

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2017) AADT 11370
Future (2037) AADT 13640
DHV - % of AADT 12%
Design Hour Volume 1637
Heavy Trucks (% of AADT) 6%
Heavy Trucks (% of DHV) 4%
Directional Distribution (% of DHV) 58%
18 kip Equivalent P 2.0 521
18 kip Equivalent P 2.5 496
Design Speed (mph) 50

HYDROLOGIC DATA

Headwater Elevation (Q10) 373.53 ft
Headwater Elevation (Q50) 376.53 ft
Headwater Elevation (Q100) 379.53 ft

MATERIALS

Concrete:
Curbs & Transition Barriers Class "LP"
Precast Class "P"
All Other Class "A"
Reinforcing Steel
Plain ASTM A 615/A 615M, Grade 60
Stainless Steel ASTM A 995/A 995M, Grade 75
Structural Steel:
H-Piles ASTM A 572/A572M, Grade 50

BASIC DESIGN STRESSES

Concrete, Class "A" f 'c = 4,000 psi
Concrete, Class "LP" f 'c = 5,000 psi
Concrete, Class "P" f 'c = 8,000 psi
..... f 'ci = 6,000 psi
Reinforcing Steel:
ASTM A615, Grade 60 f y = 60,000 psi
ASTM A995, Grade 75 f y = 75,000 psi
Structural Steel:
ASTM A 572, Grade 50 F y = 50,000 psi

UTILITIES

FairPoint Communications Oxford Networks
Central Maine Power Time Warner Cable

MAINTENANCE OF TRAFFIC

Maintain one lane of alternating one-way traffic on the bridge during staged construction. Traffic will be controlled by temporary traffic signals.

LIST OF DRAWINGS

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FRYEBURG
OXFORD COUNTY
SHORTRIDGE BRIDGE
OVER
SACO RIVER OVERFLOW
U.S. ROUTE 302
FEDERAL AID PROJECT NO. STP-2384(900)
PROJECT LENGTH 0.02 mi.
BRIDGE NO. 2765

PROJECT LOCATION	Located in the Town of Fryeburg 3.8 miles east of Junction Route 5, carrying U.S. Route 302 over the Saco River Overflow. Lat./Long. 44°01'44" N 70°54'30" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge Replacement

WIN 23849.00

STP-2384(900)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER

DATE
12/17/18
CHIEF ENGINEER: Jeff Noel Taylor

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT INFORMATION

PROGRAM
PROJECT MANAGER
DESIGNER
CONSULTANT
PROJECT RESIDENT
CONTRACTOR

BRIDGE
JOSEPH STILLWELL
SARAH WILLIAMS
STANTEC

SIGNATURE
12/5/18
P.E. NUMBER
12/11/18
DATE

FRYEBURG
SHORTRIDGE BRIDGE

TITLE SHEET

SHEET NUMBER
A1
OF A20

Date: 12/11/2018

Username: sjwilliams

Division: BRIDGE

Filename: \\00\BRIDGE\MSTA\0A1_Title.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNITS
202.19	REMOVING EXISTING BRIDGE (270 CY)	1	LS
203.25	GRANULAR BORROW	450	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY	370	CY
501.239	DYNAMIC LOADING TESTS-PROVIDING FOR	2	EA
501.50	STEEL H-BEAM PILES 89 LB/FT, DELIVERED	490	LF
501.501	STEEL H-BEAM PILES 89 LB/FT, IN PLACE	452	LF
501.90	PILE TIPS	8	EA
501.91	PILE SPLICES	8	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (110 CY)	1	LS
502.261	STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON CONCRETE BRIDGES (75 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (26 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (8 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	19500	LB
503.13	REINFORCING STEEL, PLACING	19500	LB
503.17	MECHANICAL/WELDED SPLICE	68	EA
503.26	STAINLESS STEEL REINFORCEMENT, FABRICATED AND DELIVERED	17000	LB
503.27	STAINLESS STEEL REINFORCEMENT, PLACING	17000	LB
507.0821	STEEL BRIDGE RAILING, 3 BAR (110 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (260 SY)	1	LS
511.07	COFFERDAM ABUTMENT 1	1	LS
511.07	COFFERDAM ABUTMENT 2	1	LS
514.06	CURING BOX FOR CONCRETE CYUNDERS	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (120 SY)	1	LS
520.232	EXPANSION DEVICE - ASPHALTIC PLUG JOINT	68	LF
524.301	TEMPORARY STRUCTURAL SUPPORT	1	LS
526.301	TEMPORARY CONCRETE BARRIER (400 LF)	1	LS
526.305	TEMPORARY CONCRETE BARRIER , BRACED TYPE I (100 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	EA
527.34	WORK ZONE CRASH CUSHIONS	4	UN
535.622	PRESTRESSED STRUCTURAL CONCRETE NEXT BEAM (72 CY)	1	LS
606.1307	BRIDGE TRANSITION (ASYMMETRICAL) - TYPE 1	4	EA
610.08	PLAIN RIPRAP	520	CY
613.319	EROSION CONTROL BLANKET	30	SY
620.58	EROSION CONTROL GEOTEXTILE	520	SY
620.66	DRAINAGE GEOCOMPOSITE	82	SY
629.05	HAND LABOR, STRAIGHT TIME	35	HR
631.121	HEAVY DUTY ALL-PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
643.72	TEMPORARY TRAFFIC SIGNAL	0.5	LS
652.312	TYPE III BARRICADES	4	EA
652.33	DRUM	50	EA
652.34	CONE	100	EA
652.35	CONSTRUCTION SIGNS	150	SF
652.38	FLAGGERS	430	HR
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	2	EA
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.
2. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.
3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
4. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
5. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.
6. All embankment material, except as otherwise shown, placed below EL. 380.00 at Abutment No.1 and EL. 378.5 at Abutment No. 2 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
7. Place riprap on sideslopes up to EL. 377.00.
8. Construct the riprap shelf at Abutment No.1 at EL. 376.00 and Abutment No. 2 at EL. 375.00.
9. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident as part of WIN 17280.00.
10. 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 as part of WIN 17280.00.
11. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
12. An NCHRP350 or MASH compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.
13. Protective Coating for Concrete Surfaces shall be applied to the following areas:

All exposed surfaces of concrete curbs, Fascias down to the drip notch, All exposed surfaces of Concrete Transition Barriers, Top of abutment backwalls and to one foot below the top of backwalls on the back side, Top face and exposed back surface of wingwalls.
14. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>.
15. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
16. The hydrologic information listed on the title sheet for the bridge site is based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information will be representative of actual conditions at the time of construction.
17. The project geotechnical report titled: Geotechnical Design Report Shortridge Bridge NO. 2765 over Saco River Overflow, September 2018 may be accessed at the MaineDOT web address.
18. 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.

19. 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.

20. Payment for excavation of existing embankment material located between the existing abutments and the new abutments and outside of the structural earth excavation limits shall be paid for under Item 202.19 Removing Existing Bridge.

21. Install two layers of 6 mil polyethylene sheeting under approach slabs. Payment will be considered incidental to Item No. 502.31, Structural Concrete Approach Slab.

22. Transverse saw cuts in the pavement at the ends of approach slabs shall be sealed with emulsified asphalt sealing compound conforming to Specification 702.12. The saw cut and emulsified asphalt sealing shall not be paid for directly, but considered incidental to related Contract Items.

23. Vertical project limits between WIN 23849.00 and WIN 17280.00 are shown in the Bridge Profile. All Items above the bottom of the subbase course gravel and approach slabs within the bridge project limits and embankment construction outside of the granular borrow and riprap limits shall be paid for as part of WIN 17280.00. High Performance Waterproofing Membrane, Permanent Concrete Transition Barriers and Bridge Guardrail Transitions are included under WIN 23849.00.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-2384(900)

WIN
23849.00

BRIDGE NO. 2765
BRIDGE PLANS

SHORTRIDGE BRIDGE
SACO RIVER OVERFLOW
FRYEBURG OXFORD COUNTY

ESTIMATED QUANTITIES &
CONSTRUCTION NOTES

SHEET NUMBER
A2
OF A20



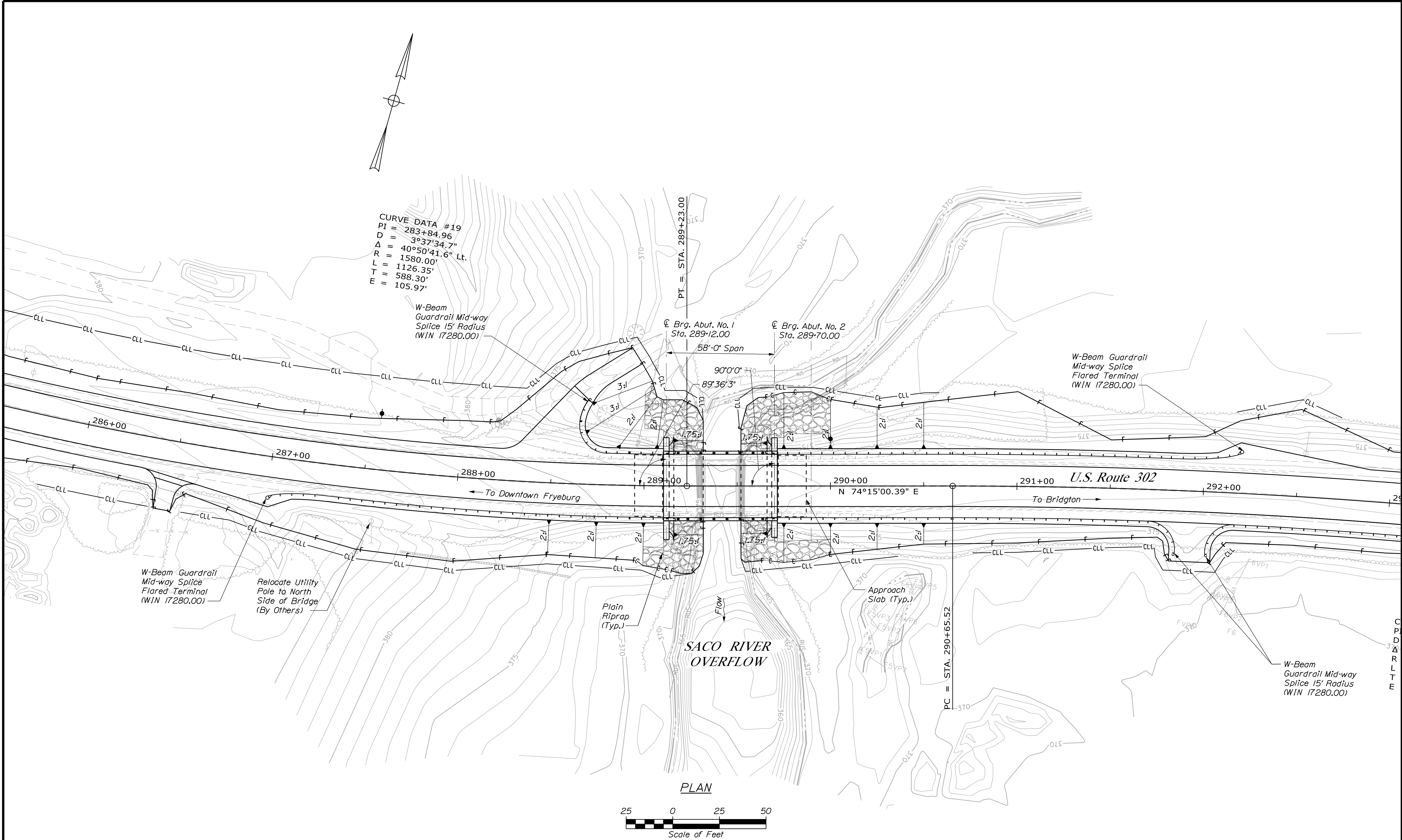
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CHECKED-REVIEWED	JS	SW	DEC 2018			
DESIGN-DETAILED	LSF	LSF	DEC 2018			
DESIGN-DETAILED						
REVISIONS 1						
REVISIONS 2						
REVISIONS 3						
REVISIONS 4						
FIELD CHANGES						

Date:12/14/2018

Username: iflanders

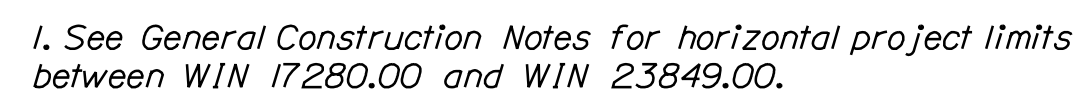
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STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		STP-2384(900)		BRIDGE NO. 2765		WIN 23849.00		BRIDGE PLANS	
SHORTRIDGE BRIDGE		SACO RIVER OVERFLOW		OXFORD COUNTY		Fryeburg		GENERAL PLAN		SHEET NUMBER	
DESIGN-DETAILED		CHECKED-REVIEWED		DESIGN-DETAILED		REVISIONS 1		REVISIONS 2		REVISIONS 3	
J. STILLWELL		S.W.		L.S.F.		F.V.P.		F.V.P.		F.V.P.	
DATE		DATE		DATE		DATE		DATE		DATE	
DEC 2018		DEC 2018		DEC 2018		DEC 2018		DEC 2018		DEC 2018	
SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE	
P.E. NUMBER		P.E. NUMBER		P.E. NUMBER		P.E. NUMBER		P.E. NUMBER		P.E. NUMBER	
DATE		DATE		DATE		DATE		DATE		DATE	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	
A3		OF A20									





Date:11/29/2018

Username: common

Division: HIGHWAY

Filename: ... \GZA Figures\005_BLP.dgn

SHORTRIDGE BRIDGE NO. 2765 OVER SACO RIVER
OVERFLOW MAINEDOT WIN 23849.00
FRYEBURG, ME

BORING LOCATION PLAN

PREPARED BY:
 **GZA** GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:

STANTEC

PROJ MGR: NVW
DESIGNED BY: NVW
DATE: 11/20/18

REVIEWED BY: ARB
DRAWN BY: NVW
PROJECT NO. 09.0025967.00

CHECKED BY: CLS
SCALE: AS SHOWN
REVISION NO. 0

FIG
2
SHEET NO. 1 OF 1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-2384(900)
WIN
23849.00
BRIDGE NO. 2765
BRIDGE PLANS



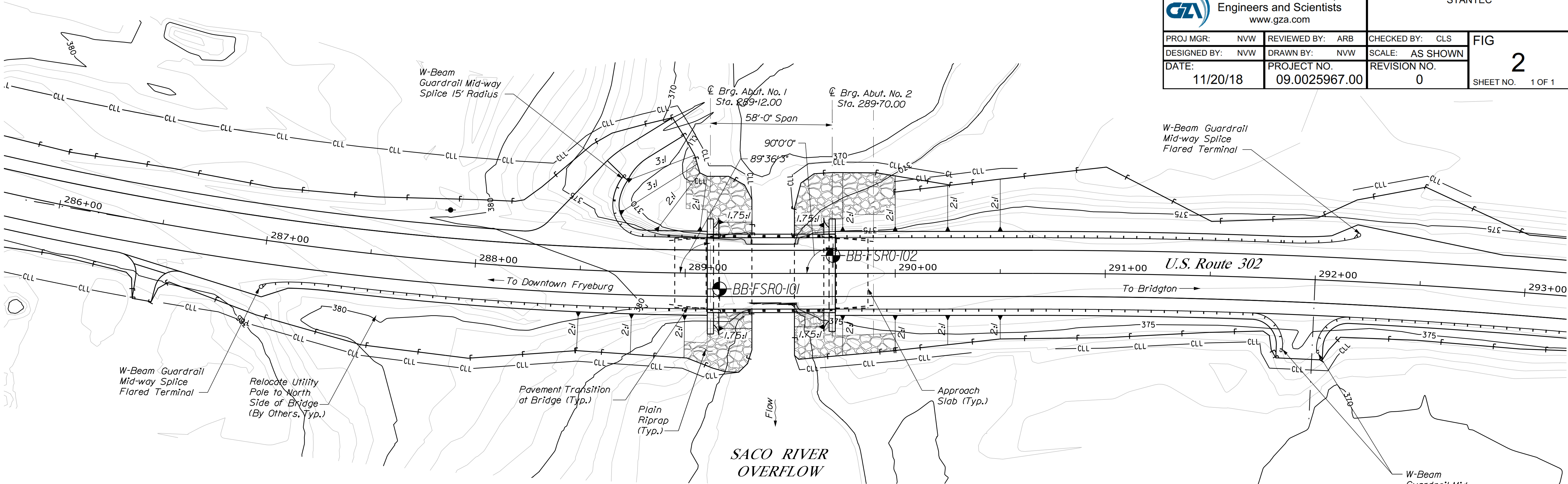
Andrew R. Blaisdell
SIGNATURE
10957
P.E. NUMBER
11/20/2018
DATE

PROJ. MANAGER	J. STILLWELL	BY	DATE
DESIGNED	NVW	NVW	NOV 2018
CHECKED	ARB	CLS	NOV 2018
DESIGNED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SHORTRIDGE BRIDGE
SACO RIVER OVERFLOW
FRYEBURG
OXFORD COUNTY
BORING LOCATION PLAN

SHEET NUMBER
A5
OF A20

PREPARED BY:

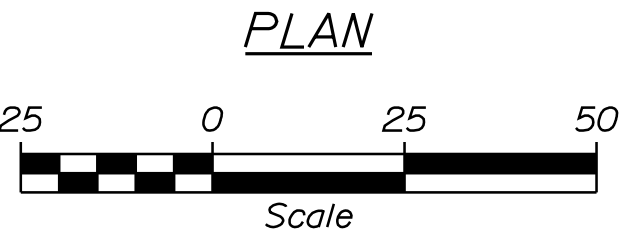



NOTES

- 1) Base map developed from electronic files (Text.dgn, Alignments.dgn, wetlands.dgn, Topo.dgn, and Contours.dgn) provided by Stantec on May 21, 2018, and from an electronic file (bridge.dgn) provided by Stantec on September 12, 2018.
- 2) The as-drilled locations of the test borings were surveyed by MaineDOT and provided by Stantec in an electronic file (Borings_03-29-18.dgn).
- 3) BB-FSR0-100 series bridge borings were performed by New England Boring Contractors and observed by GZA personnel between March 6 and 16, 2018.

BORING LOCATION PLAN LEGEND

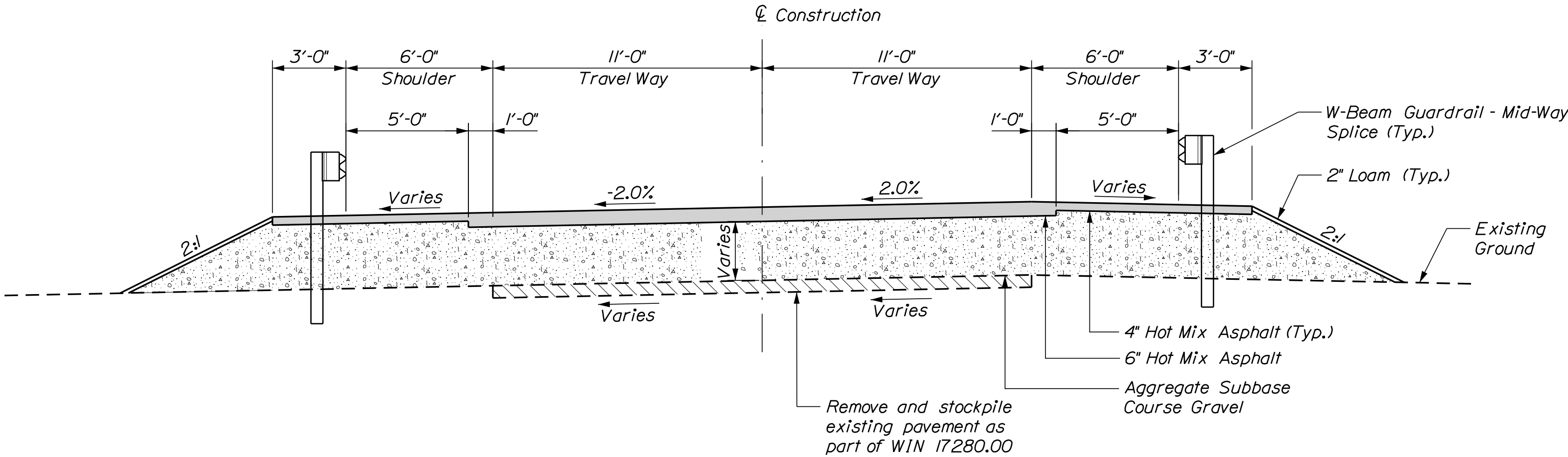
 BB-FSR0-102 Location and designation of 100-Series cased wash boring



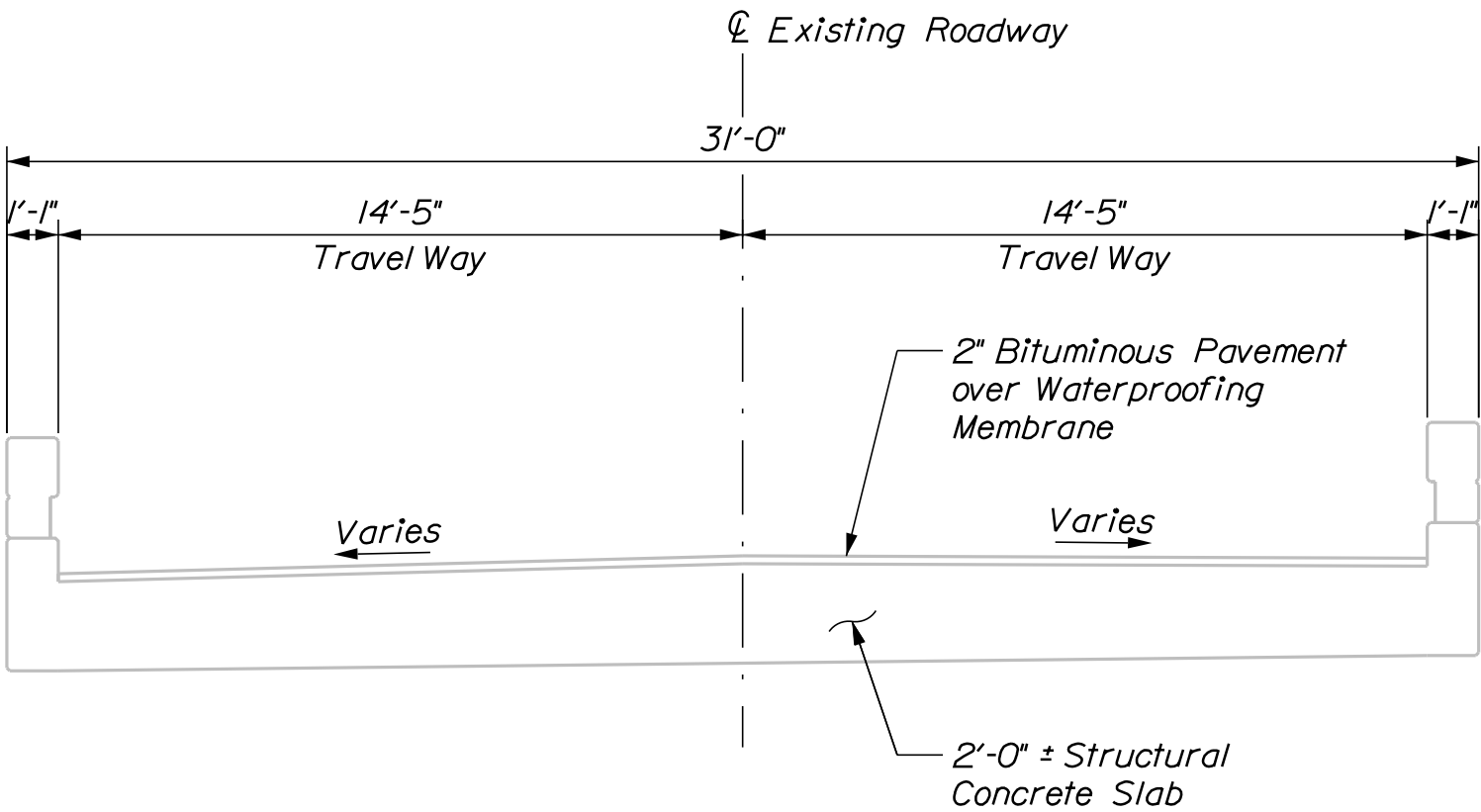
Page 1 of 1
Boring No.: 88-FSR0-101

Page 1 of 1
Boring No.: BB-FSRO-102





TYPICAL APPROACH SECTION

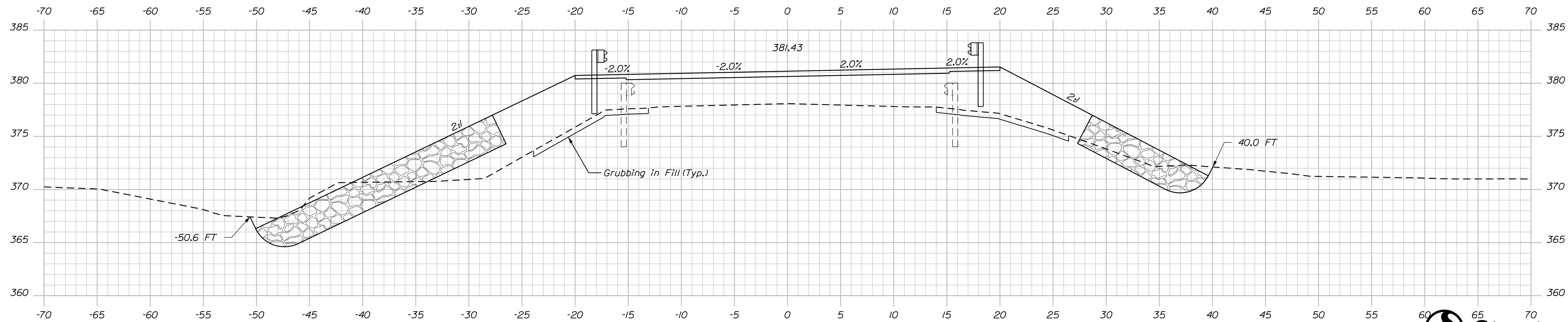


EXISTING TRANSVERSE SECTION

SHORTRIDGE BRIDGE SACO RIVER OVERFLOW FRYEBURG OXFORD COUNTY	STATE OF MAINE DEPARTMENT OF TRANSPORTATION		STP-2384(900)		WIN 23849.00		BRIDGE NO. 2765 BRIDGE PLANS	
	DESIGNED-DRAWN DESIGNED-REVIEWED DESIGNED-DETAILS REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		DATE DEC 2018 DEC 2018 DEC 2018 DEC 2018 DEC 2018 DEC 2018 DEC 2018 DEC 2018		BY LSW LSW LSF LSF LSF LSF LSF LSF		SIGNATURE P.E. NUMBER DATE	
	TYPICAL SECTIONS		SHEET NUMBER A8 OF A20					

NOTE: Pavement Bridge Transition: See Standard Detail 80(10), pave with 6 inches hot mix asphalt in transition area as directed by the resident

End Project WIN 23849.00
Limit of Work WIN 17280.00



289+89.65



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-2384(900)
BRIDGE NO. 2765
WIN 23849.00
BRIDGE PLANS

PROJ. MANAGER	J. STILLWELL	BY	DATE
DESIGN-DETAILED	SJB	SJB	DEC 2018
CHECKED-REVIEWED	MJD	SJB	DEC 2018
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SHORTRIDGE BRIDGE
SACO RIVER OVERFLOW
OXFORD COUNTY
FRYEBURG
CROSS SECTIONS

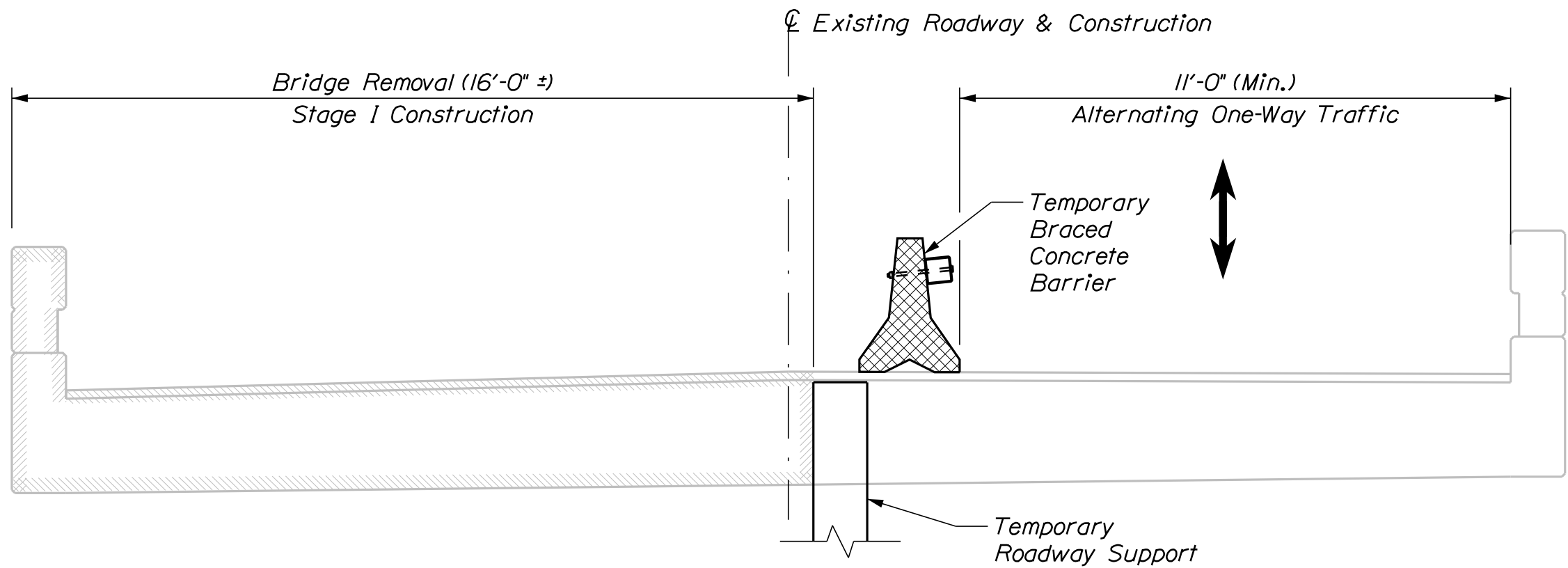
SHEET NUMBER
A10
OF A20

Date:12/14/2018

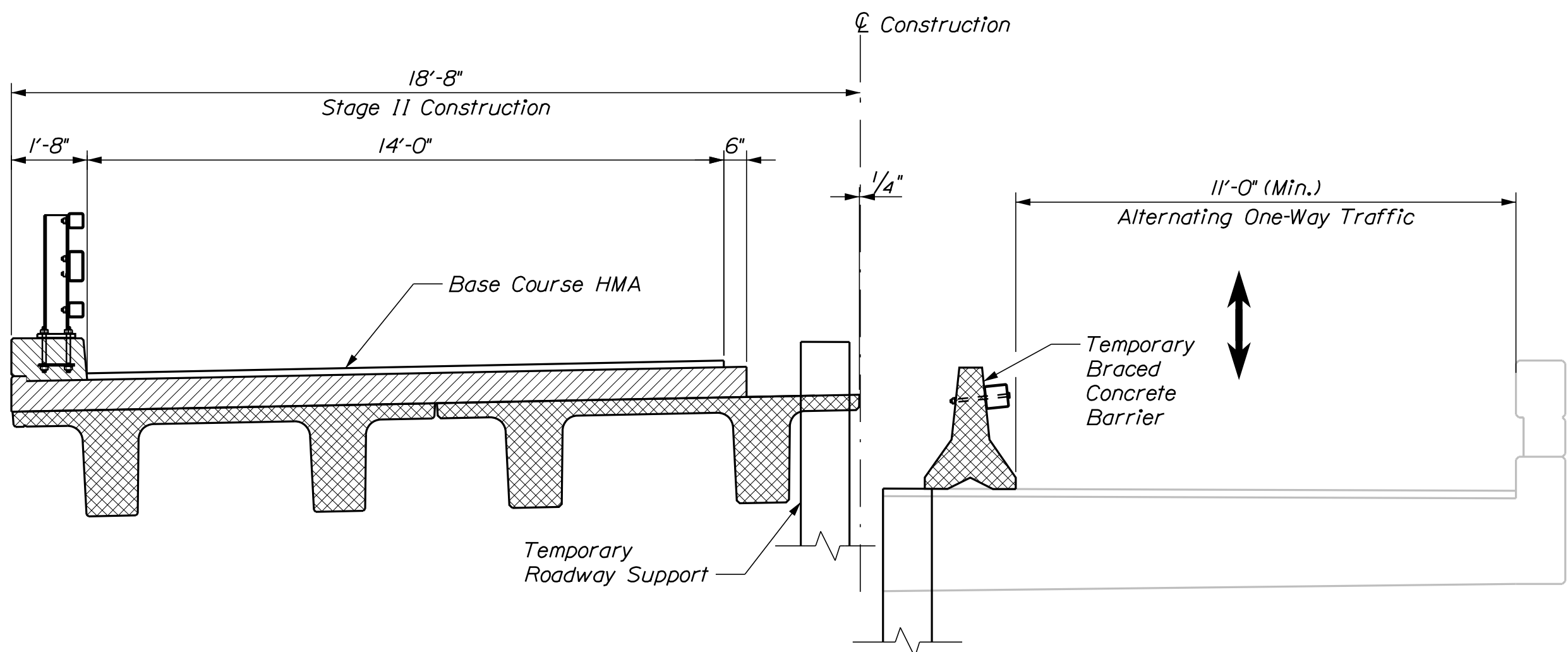
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Division: BRIDGE

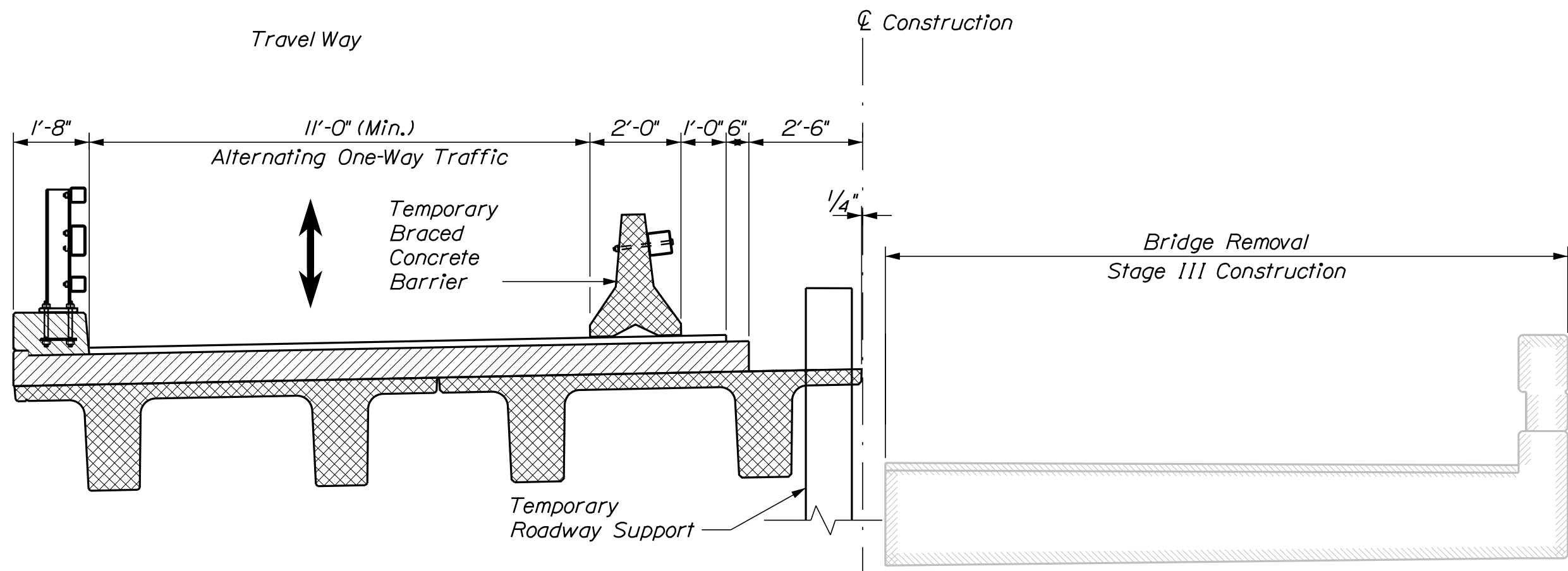
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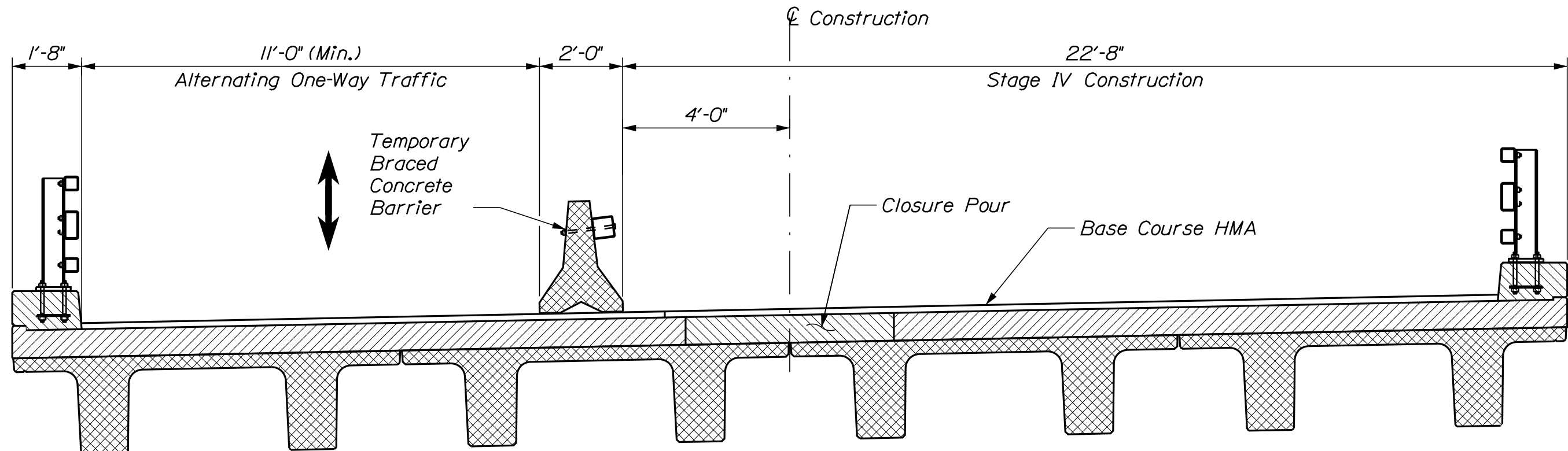
- STAGE I**
1. Install temporary signal and traffic control.
 2. Shift traffic to south side of bridge.
 3. Install temporary roadway support.
 4. Demolish north side of bridge.



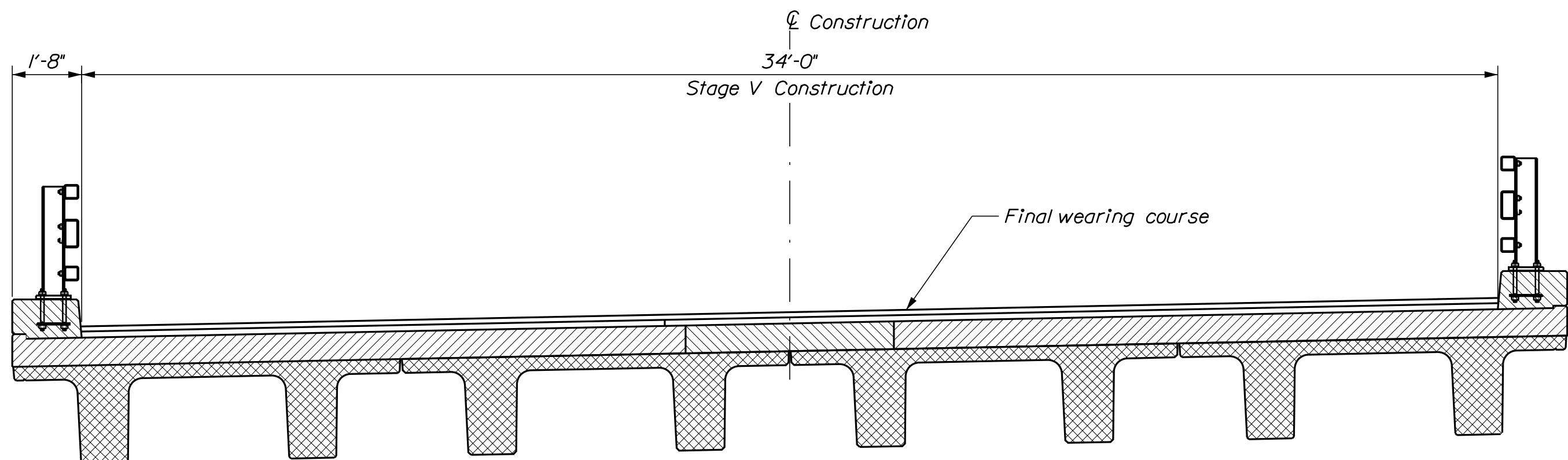
- STAGE II**
1. Construct north side of bridge.
 2. Install temporary roadway north of Stage I temporary roadway support.



- STAGE III**
1. Shift traffic to north side of bridge.
 2. Demolish south side of bridge and remove temporary roadway support installed during Stage I.



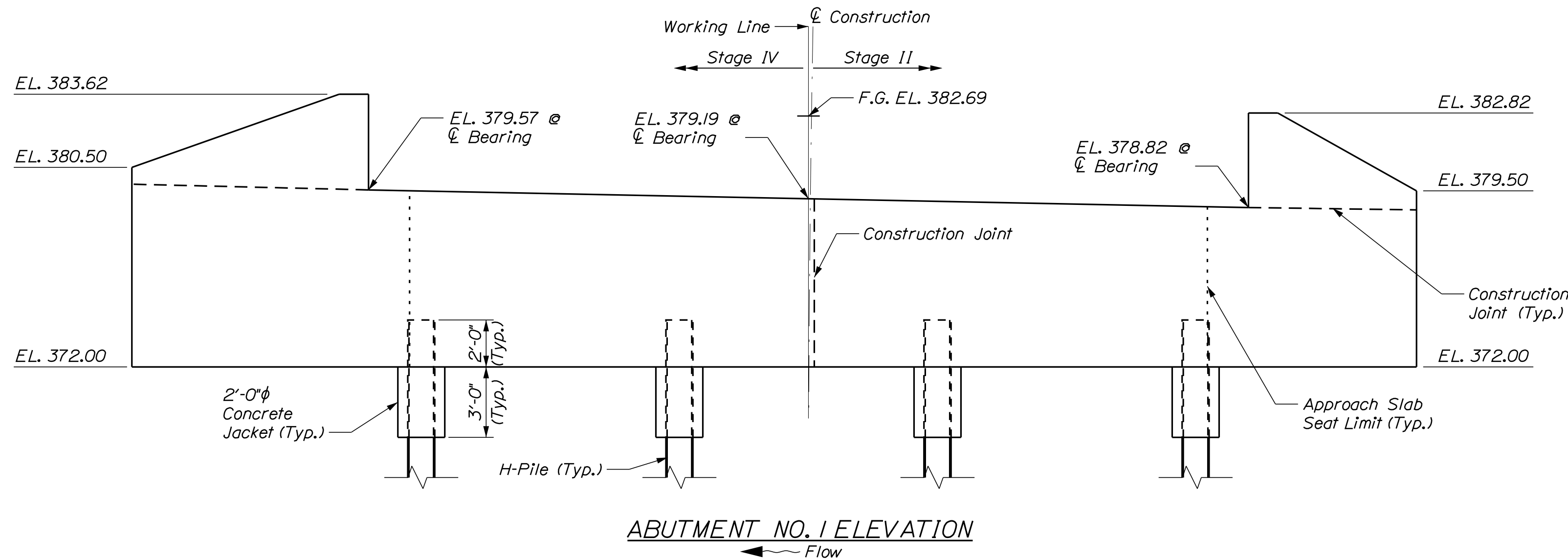
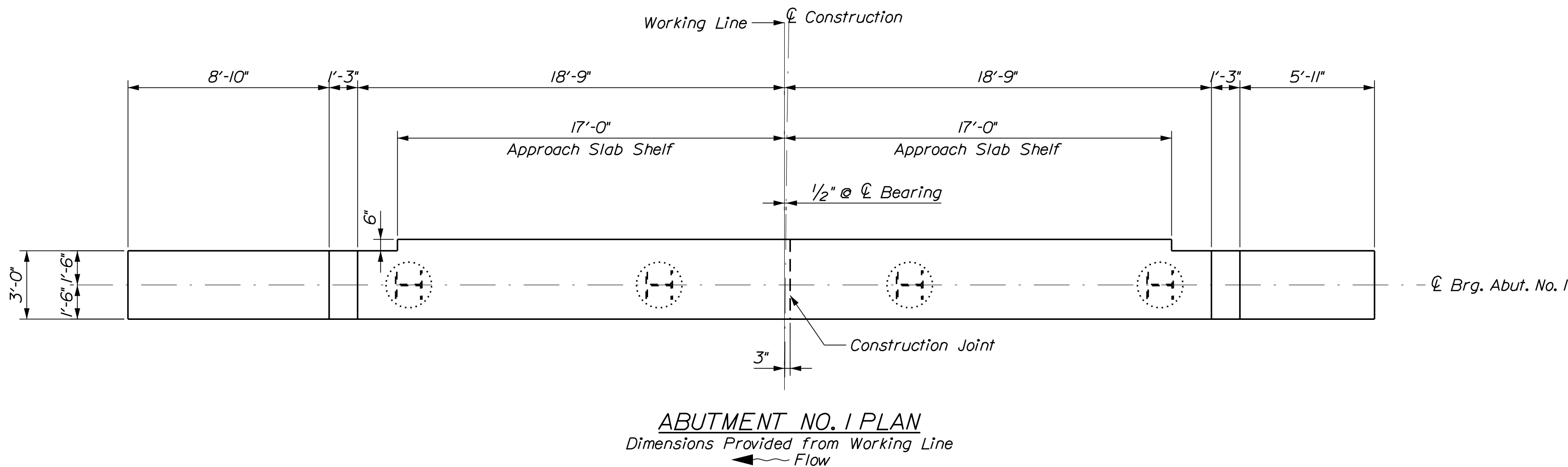
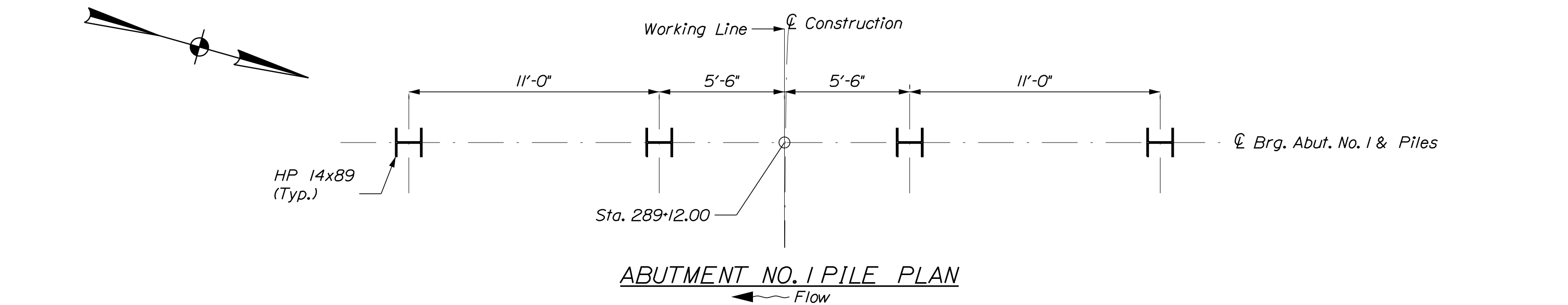
- STAGE IV**
1. Construct south side of bridge.
 2. Construct closure pour.
 3. Construct base course of pavement.



- STAGE V**
1. Maintain one 11'-0" minimum lane of alternating one-way traffic to install final wearing course of pavement.



PROJ. MANAGER	J. STILLWELL	BY	DATE
DESIGN-DETAILED	LSW	DJB	DEC 2018
CHECKED-REVIEWED	JCS	LSW	DEC 2018
DESIGN-DETAILED	LSF	LSF	DEC 2018
DESIGN-DETAILED			
REVISIONS 1			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



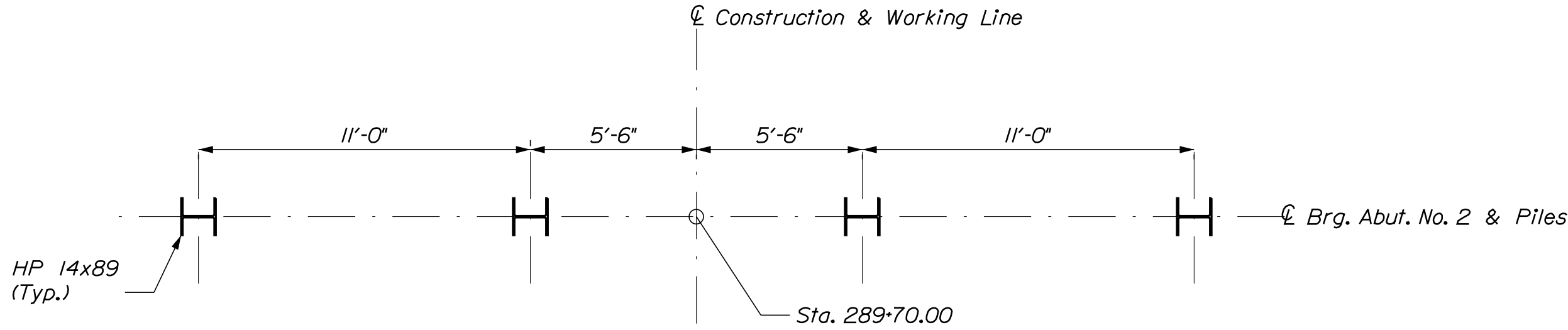
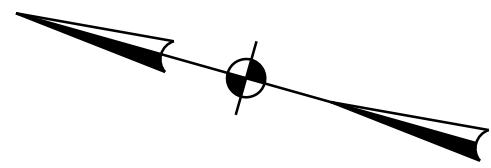
ABUTMENT NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
2. Place 4-in. diameter drains in the breastwall and wingwalls at 10-ft maximum spacing. The exact location will be determined by the Resident.
3. Place the parapet portions of the wingwalls after erection of the precast units to ensure an accurate match with the superstructure.
4. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
5. Payment for the concrete jackets around the top of the H-piles will be considered incidental to related Contract items. No separate payment will be made. Fill concrete may be used for the concrete jackets.
6. Payment for excavation necessary to construct the concrete pile jackets shall be considered incidental to related Contract items.
7. Install drainage geocomposite behind the abutments and wingwalls up to the approach slab seat elevation and in accordance with Special Provision Section 620, Drainage Geocomposite.

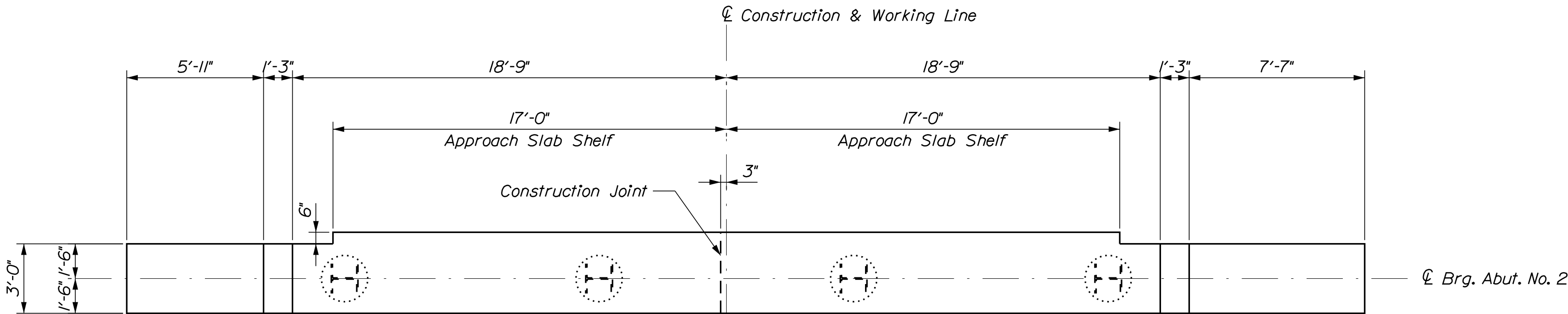
PILE NOTES

1. The maximum factored pile load is 323 kips for the Strength I limit state.
2. H-pile material shall be ASTM A 572, Grade 50.
3. Estimate of piles required:

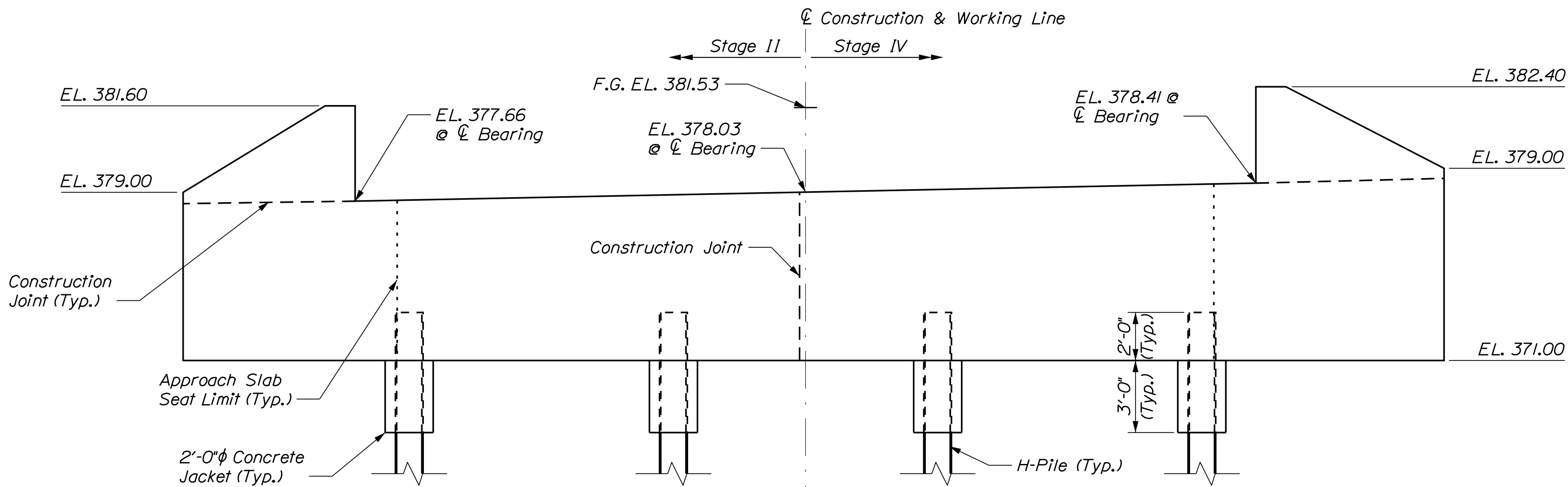
Abutment No. 1: 4 ~ HP 14x89 @ 56 feet
Abutment No. 2: 4 ~ HP 14x89 @ 57 feet
4. The order lengths of the piles shall include an additional 5 feet of length for each test pile to accommodate dynamic pile testing equipment.
5. All piles shall be equipped with a pile tip in accordance with Standard Specifications Subsection 501.048 - Prefabricated Pile Tips.
6. Piles shall be driven to the required resistance on or within bedrock in accordance with Standard Specification 501 - Foundation Piles.
7. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. 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 2 dynamic load tests with 24 hour (min.) restrike tests to confirm the nominal capacity of the piles. The required nominal resistance for 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 each abutment. The Contractor may drive production piles to the preliminary driving criteria, however pile cut-off will not be permitted until completion of restrike testing and establishment of final driving criteria.



ABUTMENT NO. 2 PILE PLAN



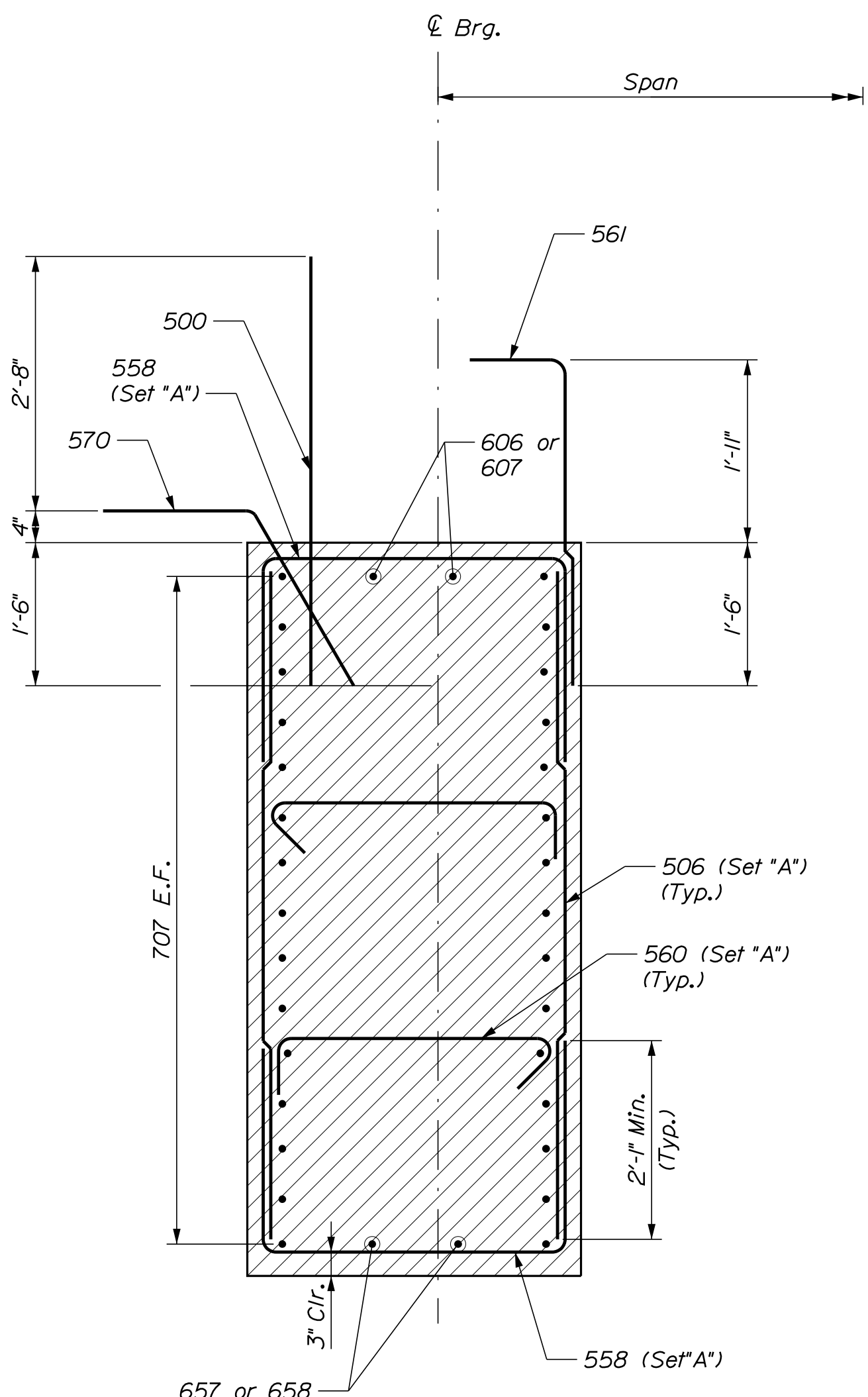
ABUTMENT NO. 2 PLAN
Dimensions Provided from Working Line



ABUTMENT NO. 2 ELEVATION

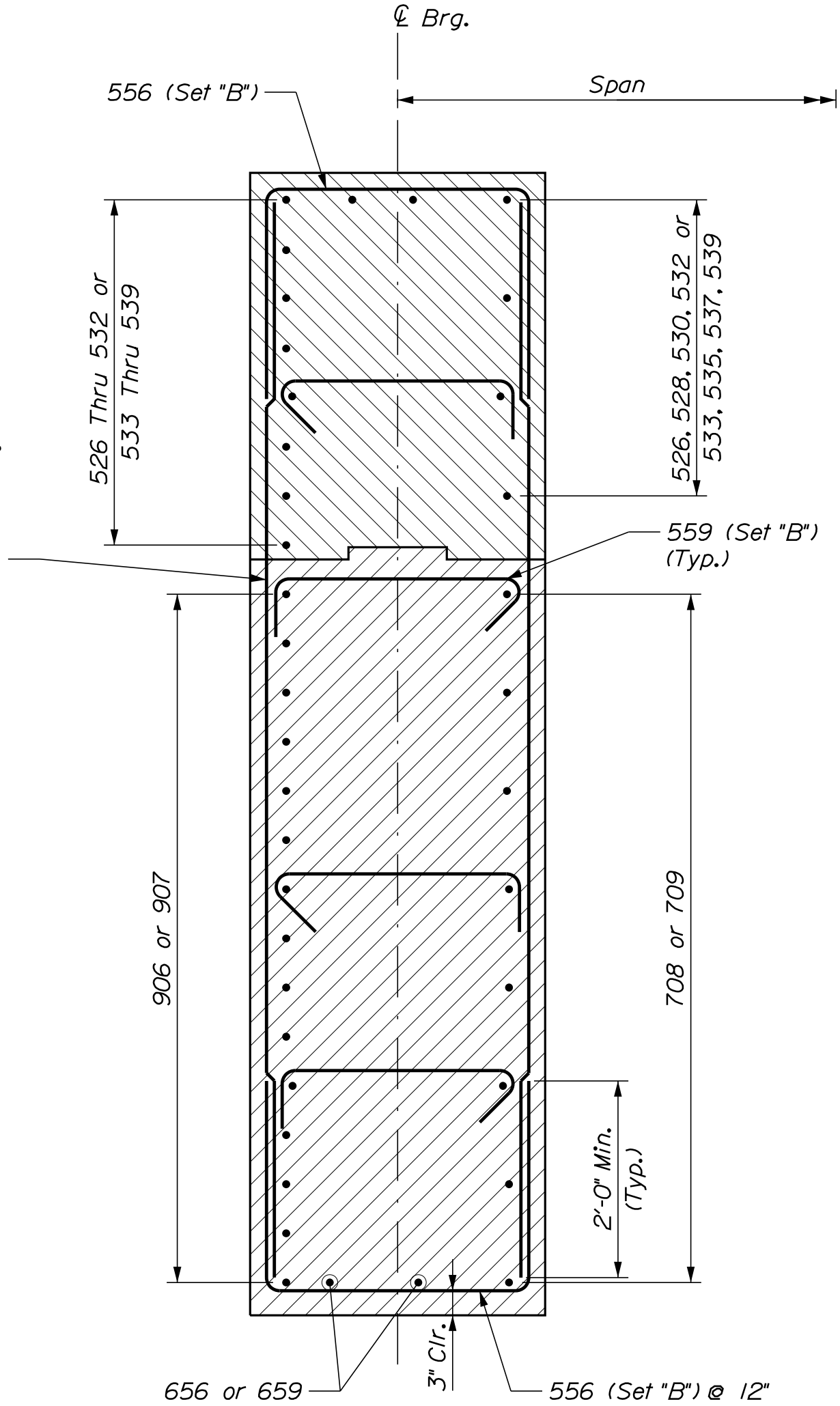


STATE OF MAINE										DEPARTMENT OF TRANSPORTATION										STP-2384(900)										WIN										23849.00										BRIDGE NO. 2765										BRIDGE PLANS																																																																																									
PROJ. MANAGER										J. STILWELL										BY										DATE										SIGNATURE										P.E. NUMBER										DATE																																																																																									
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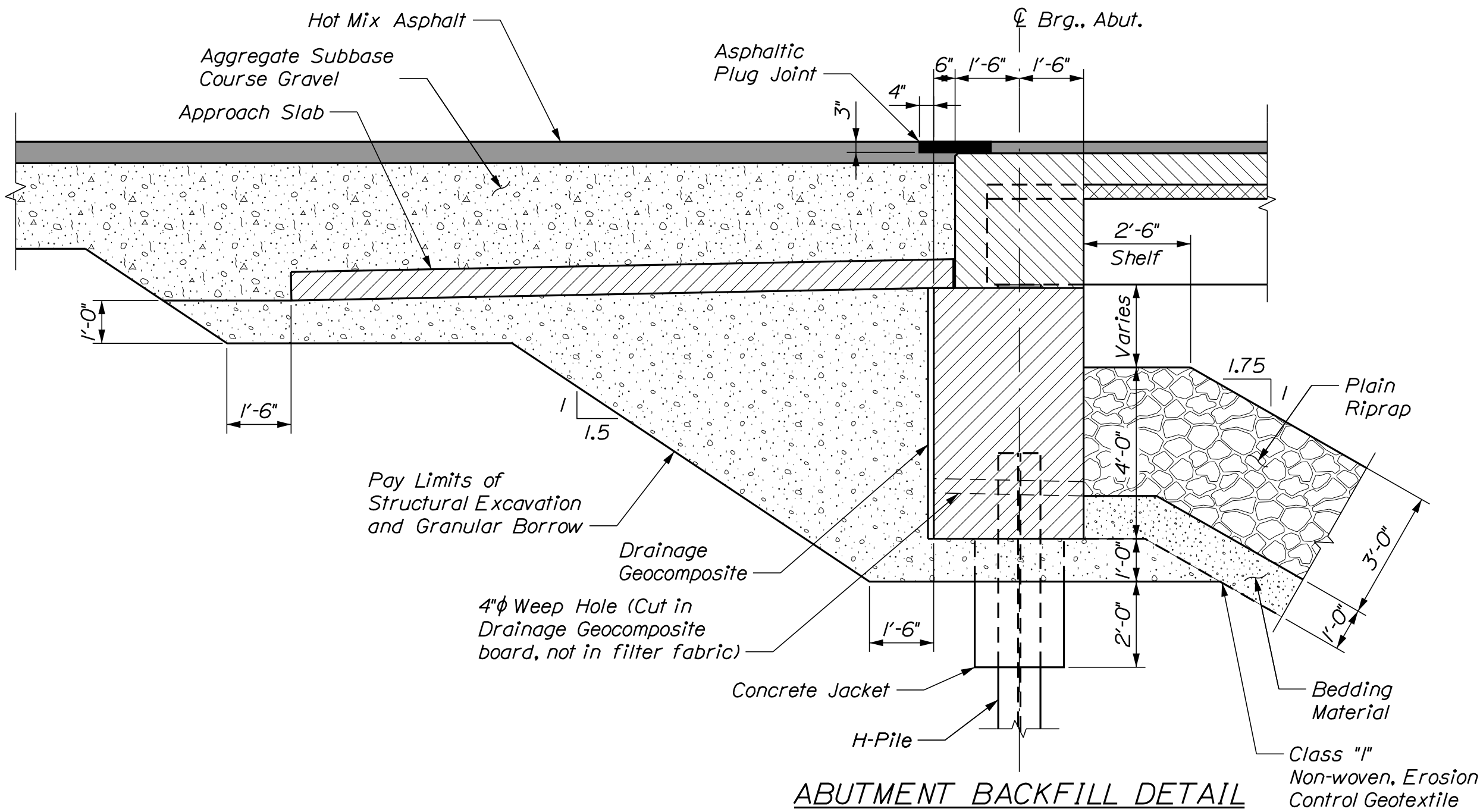


TYPICAL ABUTMENT SECTION

A507 thru A517, A518 thru 525, B507 thru B514, or B515 thru B523 (Placed With Set "B") (Typ.)



TYPICAL WINGWALL SECTION



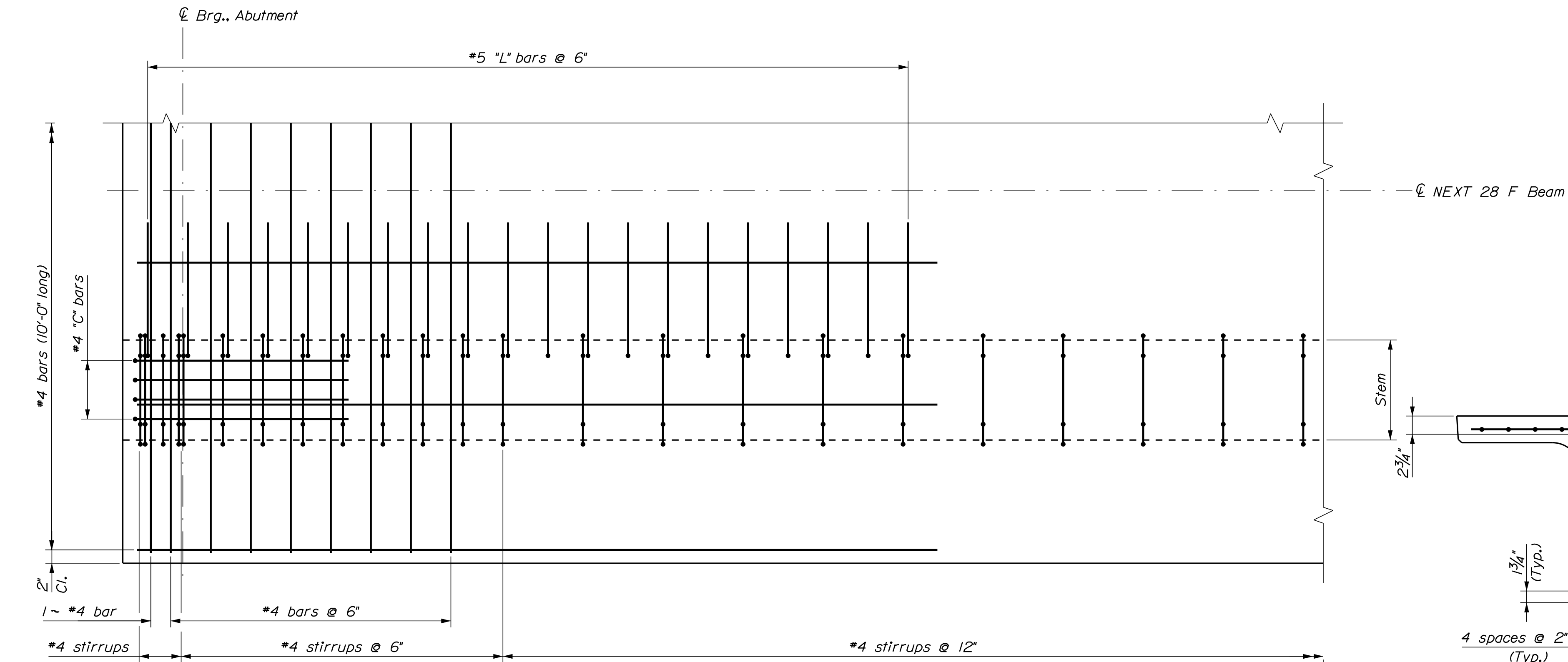
ABUTMENT BACKFILL DETAIL

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		STP-2384(900)		BRIDGE NO. 2765		WIN		23849.00		BRIDGE PLANS	
SHORTRIDGE BRIDGE		SACO RIVER OVERFLOW		OXFORD COUNTY		FRYEBURG		ABUTMENT SECTIONS		SHEET NUMBER		A15	
PROJ. MANAGER		J. STILLWELL		BY		DATE		SIGNATURE		P.E. NUMBER		DATE	
DESIGN-DETAILED		LSW		DJB		DEC 2018							
CHECKED-REVIEWED		JGS		LSW		DEC 2018							
DESIGN-DETAILED		LSF		LSF		DEC 2018							
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													

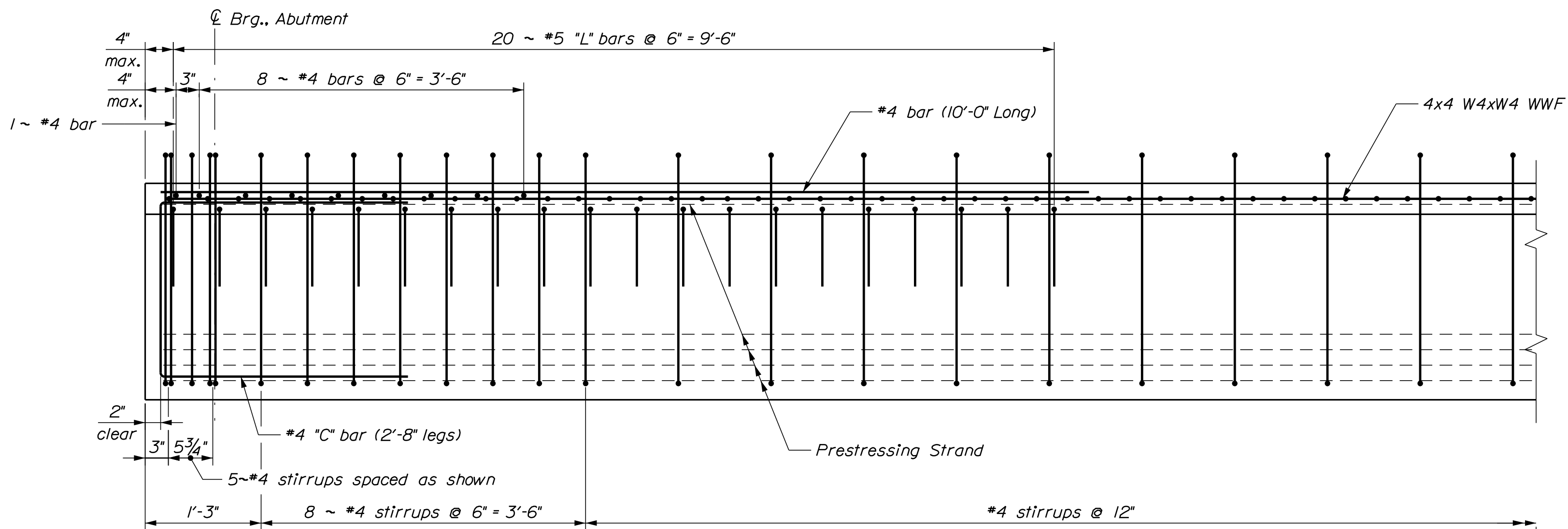


11. Concrete retarding admixtures shall be applied to the form surfaces of the NEXT beam stems that will come in contact with the cast-in-place concrete end diaphragms. All such surfaces shall be power washed with water prior to installation to provide a nominal $1/8$ -inch roughened surface with exposed aggregate. Alternate methods of achieving an equivalent roughened surface may be proposed. Payment for achieving the surface finish will be considered incidental to related contract items.

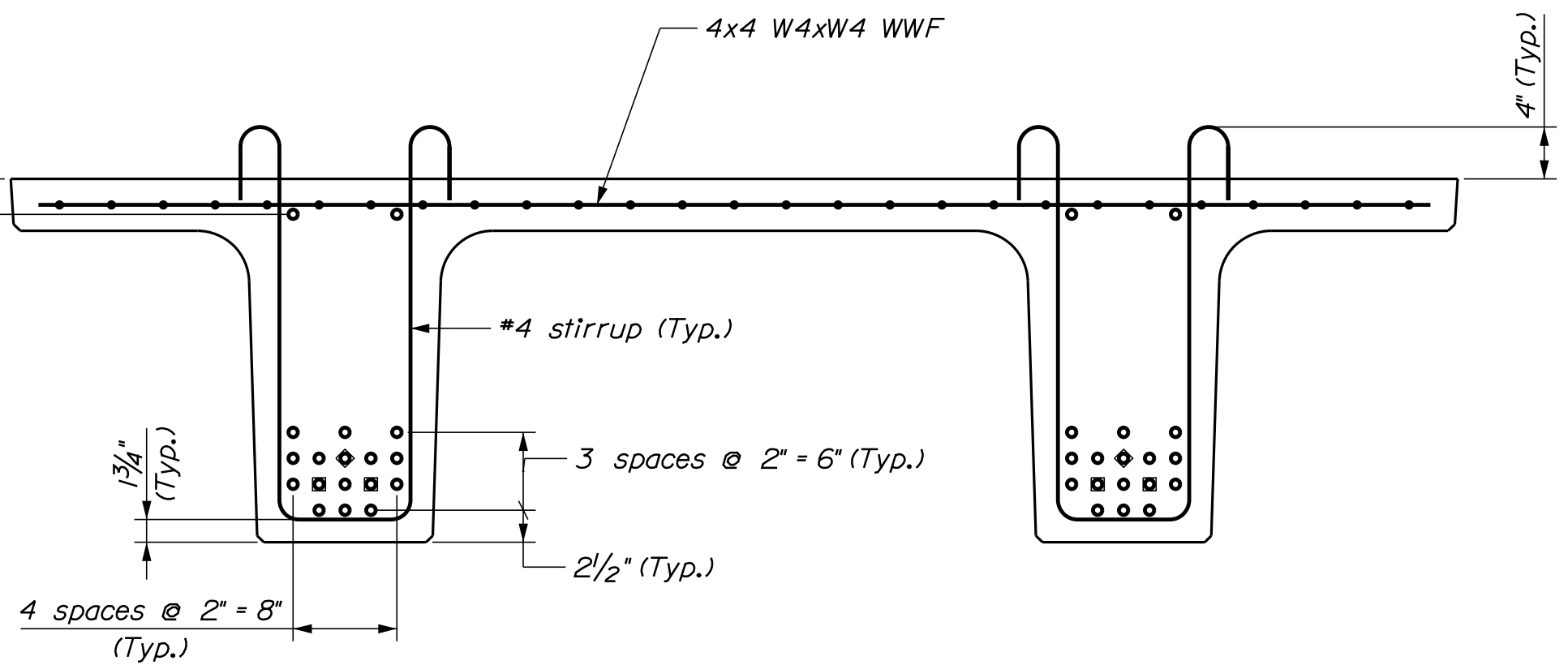
OF A20



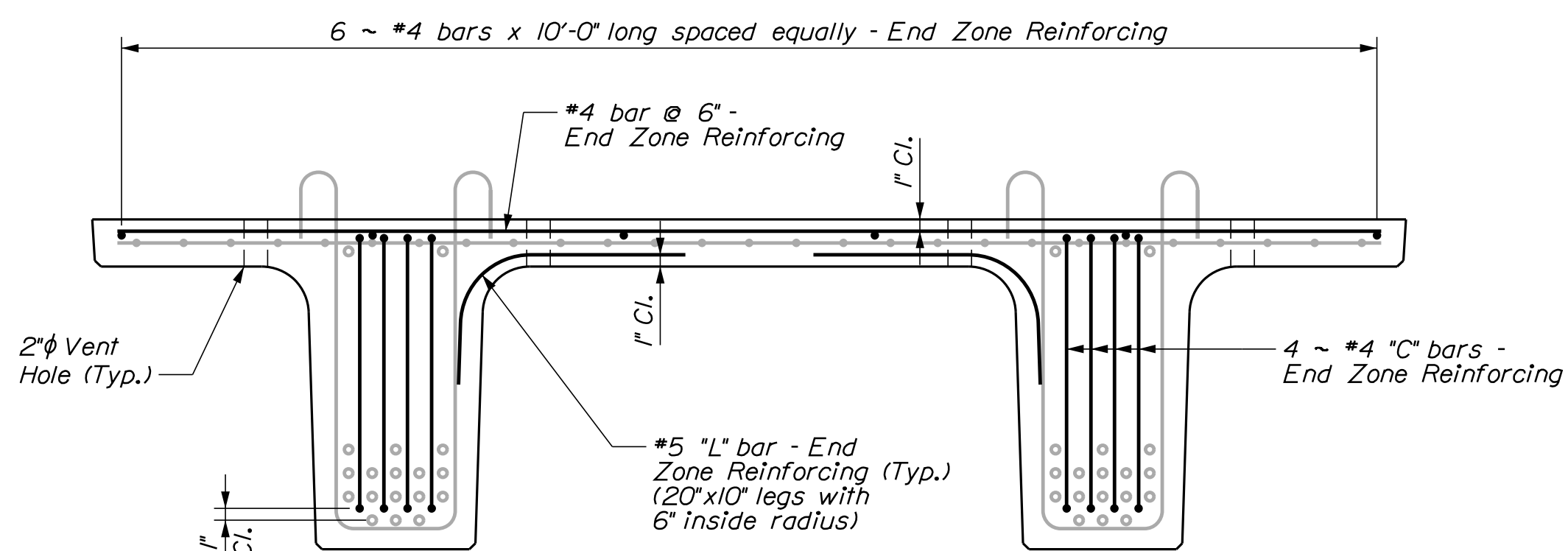
NEXT F BEAM PART REINFORCING PLAN
Welded Wire Fabric and prestressing strands not shown for clarity



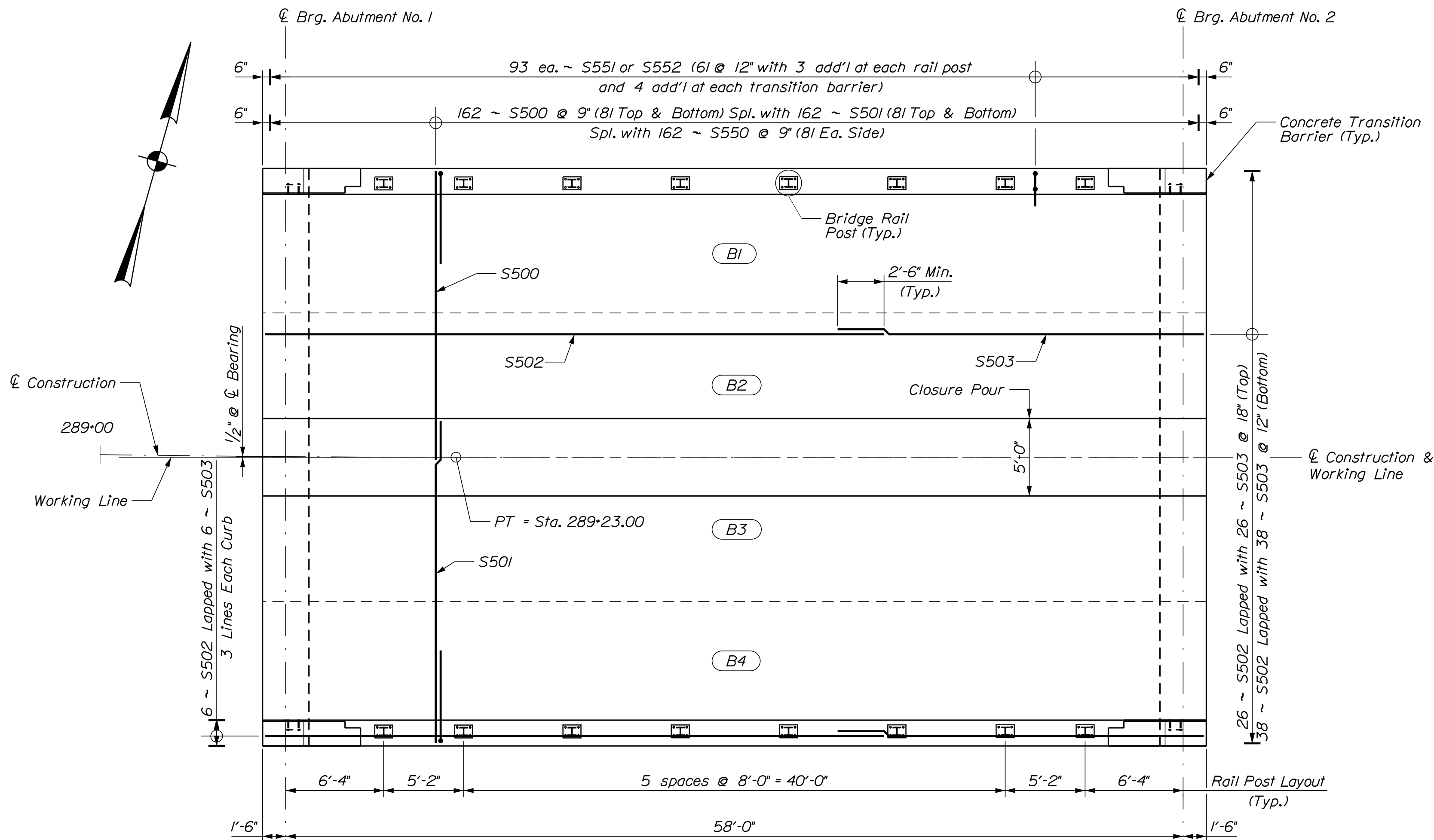
NEXT F BEAM PART REINFORCING ELEVATION



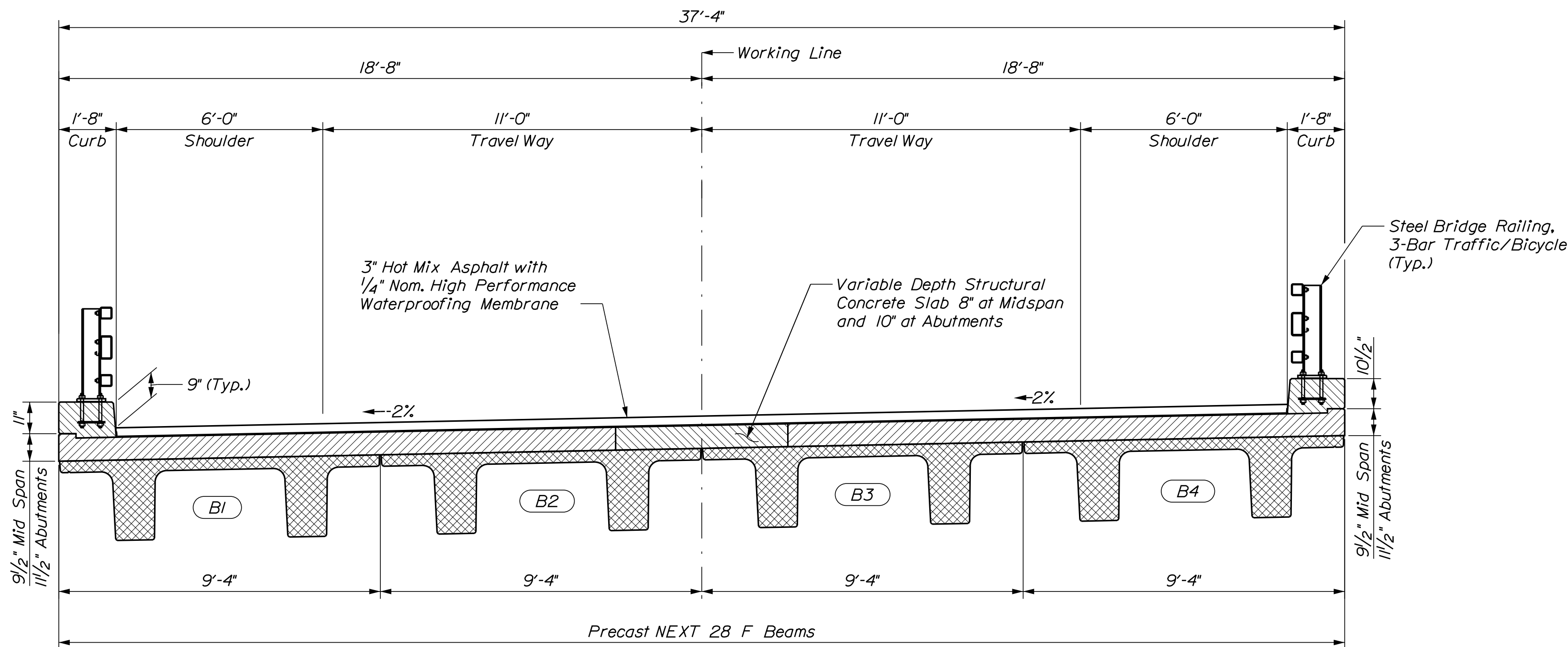
NEXT 28 F BEAM TYPICAL REINFORCING SECTION
◆ Strands debonded 8 ft.
■ Strands debonded 12 ft.



NEXT 28 F BEAM TYPICAL END REINFORCING SECTION



SUPERSTRUCTURE PLAN
Dimensions are Horizontal



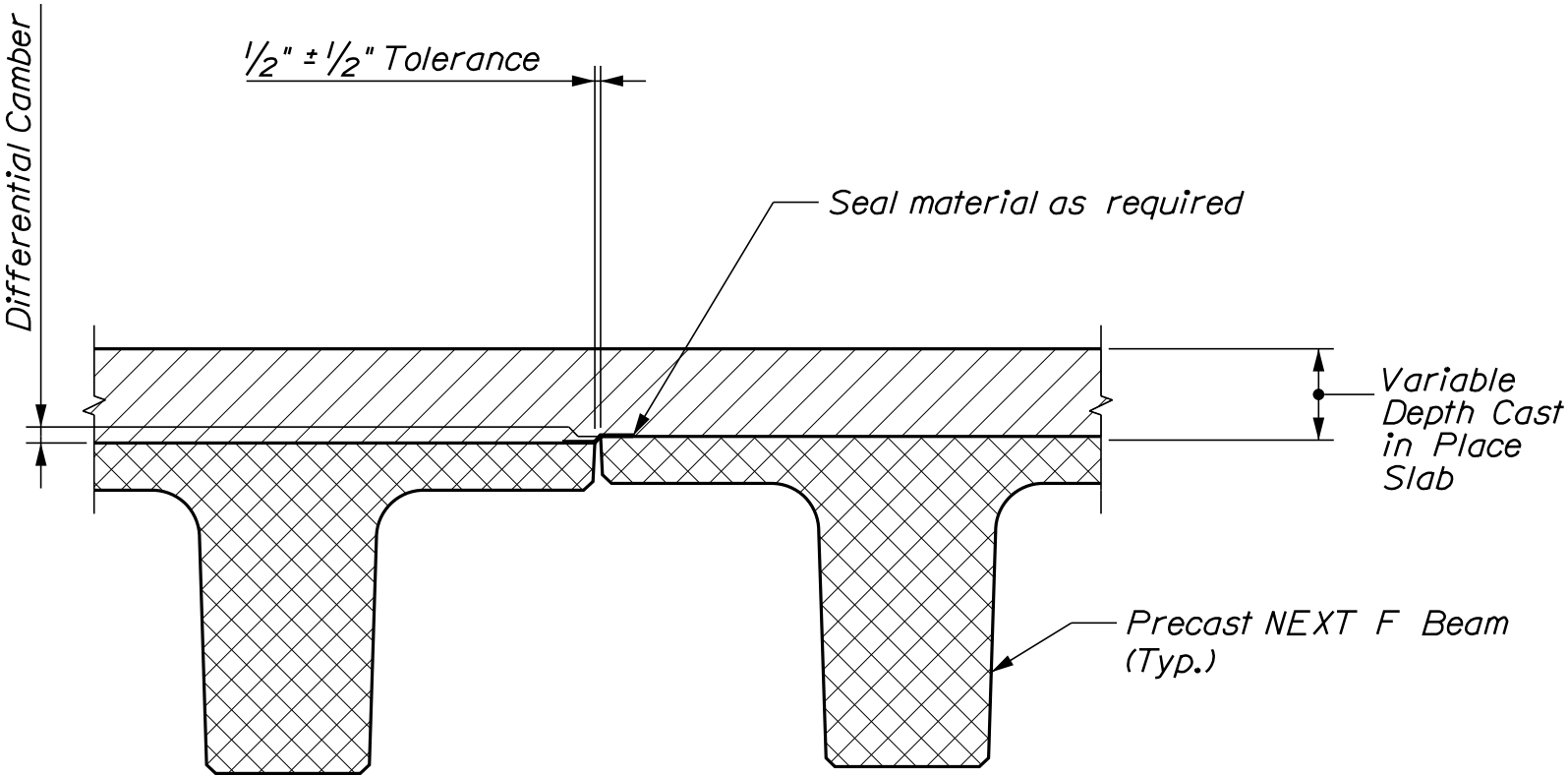
PROPOSED TRANSVERSE SECTION

SUPERSTRUCTURE NOTES

1. The deck thickness and curb stirrup dimensions shall be adjusted in accordance with Special Provision 535, Precast, Prestressed Concrete Superstructure - Camber.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
4. The superstructure slab concrete for each stage shall be placed continuously, including both end diaphragms, and shall be kept plastic until the entire placement has been made.
5. End diaphragm concrete will be paid for under Item No. 502.261, Structural Concrete Roadway and Sidewalk Slabs on Concrete Bridges.
6. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb concrete. All reinforcing steel in the Transition Barrier shall be stainless steel.
7. Payment for Seal Material will not be made directly and shall be considered incidental to related contract items.

ELASTOMERIC BEARING NOTES

1. The shear modulus of the elastomer shall be 260 psi.
2. Elastomeric pads shall have a Shore A Durometer hardness of 70 and shall conform to the requirements of the latest edition of Section 18.2 of the AASHTO LRFD Bridge Construction Specifications.
3. Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract items. No separate payment will be made.



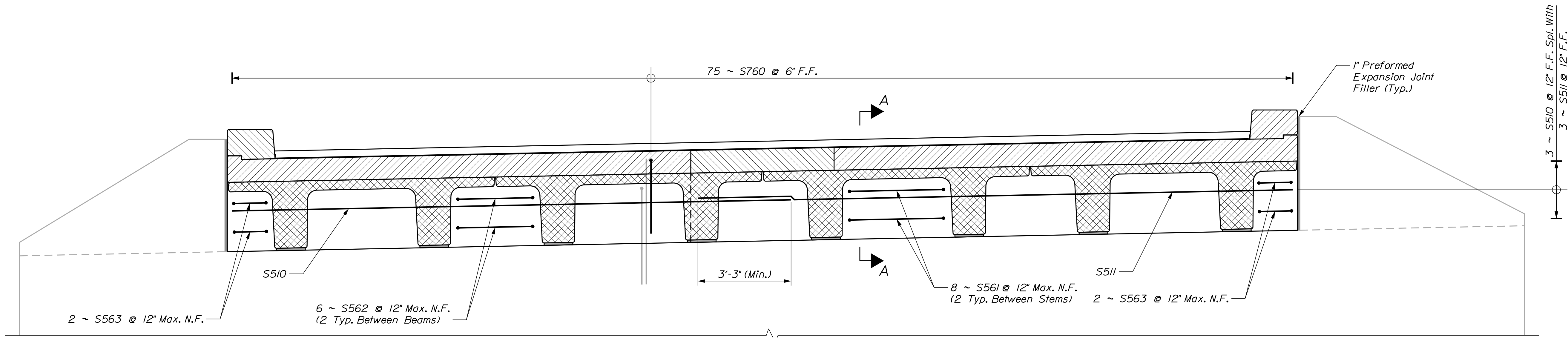
NEXT BEAM GAP FORM DETAIL

Date:12/14/2018

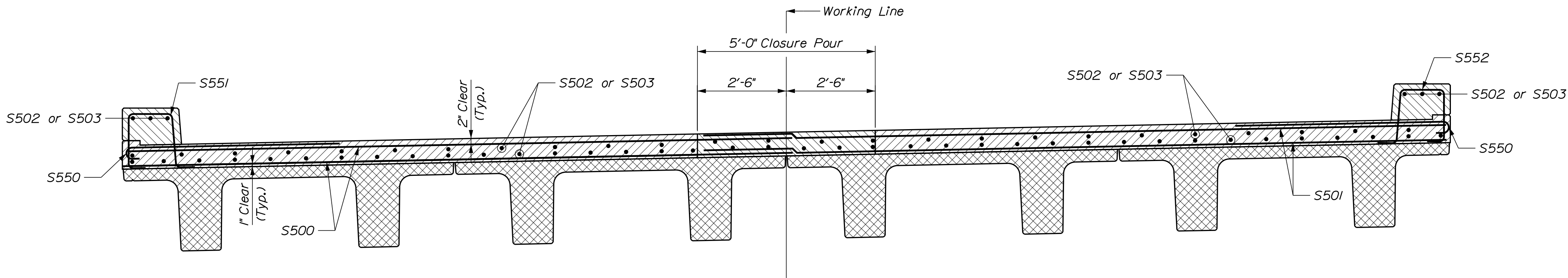
Username: lflanders

Division: BRIDGE

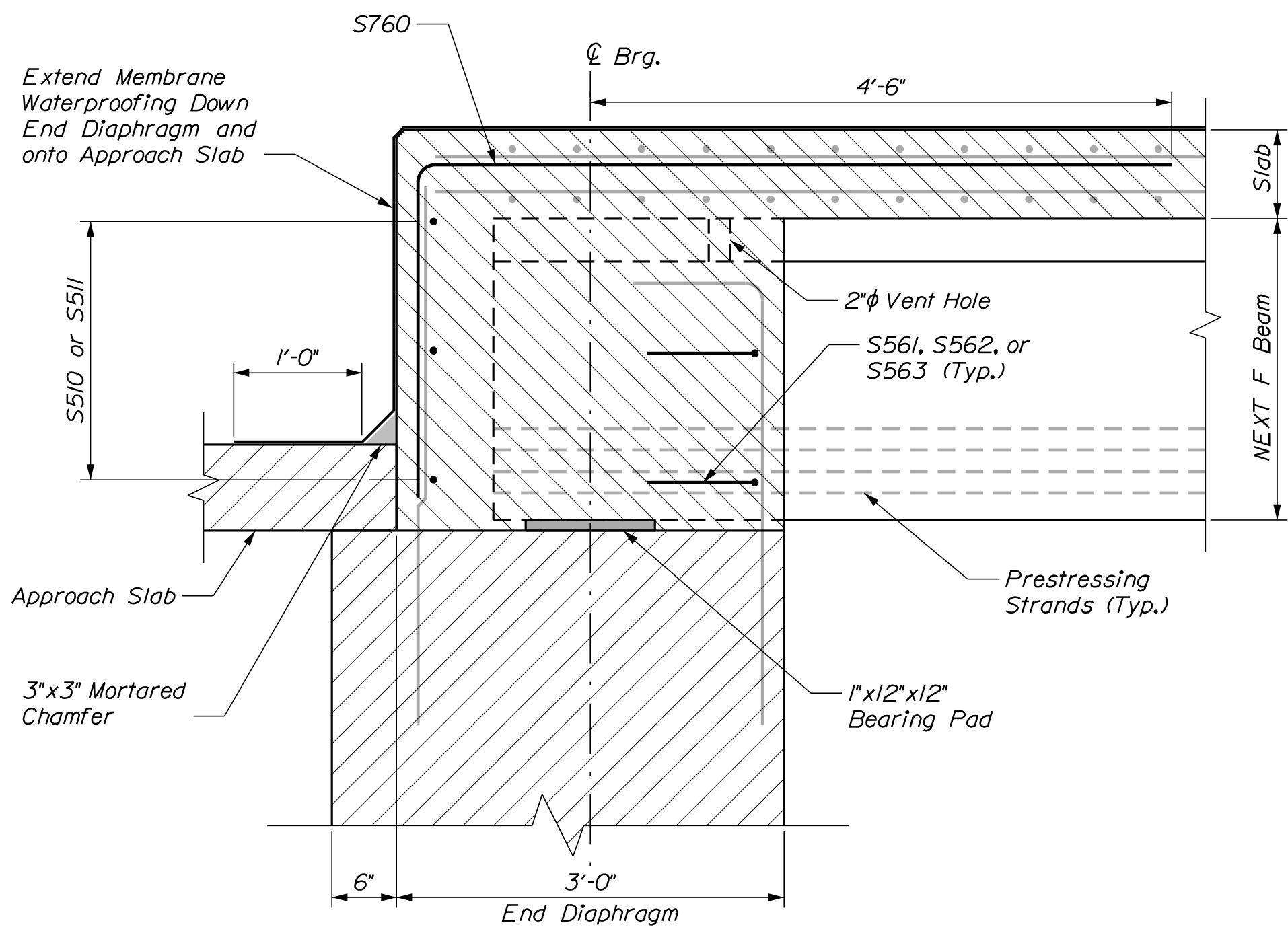
Filename: ... \MSTAA19_Super_Details.dgn



END DIAPHRAGM REINFORCEMENT ELEVATION
Abutment No. 2 End Shown, Abutment No. 1 End Opposite Hand



TYPICAL DECK REINFORCING SECTION



SECTION A-A

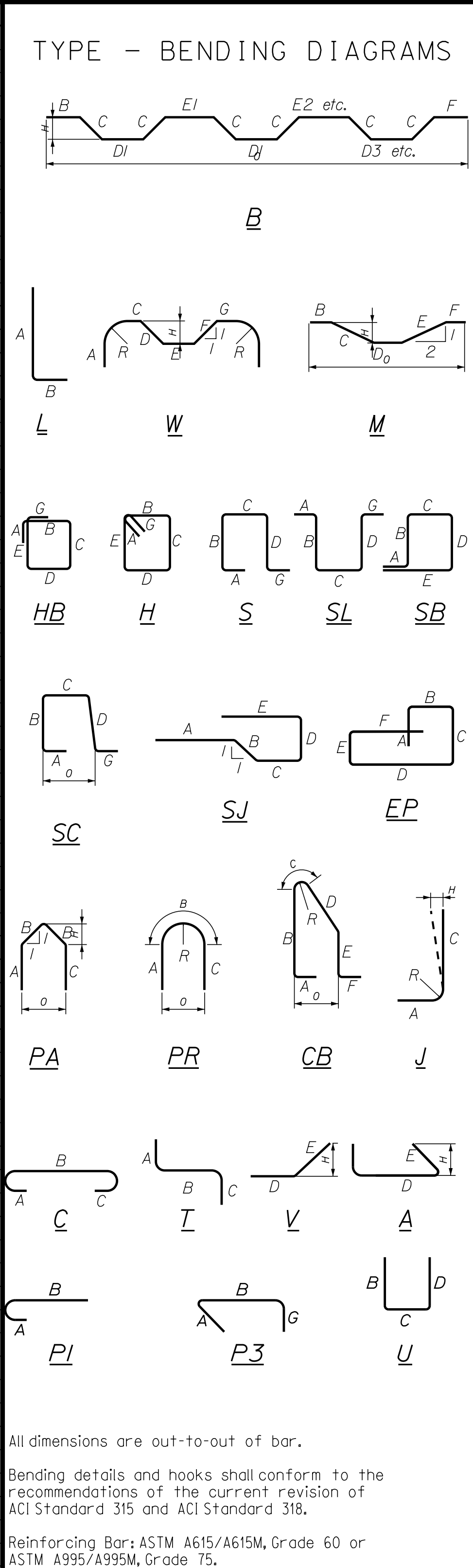
NOTES

1. Payment for Preformed Expansion Joint Filler and mortared chamfer will not be made directly and shall be considered incidental to related Contract Items.



SHORTRIDGE BRIDGE SACO RIVER OVERFLOW FRYEBURG OXFORD COUNTY				PROJ. MANAGER	J. STILWELL	BY	DATE	
SUPERSTRUCTURE DETAILS				DESIGN-DETAILED	S.W.	D.B.	DEC 2018	
				CHECKED-REVIEWED	JCS	S.W.	DEC 2018	
				DESIGN2-DETAILED2	LSF	LSF	DEC 2018	
				DESIGN3-DETAILED3				
				REVISIONS 1				
				REVISIONS 2				
				REVISIONS 3				
				REVISIONS 4				
				FIELD CHANGES				
SHEET NUMBER								
A19								
OF A20								
				STATE OF MAINE DEPARTMENT OF TRANSPORTATION		SIGNATURE		
				STP-2384(900)		P.E. NUMBER		
				BRIDGE NO. 2765		DATE		
				WIN 23849.00				
				BRIDGE PLANS				

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	
Abutment No. 1 (Plain Bars U.N.O.)				Abutment No. 2 (Plain Bars U.N.O.)				Abutment No. 1 (Plain Bars U.N.O.)															
A500*	28	4'-6"	Stem, Vertical N.F.	B500*	28	4'-6"	Stem, Vertical N.F.	A556	38	7'-0"	U		2'-2"	2'-8"	2'-2"								Wingwalls, Verical Top & Bottom
A506	76	6'-6"	Stem, Vertical E.F.	B506	76	6'-4"	Stem, Vertical E.F.	A557	16	4'-4"	U		10"	2'-8"	10"								Wingwalls, Horizontal
A507	2	8'-2"	SW Wingwall, Vertical E.F.	B507	2	6'-8"	NE Wingwall, Vertical E.F.	A558	76	8'-0"	U		2'-5"	3'-2"	2'-5"								Stem, Verical Top & Bottom
A508	2	8'-6"	SW Wingwall, Vertical E.F.	B508	2	7'-2"	NE Wingwall, Vertical E.F.	A559	76	3'-8"	P3	6"	2'-8"				6"						Wingwalls
A509	2	8'-11"	SW Wingwall, Vertical E.F.	B509	2	7'-10"	NE Wingwall, Vertical E.F.	A560	76	4'-2"	P3	6"	3'-2"				6"						Stem
A510	2	9'-3"	SW Wingwall, Vertical E.F.	B510	2	8'-5"	NE Wingwall, Vertical E.F.	A561*	28	4'-5"	L	3'-5"	1'-0"										
A511	2	9'-7"	SW Wingwall, Vertical E.F.	B511	2	9'-0"	NE Wingwall, Vertical E.F.	A562	2	10'-2"	V				1'-0"	9'-2"			3'-1"				SW Wingwall, Top
A512	2	9'-11"	SW Wingwall, Vertical E.F.	B512	2	9'-8"	NE Wingwall, Vertical E.F.	A563	2	7'-7"	V				1'-0"	6'-7"			3'-3"				NW Wingwall, Top
A513	2	10'-4"	SW Wingwall, Vertical E.F.	B513	2	10'-3"	NE Wingwall, Vertical E.F.	A570	36	3'-6"	V				1'-6"	2'-0"			1'-10"				Approach Slab
A514	2	10'-8"	SW Wingwall, Vertical E.F.	B514	2	10'-3"	NE Wingwall, Vertical E.F.																
A515	2	11'-0"	SW Wingwall, Vertical E.F.	B515	2	11'-0"	SE Wingwall, Vertical E.F.	A656	2	12'-6"	L	1'-0"	11'-6"										Wing Bottom Middle
A516	2	11'-3"	SW Wingwall, Vertical E.F.	B516	2	11'-0"	SE Wingwall, Vertical E.F.	A657	4	11'-8"	U		1'-0"	9'-8"	1'-0"								Abutment Bottom Middle
A517	2	11'-3"	SW Wingwall, Vertical E.F.	B517	2	10'-6"	SE Wingwall, Vertical E.F.	A658	4	5'-11"	L	1'-0"	4'-11"										Abutment Bottom Middle
A518	2	10'-5"	NW Wingwall, Vertical E.F.	B518	2	10'-0"	SE Wingwall, Vertical E.F.	A659	2	9'-7"	L	1'-0"	8'-7"										Wing Bottom Middle
A519	2	10'-5"	NW Wingwall, Vertical E.F.	B519	2	9'-6"	SE Wingwall, Vertical E.F.																
A520	2	10'-0"	NW Wingwall, Vertical E.F.	B520	2	9'-0"	SE Wingwall, Vertical E.F.																
A521	2	9'-5"	NW Wingwall, Vertical E.F.	B521	2	8'-6"	SE Wingwall, Vertical E.F.	A757	60	5'-0"	L	3'-10"	1'-2"										Abutment F.F.
A522	2	8'-11"	NW Wingwall, Vertical E.F.	B522	2	7'-11"	SE Wingwall, Vertical E.F.																
A523	2	8'-4"	NW Wingwall, Vertical E.F.	B523	2	7'-8"	SE Wingwall, Vertical E.F.	Abutment No. 2 (Plain Bars U.N.O.)															
A524	2	7'-9"	NW Wingwall, Vertical E.F.					B556	34	7'-0"	U		2'-2"	2'-8"	2'-2"								Wingwalls, Verical Top & Bottom
A525	2	7'-2"	NW Wingwall, Vertical E.F.					B557	16	4'-4"	U		10"	2'-8"	10"								Wingwalls, Horizontal
A526	2	9'-9"	SW Wingwall, Horizontal E.F.	B526	2	6'-11"	NE Wingwall, Horizontal E.F.	B558	76	8'-0"	U		2'-5"	3'-2"	2'-5"								Stem, Verical Top & Bottom
A527	1	9'-6"	SW Wingwall, Horizontal F.F.	B527	1	6'-1"	NE Wingwall, Horizontal F.F.	B559	68	3'-8"	P3	6"	2'-8"				6"						Wingwalls
A528	2	8'-1"	SW Wingwall, Horizontal E.F.	B528	2	5'-4"	NE Wingwall, Horizontal E.F.	B560	76	4'-2"	P3	6"	3'-2"				6"						Stem
A529	1	6'-8"	SW Wingwall, Horizontal F.F.	B529	1	4'-5"	NE Wingwall, Horizontal F.F.	B561*	28	4'-5"	L	3'-5"	1'-0"										
A530	2	5'-3"	SW Wingwall, Horizontal E.F.	B530	2	3'-7"	NE Wingwall, Horizontal E.F.	B562	2	10'-2"	V				1'-0"	9'-2"			3'-1"				SW Wingwall, Top
A531	1	3'-10"	SW Wingwall, Horizontal F.F.	B531	1	2'-10"	NE Wingwall, Horizontal F.F.	B563	2	7'-7"	V				1'-0"	6'-7"			3'-3"				NW Wingwall, Top
A532	2	2'-5"	SW Wingwall, Horizontal E.F.	B532	2	2'-0"	NE Wingwall, Horizontal E.F.	B570	36	3'-6"	V				1'-6"	2'-0"			1'-10"				Approach Slab
A533	2	6'-10"	NW Wingwall, Horizontal E.F.	B533	2	7'-6"	SE Wingwall, Horizontal E.F.																
A534	1	6'-7"	NW Wingwall, Horizontal F.F.	B534	1	6'-10"	SE Wingwall, Horizontal F.F.	B656	2	9'-7"	L	1'-0"	8'-7"										Wing Bottom Middle
A535	2	5'-9"	NW Wingwall, Horizontal E.F.	B535	2	5'-10"	SE Wingwall, Horizontal E.F.	B657	4	11'-8"	U		1'-0"	9'-8"	1'-0"								Abutment Bottom Middle
A536	1	4'-10"	NW Wingwall, Horizontal F.F.	B536	1	4'-10"	SE Wingwall, Horizontal F.F.	B658	4	5'-11"	L	1'-0"	4'-11"										Abutment Bottom Middle
A537	2	3'-11"	NW Wingwall, Horizontal E.F.	B537	2	3'-11"	SE Wingwall, Horizontal E.F.	B659	2	10'-3"	L	1'-0"	9'-3"										Wing Bottom Middle
A538	1	3'-1"	NW Wingwall, Horizontal F.F.	B538	1	2'-11"	SE Wingwall, Horizontal F.F.																
A539	2	2'-2"	NW Wingwall, Horizontal E.F.	B539	2	1'-11"	SE Wingwall, Horizontal E.F.																
								B757	60	5'-0"	L	3'-10"	1'-2"										Abutment F.F.
A606	2	28'-9"	Top & Bottom Mid., Horizontal	B606	2	25'-4"	Top & Bottom Mid., Horizontal																
A607	2	25'-4"	Top & Bottom Mid., Horizontal	B607	2	26'-6"	Top & Bottom Mid., Horizontal																
A707	60	16'-5"	Stem, Horizontal E.F.	B707	60	16'-5"	Stem, Horizontal E.F.																
A708	8	16'-8"	SW Wingwall, Horizontal N.F.	B708	8	13'-9"	NE Wingwall, Horizontal N.F.																
A709	8	13'-9"	NW Wingwall, Horizontal N.F.	B709	8	14'-5"	SE Wingwall, Horizontal N.F.																
A906	15	16'-8"	SW Wingwall, Horizontal F.F.	B906	15	13'-9"	NE Wingwall, Horizontal F.F.																
A907	15	13'-9"	NW Wingwall, Horizontal F.F.	B907	15	14'-5"	SE Wingwall, Horizontal F.F.																
											</												



A20 OF A20		SHEET NUMBER		SHORTRIDGE BRIDGE SACO RIVER OVERFLOW FRYEBURG OXFORD COUNTY		PROJ. MANAGER		J. STILWELL		BY		DATE		STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2384(900)	
						DESIGN-DETAILED		SW		DJB		DEC. 2018			
						CHECKED-REVIEWED		JCS		SW		DEC. 2018			
						DESIGN-DETAILED2		LSF		LSF		DEC. 2018			
						DESIGN-DETAILED3									
REINFORCING STEEL SCHEDULE		REVISIONS 1										P.E. NUMBER		BRIDGE NO. 2765 WIN 23849.00 BRIDGE PLANS	
		REVISIONS 2													
		REVISIONS 3													
		REVISIONS 4								DATE					
		FIELD CHANGES													