer		WIN	
CHECKED-REVIEWED		D. Eaton		23505.00	
DESIGN-DETAILED		J. LeVill		DATE	
DESIGN-DETAILED		SIGNATURE		P.E. NUMBER	
REVISIONS 1		DATE		DATE	
REVISIONS 2		DATE		DATE	
REVISIONS 3		DATE		DATE	
REVISIONS 4		DATE		DATE	
FIELD CHANGES		DATE		DATE	

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

New R/W Along Existing R/W \_\_\_\_\_  
 Building \_\_\_\_\_  
 Trees Conifer \_\_\_\_\_  
 Tree Line \_\_\_\_\_  
 Water Edge \_\_\_\_\_  
 Ledge \_\_\_\_\_  
 Fence CHAIN LINK \_\_\_\_\_  
 Sign \_\_\_\_\_  
 Clearing Limit Line \_\_\_\_\_  
 Bush Line \_\_\_\_\_  
 Rock/Boulder \_\_\_\_\_  
 Flag Pole \_\_\_\_\_  
 BARB WIRE \_\_\_\_\_  
 STOCKADE \_\_\_\_\_  
 WELL \_\_\_\_\_  
 Mailbox \_\_\_\_\_

**PLAN LEGEND**

Existing \_\_\_\_\_ Proposed \_\_\_\_\_

Sanitary Sewer \_\_\_\_\_  
 Telephone Line \_\_\_\_\_  
 Electric Line \_\_\_\_\_  
 Water Line \_\_\_\_\_  
 Underdrain Line \_\_\_\_\_  
 Gas Line \_\_\_\_\_  
 Guardrail \_\_\_\_\_  
 Culvert \_\_\_\_\_

Traveled Way \_\_\_\_\_  
 Ditch \_\_\_\_\_  
 Catch Basin \_\_\_\_\_  
 Manhole \_\_\_\_\_  
 Sewer Manhole \_\_\_\_\_  
 Utility Pole \_\_\_\_\_  
 Fire Hydrant \_\_\_\_\_  
 Curbing \_\_\_\_\_

Existing \_\_\_\_\_ Proposed \_\_\_\_\_

Traveler Way \_\_\_\_\_  
 Ditch \_\_\_\_\_  
 Catch Basin \_\_\_\_\_  
 Manhole \_\_\_\_\_  
 Sewer Manhole \_\_\_\_\_  
 Utility Pole \_\_\_\_\_  
 Fire Hydrant \_\_\_\_\_  
 Curbing \_\_\_\_\_

Cut Line \_\_\_\_\_  
 Stonewall \_\_\_\_\_  
 Baseline \_\_\_\_\_  
 Monument \_\_\_\_\_  
 Iron Rod Found \_\_\_\_\_  
 Replacement Pin Set \_\_\_\_\_

Fill Line \_\_\_\_\_  
 Retaining Wall \_\_\_\_\_  
 10+00 \_\_\_\_\_ 11+00 \_\_\_\_\_ 12+00 \_\_\_\_\_  
 Traverse Point \_\_\_\_\_  
 Pipe Found \_\_\_\_\_

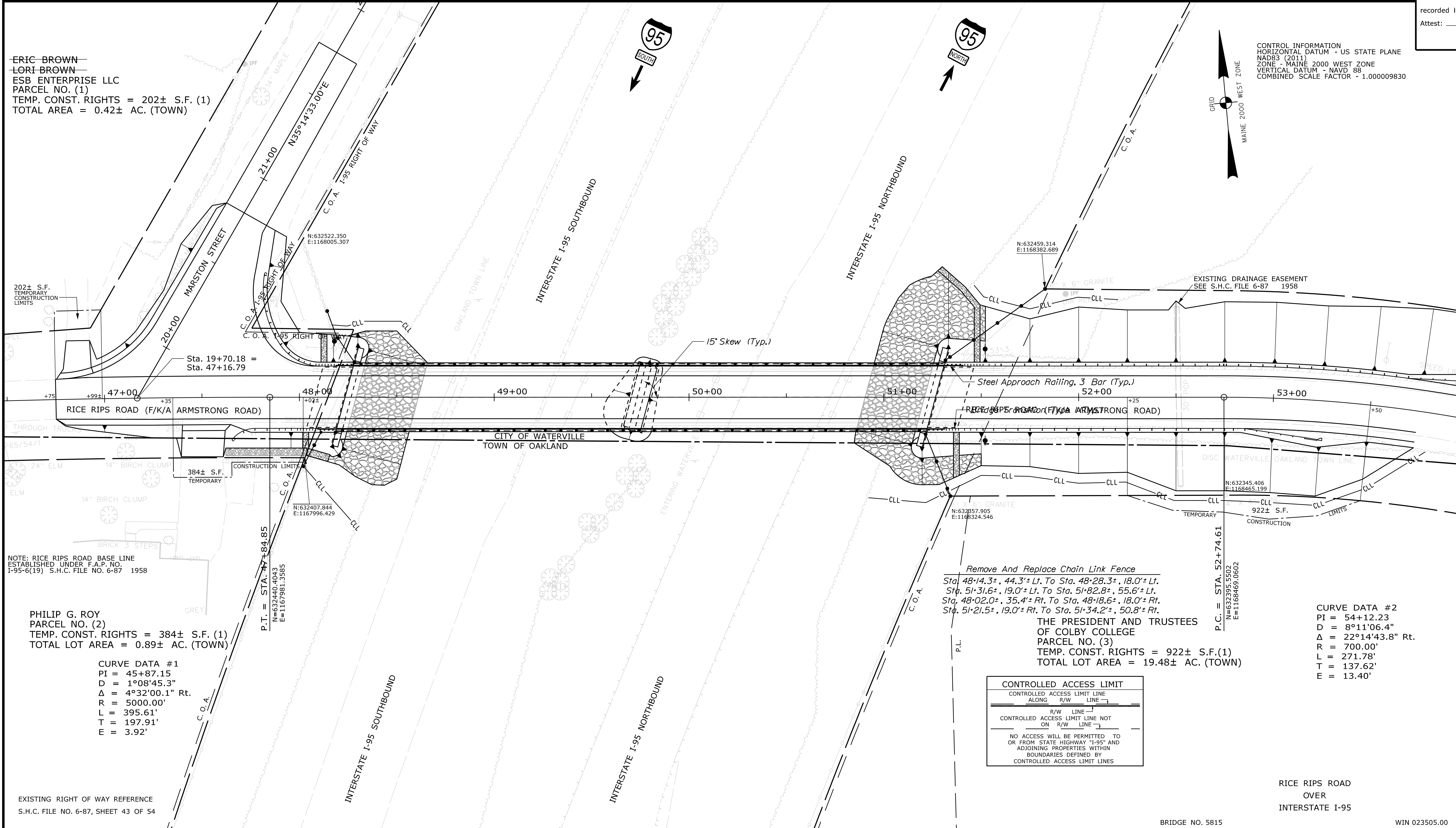
THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ADJUTING PROPERTY OWNERS.

Scale of Feet: 25 0 25 50 75 100

HORIZONTAL DATUM - US STATE PLANE NAD83 (2011)  
 ZONE - MAINE 2000 WEST ZONE  
 VERTICAL DATUM - NAVD 88  
 COMBINED SCALE FACTOR - 1.000009830

STATE OF MAINE  
 REGISTRY OF DEEDS

COUNTY \_\_\_\_\_  
 RECEIVED \_\_\_\_\_  
 at \_\_\_\_\_ h \_\_\_\_\_ m \_\_\_\_\_ M and  
 recorded in Plan Bk \_\_\_\_\_, Pg. \_\_\_\_\_  
 Attest: \_\_\_\_\_ REGISTER



ERIC BROWN  
 LORI BROWN  
 ESB ENTERPRISE LLC  
 PARCEL NO. (1)  
 TEMP. CONST. RIGHTS = 202± S.F. (1)  
 TOTAL AREA = 0.42± AC. (TOWN)

202± S.F. TEMPORARY CONSTRUCTION LIMITS

NOTE: RICE RIPS ROAD BASE LINE ESTABLISHED UNDER F.A.P. NO. I-95-6(19) S.H.C. FILE NO. 6-87 1958

PHILIP G. ROY  
 PARCEL NO. (2)  
 TEMP. CONST. RIGHTS = 384± S.F. (1)  
 TOTAL LOT AREA = 0.89± AC. (TOWN)

**CURVE DATA #1**  
 PI = 45+87.15  
 D = 1°08'45.3"  
 Δ = 4°32'00.1" Rt.  
 R = 5000.00'  
 L = 395.61'  
 T = 197.91'  
 E = 3.92'

EXISTING RIGHT OF WAY REFERENCE  
 S.H.C. FILE NO. 6-87, SHEET 43 OF 54

**Remove And Replace Chain Link Fence**  
 Sta. 48+14.3±, 44.3± Lt. To Sta. 48+28.3±, 18.0± Lt.  
 Sta. 51+31.6±, 19.0± Lt. To Sta. 51+82.8±, 55.6± Lt.  
 Sta. 48+02.0±, 35.4± Rt. To Sta. 48+18.6±, 18.0± Rt.  
 Sta. 51+21.5±, 19.0± Rt. To Sta. 51+34.2±, 50.8± Rt.

**THE PRESIDENT AND TRUSTEES OF COLBY COLLEGE**  
 PARCEL NO. (3)  
 TEMP. CONST. RIGHTS = 922± S.F. (1)  
 TOTAL LOT AREA = 19.48± AC. (TOWN)

**CONTROLLED ACCESS LIMIT**

CONTROLLED ACCESS LIMIT LINE ALONG R/W LINE

CONTROLLED ACCESS LIMIT LINE NOT ON R/W LINE

NO ACCESS WILL BE PERMITTED TO OR FROM STATE HIGHWAY I-95 AND ADJOINING PROPERTIES WITHIN BOUNDARIES DEFINED BY CONTROLLED ACCESS LIMIT LINES

**CURVE DATA #2**  
 PI = 54+12.23  
 D = 8°11'06.4"  
 Δ = 22°14'43.8" Rt.  
 R = 700.00'  
 L = 271.78'  
 T = 137.62'  
 E = 13.40'

ITEM	TECH	CHECKED
EXISTING CONDITION PLAN	JDF	GLL
FINAL RIGHT OF WAY	JDF	SAN
AREAS	JDF	SAN

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

REVISIONS			PLAN FILED IN PLAN BOOK				PAGE COUNTY RECORD				BRUCE A. VAN NOTE	
NO.	DATE	DESCRIPTION	NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	COND.	DATE		BOOK
						11-14-22	14632	24				

BRUCE A. VAN NOTE  
 COMMISSIONER  
 JOYCE NOEL TAYLOR  
 CHIEF ENGINEER

DATE \_\_\_\_\_

RICE RIPS ROAD  
 TOWNWAY  
 OAKLAND - WATERVILLE KENNEBEC COUNTY  
 FEDERAL AID PROJECT NO. 2350500

AUGUST 2022  
 SCALE 1" = 25'

RIGHT-OF-WAY MAP  
 SHEET 1 OF 1

D.O.T. FILE NO. 6-497

SHEET NUMBER  
**53**  
 OF 53

Date: 12/18/2022

Username: devon.c.eaton

Division: BRIDGE

Filename: ... \00\ROW\MSTA001\_RWP\PLANT.dgn

BRIDGE NO. 5815 WIN 023505.00