

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 (2018) AADT 230
Future (2028) AADT 250
DHV - % of AADT 16%
Design Hour Volume 45
Heavy Trucks (% of AADT) 11%
Heavy Trucks (% of DHV) 11%
Directional Distribution (% of DHV) 80%
18 kip Equivalent P 2.0 11
18 kip Equivalent P 2.5 10
Design Speed (mph) 45

HYDROLOGIC DATA

Drainage Area 39.4 sq mi
Design Discharge (Q50) 2374 cfs
Check Discharge (Q100) 2717 cfs
Headwater Elevation (Q1.1) 373.0 ft
Headwater Elevation (Q25) 377.6 ft
Headwater Elevation (Q50) 378.2 ft
Headwater Elevation (Q100) 378.7 ft
Discharge Velocity (Q1.1) 2.9 fps
Discharge Velocity (Q50) 5.68 fps
Discharge Velocity (Q100) 6.06 fps

MATERIALS

Concrete:
Barriers, Curbs, Sidewalks & Transition Barriers Class "LP"
Precast Class "P"
All Other Class "A"

Reinforcing:
Plain Reinforcing Steel ASTM A615, Grade 60
Stainless Reinforcing Steel ASTM A955, Grade 75
Glass Fiber Reinforcing Polymer (GFRP) CSA S807-10, ACI 440.1R-15
Prestressing Strands AASHTO M 203 (ASTM A416)
Grade 270, Low Relaxation

Structural Steel:
All Material (except as noted) ASTM A709, Grade 50
High Strength Bolts ASTM F3125, Grade A325

BASIC DESIGN STRESSES

Concrete f 'c = 4000 psi
Precast Concrete f 'c = 8000 psi
..... f 'ci = 6500 psi

Reinforcing:
Plain Reinforcing Steel f y = 60,000 psi
Stainless Reinforcing Steel f y = 75,000 psi
Glass Fiber Reinforced Polymer
#6 Bar f fu = 100,000 psi
Minimum Elastic Modulus E f = 6,150,000 psi
Minimum Nominal Design Tensile Strain ε fu = 1.226%
Prestressing Strand fpu = 270,000 psi

Steel H-Piles F y = 50,000 psi

WILLIMANTIC
PISCATAQUIS COUNTY
GOODELL BRIDGE
OVER
DAVIS BROOK
ELLIOTSVILLE ROAD
FEDERAL AID PROJECT NO. STP-2262(400)
PROJECT LENGTH 0.052 mi.
BRIDGE NO. 2317

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UTILITIES

Central Maine Power Company
Fairpoint Communications - Northern New England Telephone Operations LLC

MAINTENANCE OF TRAFFIC

Road closure with detour

PROJECT LOCATION	On Elliotsville Road, 175 feet north of the intersection with Sebec Lake Road / State Route 150. Lat./Long. 45°16'59.1" N 69°25'32.6" W
PROGRAM AREA	Highway Bridge - Traditional
OUTLINE OF WORK	Bridge replacement

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER: <i>[Signature]</i>	12/17/18
	CHIEF ENGINEER: <i>[Signature]</i>	12-17-18

<i>[Signature]</i> SIGNATURE	14372	P.E. NUMBER	11 December 2018	DATE

PROJECT INFORMATION	BRIDGE	JASON STETSON	AWMED SHIKARA		
PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR

WILLIMANTIC GOODELL BRIDGE	TITLE SHEET
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SHEET NUMBER
1
OF 21

WIN 022624.00

STP-2262(400)

Date:12/10/2018

Username: David.Shaw

Division: BRIDGE

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

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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, shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underdrain Backfill.
7. Construct the riprap shelf at EL. 378.0 for Abutment No. 1 and EL. 377.5 for Abutment No. 2.
8. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
9. 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.
10. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
11. A Low Volume Guardrail End shall be installed concurrently with the placement of each section of beam guardrail.
12. 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.
13. Protective Coating for Concrete Surfaces shall be applied to the following areas:
 - All exposed surfaces of concrete curbs and sidewalks,
 - Fascias down to the drip notch,
 - All exposed surfaces of Concrete Transition Barriers,
 - Concrete wearing surfaces,
 - Top of abutment backwalls and to one foot below the top of backwalls on the back side.
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 report of the bridge site may be accessed at the MaineDOT web address. The hydrologic report is based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.
17. The project geotechnical report titled: Geotechnical Design Report for the

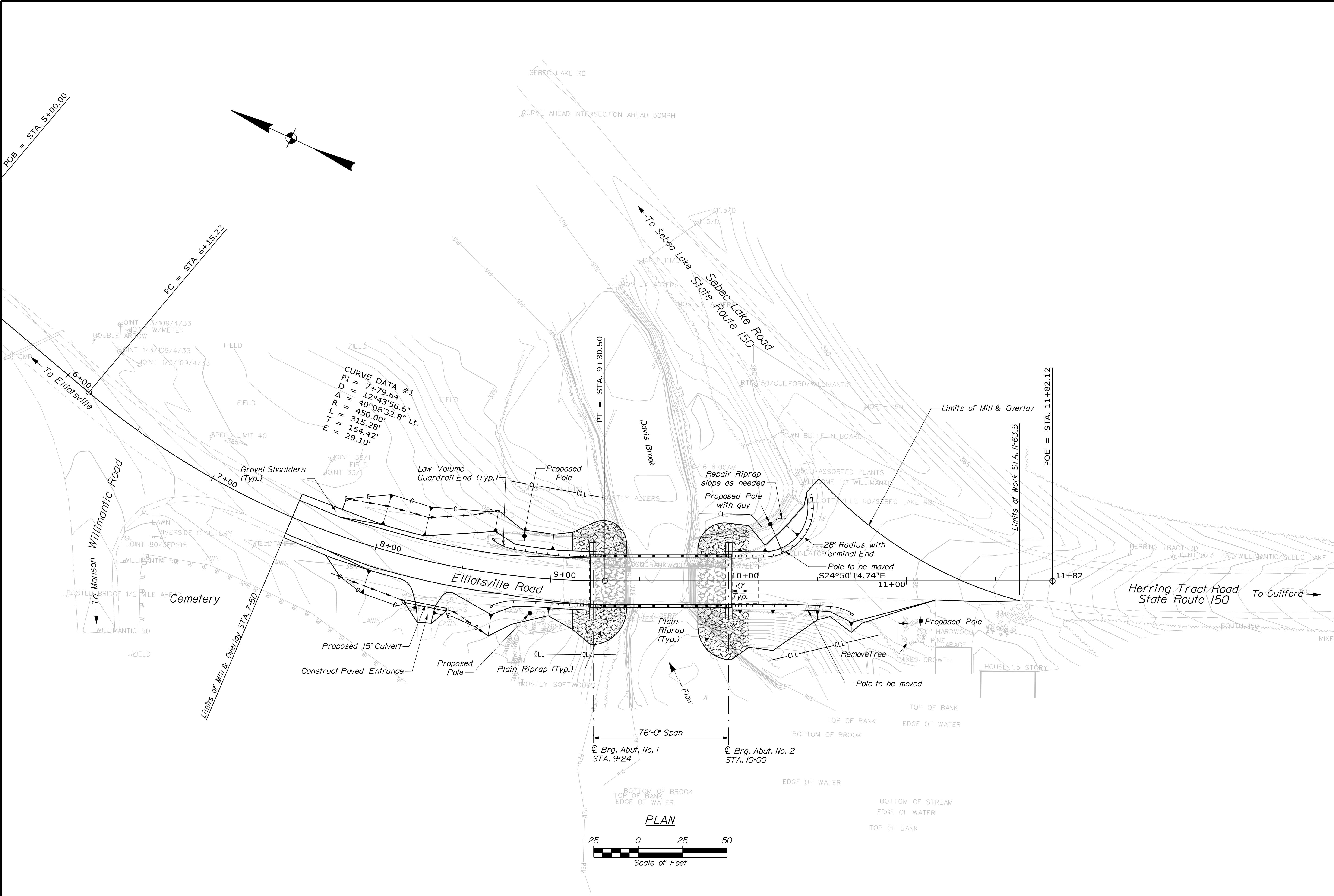
19. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final 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.

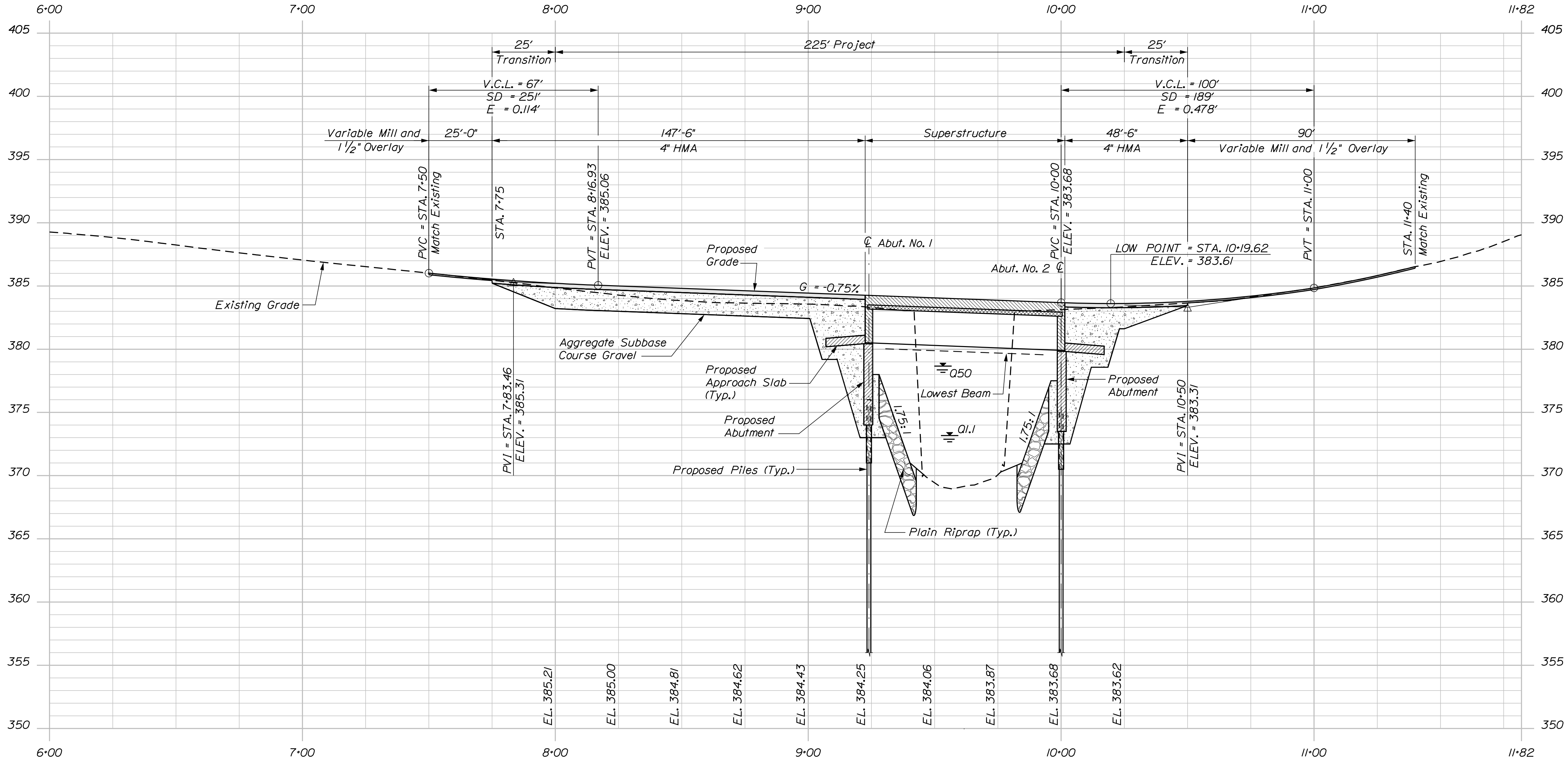
20. The existing bridge shall be removed by and become the property of the Contractor. The steel portions of the existing bridge may be coated with a lead-based paint system. The Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by the process of 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.

21. The Contractor shall grade Wilson Stream Road after construction or as directed by the resident. This work shall be paid for using appropriate equipment rental and hourly labor Contract Items.

SHEET NUMBER 2 OF 21	GOODELL BRIDGE DAVIS BROOK WILLIMANTIC PISCATAQUIS COUNTY				PROJ. MANAGER	J. STETSON	BY	DATE
	ESTIMATED QUANTITIES AND GENERAL CONSTRUCTION NOTES				DESIGN-DETAILED	A. SHKARA	D. SHAW	DEC. 2018
					CHECKED-REVIEWED	J. STETSON	J. HASBROUCK	DEC. 2018
					DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	MAR. 2017
					DESIGN3-DETAILED3			
					P.E. NUMBER			
					REVISIONS 1			
					REVISIONS 2			
					REVISIONS 3			
					REVISIONS 4			
				FIELD CHANGES				
STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2262(400) BRIDGE NO. 2317 WIN 022624.00 BRIDGE PLANS								



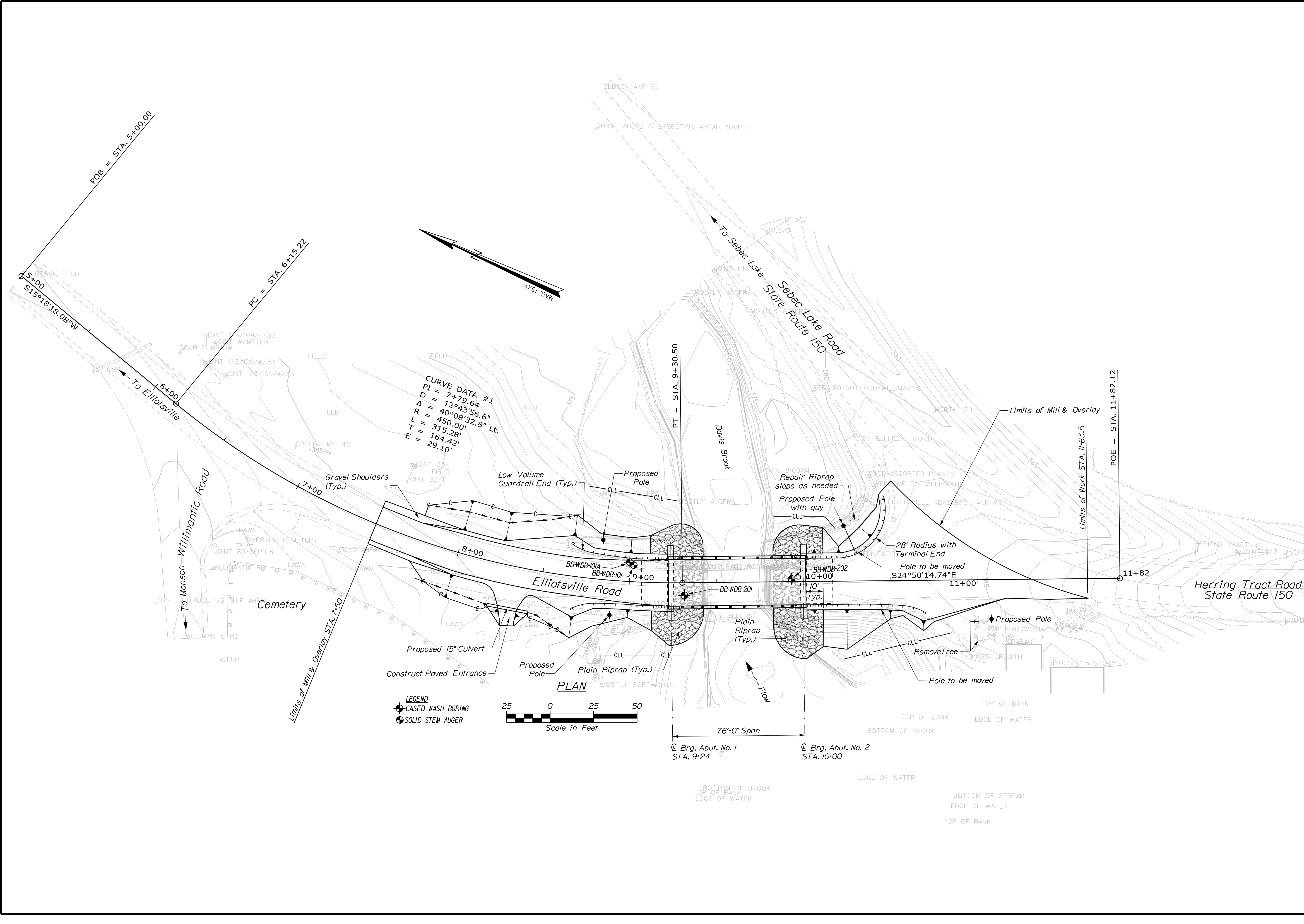
STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2262(400)	PROJ. MANAGER J. STETSON DESIGN-DETAILED A. SHKARA CHECKED-REVIEWED J. HASBROUK DESIGNS-DETAILED B. SLAVEN DESIGNS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES				DATE DEC. 2018 DEC. 2018 MAR. 2017	BY D. SHAW T. WHITE	DATE DEC. 2018 DEC. 2018 MAR. 2017	SIGNATURE
	GOODELL BRIDGE DAVIS BROOK WILLIMANTIC PISCATAQUIS COUNTY				P.E. NUMBER			
	SHEET NUMBER 3				DATE			
BRIDGE NO. 2317 WIN 022624.00				BRIDGE PLANS				



PROFILE

PROJ. MANAGER	J. STEVSON	BY	DATE
CHECKED-REVIEWED	A. SHAW	D. SHAW	DEC. 2018
DESIGNED-DETAILED	B. SLAVEN	T. WHITE	MAR. 2017
DESIGNS 1			
DESIGNS 2			
DESIGNS 3			
DESIGNS 4			
FIELD CHANGES			

GOODELL BRIDGE DAVIS BROOK PISCATAQUIS COUNTY	SIGNATURE
WILLIMANTIC	P.E. NUMBER
PROFILE	DATE



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2262(400)

BRIDGE NO. 2317
WIN
022624.00

BRIDGE PLANS

GOODELL BRIDGE
DAVIS BROOK
WILLIMANTIC PISCATAQUIS COUNTY

DATE
DEC 2018
DEC 2018
MAR 2017

BY
D. SHAW
J. HASBROUCK
T. WHITE

SIGNATURE

P.E. NUMBER

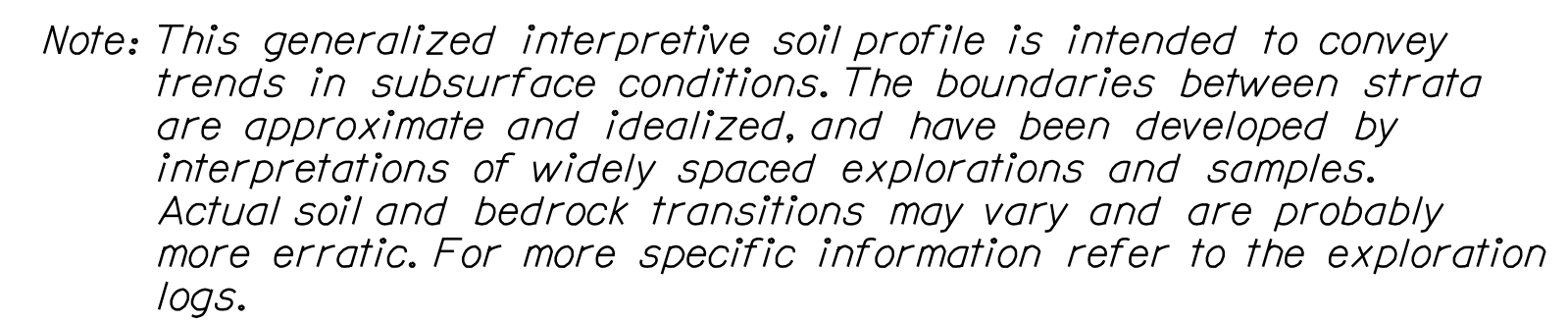
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SHEET NUMBER

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OF 21

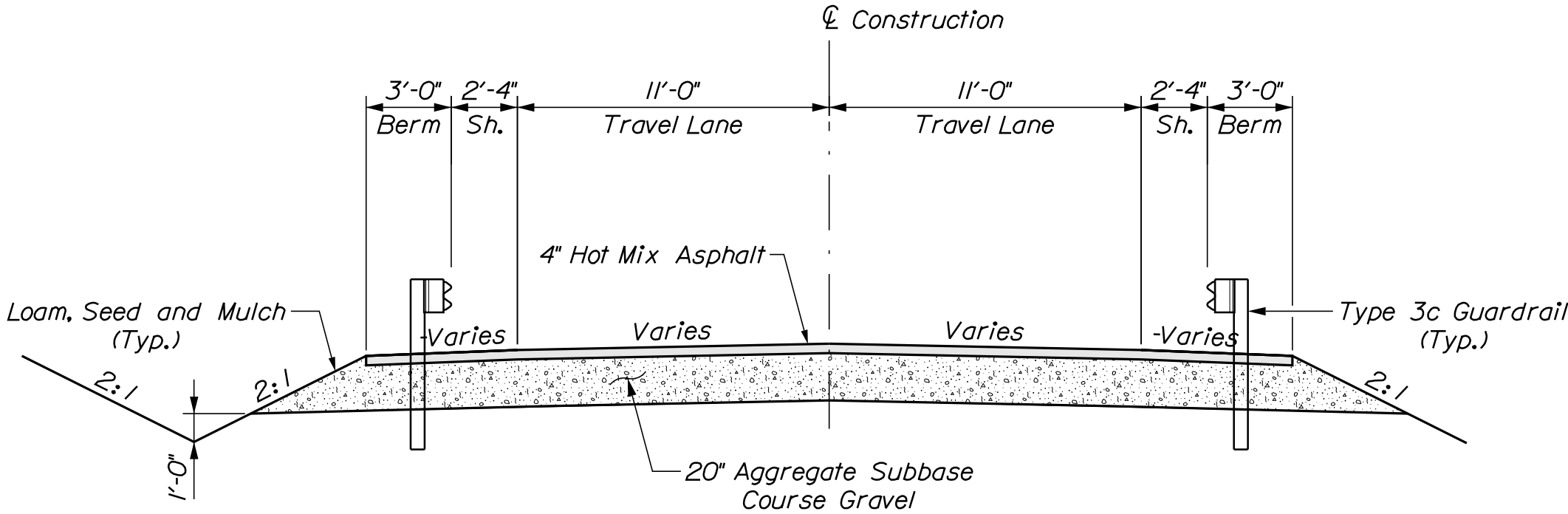
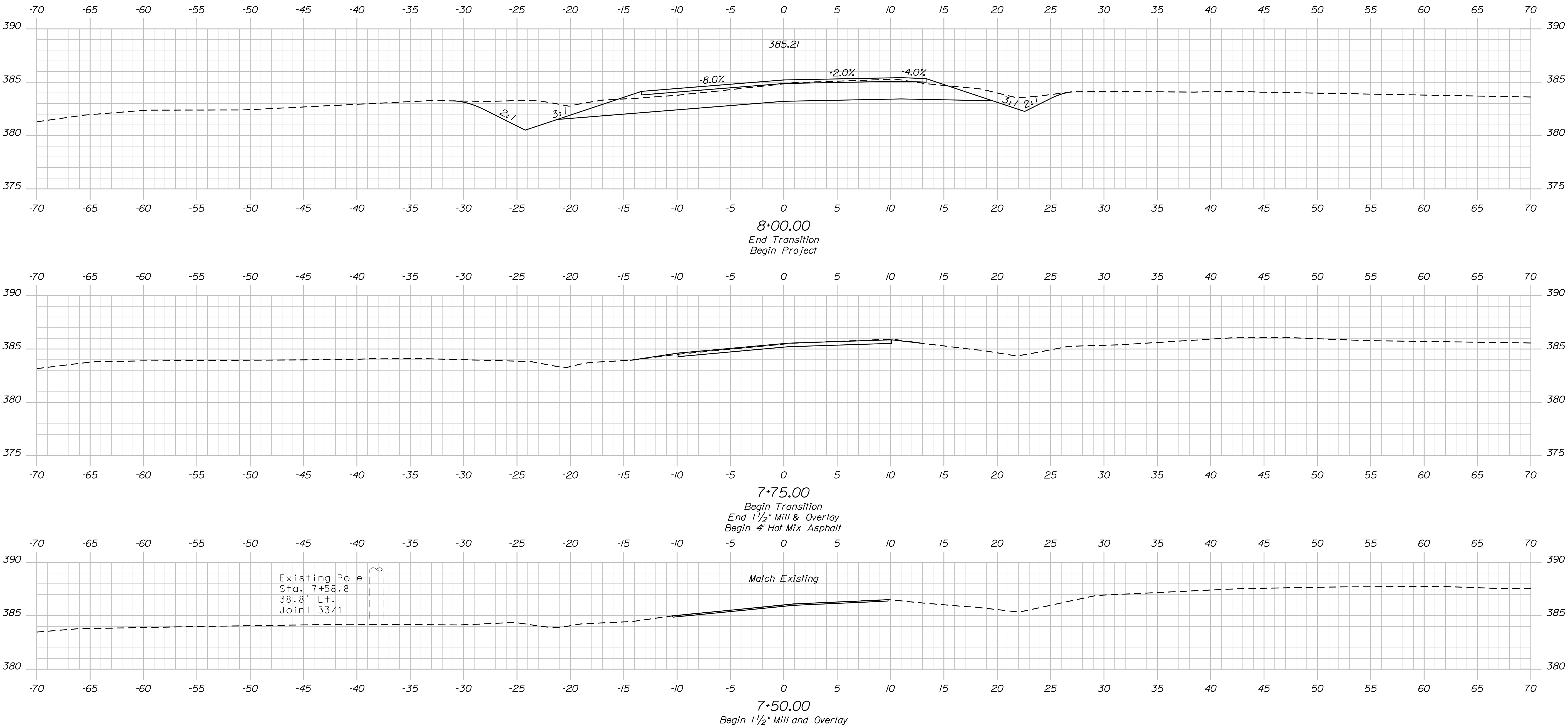
BORING LOCATION PLAN



Maine Department of Transportation				Project: Gopaki Bridge #2311 carries Ellisville Road over Davis Location: Williamsport, Maine		Boring No.: BB-WDB-101A	
Soil/Rock Exploration Log US CUSTOMARY UNITS				WIN: 252624.00			
Drillers: NERC		Elevation (ft.): 383.2		Auger ID/OD: 4" / OD 55A			
Operator: Enos		Datum: NAVD88		Samplers: Standard Split Spoon			
Logged By: B. Slaven		Rig type: B-53 Track Mounted		Hammer Wt./Fall: 140#/30"			
Date Start/Finish: 2/21/2017-2/22/2017		Drilling Method: Cased Wash Boring		Core Barrel: NO-2"			
Boring Location: 8+99.6, 11.0 ft L.T.		Casing ID/OD: NH-3"		Water Level: None Observed			
Hammer Efficiency Factor: 0.6				Hammer Type: Automatic ☐ Hydraulic ☐ Rock & Cathod ☐			
Definitions: B = Rock Core Sample SA = Solid Steel Auger HSA = Heavy Steel Auger U = Thin Wall Tube Sample M = Unconsolidated Thin Wall Tube Sample V = Field Vane Shear Test PP = Pocket Penetrometer MDW = Weight of Rods or Casing M = Unconsolidated Thin Wall Tube Sample WT = Weight of Wet Rods				Notes: 1. Rock Penetration Test (RPT) - Rock Strength Test 2. Water Content, percent 3. Liquid Limit 4. Plastic Limit 5. Plasticity Index 6. Expansion Test 7. Rock Mass Quality = Very Poor 8. Core Times (minutes) 9. Rock Mass Quality = Very Poor 10. Core Times (minutes) 11. Rock Mass Quality = Very Poor 12. Core Times (minutes) 13. Rock Mass Quality = Very Poor 14. Core Times (minutes) 15. Rock Mass Quality = Very Poor 16. Core Times (minutes) 17. Rock Mass Quality = Very Poor 18. Core Times (minutes) 19. Rock Mass Quality = Very Poor 20. Core Times (minutes) 21. Rock Mass Quality = Very Poor 22. Core Times (minutes) 23. Rock Mass Quality = Very Poor 24. Core Times (minutes) 25. 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Maine Department of Transportation				Project: Goodwill Bridge #2017 carries Elliottville Road over Davis Location: Willimantic, Maine		Boring No.: BB-WOB-101							
Soil/Rock Exploration Log US CUSTOMARY UNITS						WIN: 22624.00							
Drillers: NEBC		Elevation (ft.): 383.4		Auger ID/OD: 4" OD									
Operator: Enos		Datum: NAVD83		Sampler: Standard Split Spoon									
Logged By: B. Sivas		Rig Type: B-53 Truck Mounted		Hammer Wt./Fall: 140#/30"									
Date Start/Finish: 2/21/2017: 13:00-14:30		Drilling Method: Solid Stem Auger		Core Barrel: N/A									
Boring Location: 9+02.1, 9.4 ft Lr.		Casing ID/OD: N/A		Water Level: None Observed									
Hammer Efficiency Factor: 0.6				Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathode ☒									
Definitions: G = Split Spoon Sample U = Unconsolidated Split Spoon Sample Attempt W = Unconsolidated Well Take Sample Attempt P = Failed Free Shear Test M = Unconsolidated Field Vane Shear Test Attempt				R = Rock Core Sample SA = Solid Stem Auger BC = Baller Cone MW = Weight of 140lb. Hammer APC = Weight of Rod or Casing WT = Weight of Dry Pan H = Hammer Efficiency Factor SS = Uncorrected T _s = Peak Measured Free Face Shear Strength (psf) T _c = Corrected Shear Strength (psf) U _c = Water Content, percent LC = Liquid Limit PL = Plasticity Limit PI = Plasticity Index G _s = Grain Size Analysis C = Consolidation Test									
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Sample Information		Moisture +/- 1% (w/w) or ASD (%)	Uncorrected	No	Casing Blows	Elevation (ft.)	Grain Log	Visual Description and Remarks	Laboratory Testing Results/ASHTO and Unified Class
				Vanes +/- 16 lb. (lb./sq. ft.)	Shear (lb./sq. ft.)								
0													
5	1D	5.00 ± 0.25	50(3")	----						378.2		Frost Depth 1.5 ft bgs. Possible Boulder from 4.0-5.0 ft bgs. Brown, dry, SAND, little gravel, trace silt and Grey, dry, rock flour. Bottom of Exploration at 5.3 feet below ground surface. AUGER REFUSAL on probable cobble or boulder, moved to BB-WOB-101L.	
10													
15													
20													
25													
Remarks:													
Stratification lines represent approximate boundaries between soil type transitions may be gradual.													
* water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.													
												Page 1 of 1	
												Boring No.: BB-WOB-101	

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PROPOSED TYPICAL APPROACH SECTION

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
STP-2262(400)		SIGNATURE	
WIN		P.E. NUMBER	
022624.00		DATE	
BRIDGE NO. 2317		BRIDGE PLANS	

PROJ. MANAGER	J. STEVENS	BY	D. SHAW	DATE	DEC. 2018
DESIGN-DETAILED	A. SHAW	CHECKED-REVIEWED	J. HASBROOK	TEAM NORTH	DEC. 2018
DESIGN-DETAILED	B. SLAVEN	DESIGN-DETAILED	T. WHITE	DATE	MAR. 2017
REVISIONS 1		REVISIONS 1			
REVISIONS 2		REVISIONS 2			
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES		FIELD CHANGES			

GOODSELL BRIDGE	DAVIS BROOK	PISCATAQUIS COUNTY
WILLIMANTIC		
CROSS SECTIONS		

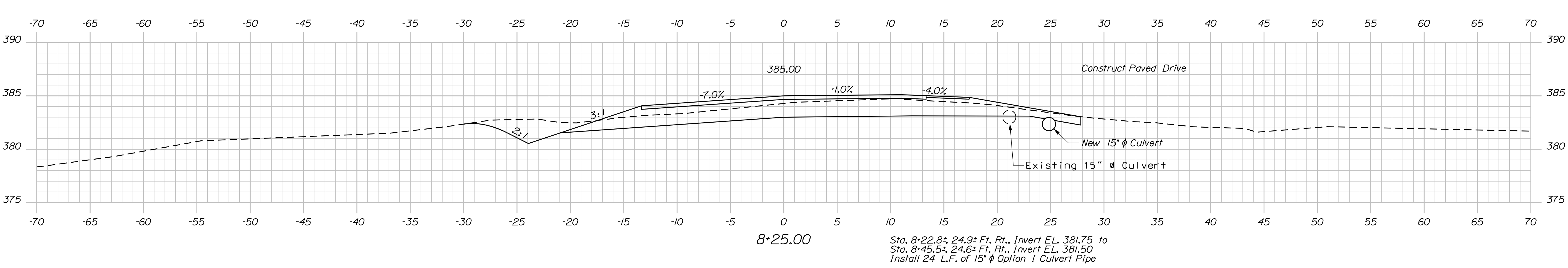
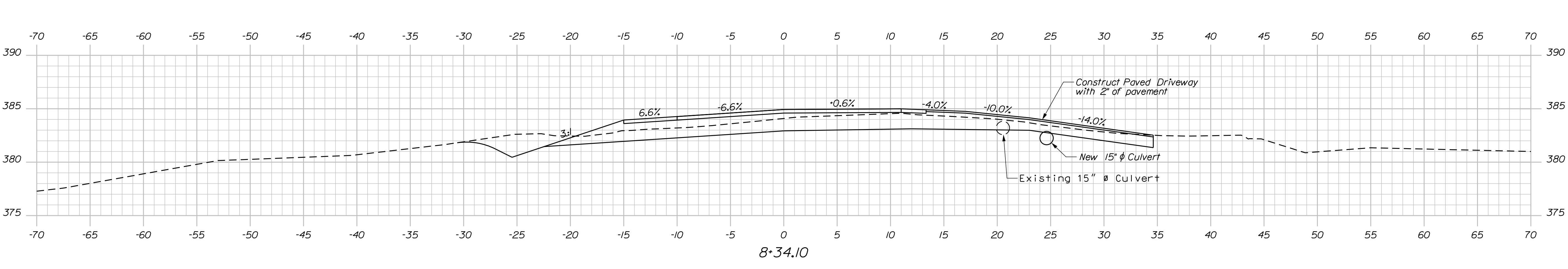
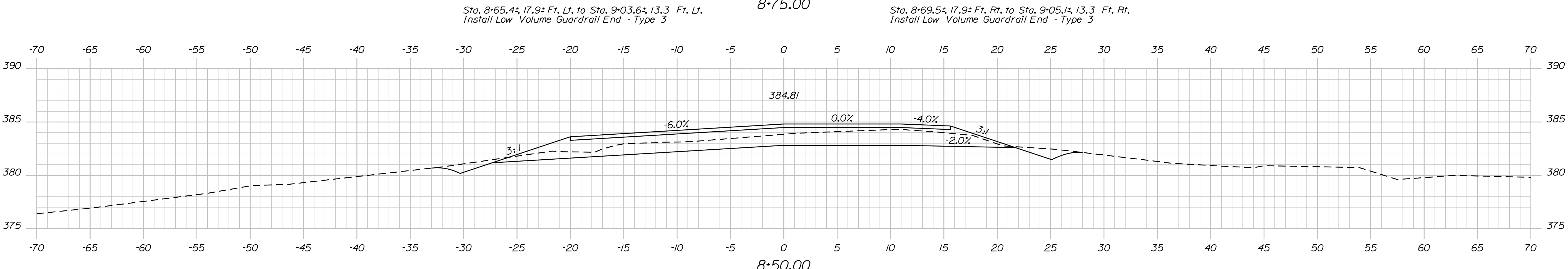
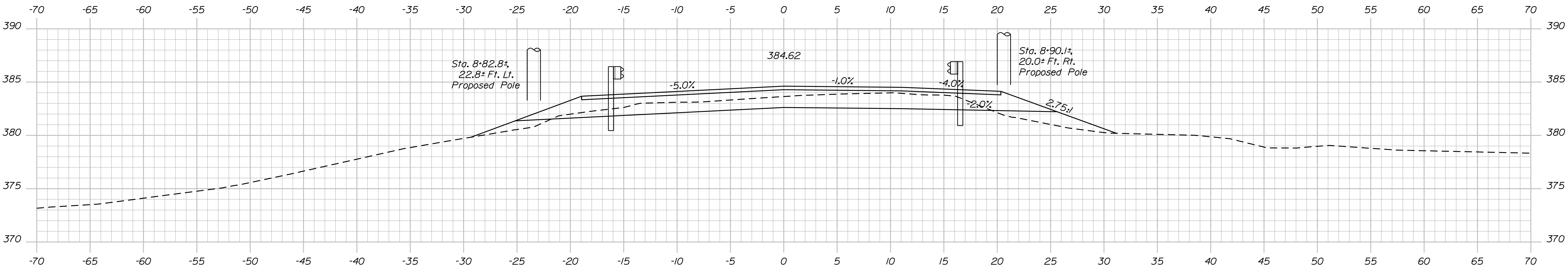
SHEET NUMBER
8
OF 21

Date:12/11/2018

Username: David.Shaw

Division: BRIDGE

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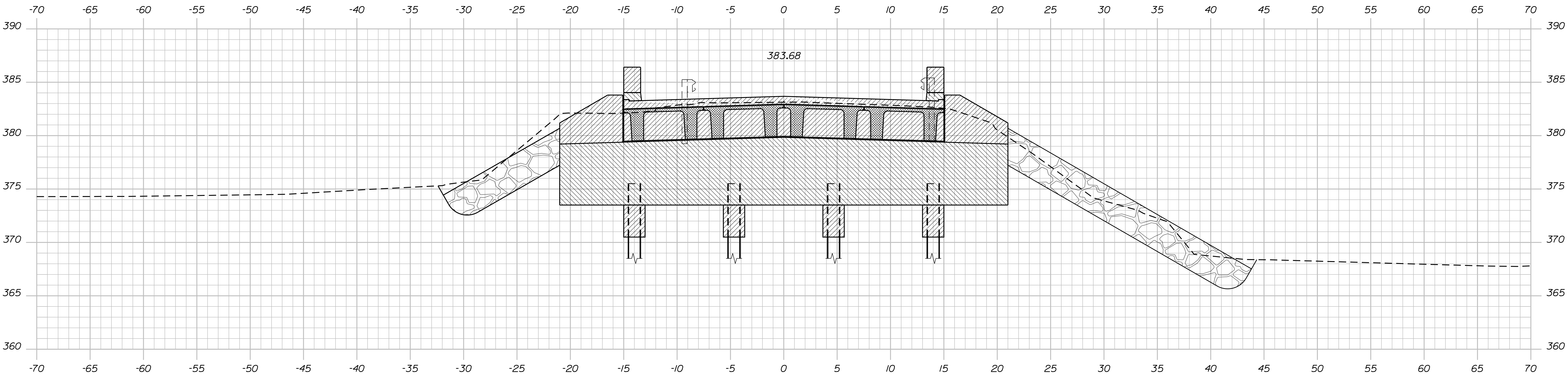
PROJ. MANAGER	J. STETSON	BY	D. SHAW	DATE	DEC. 2018
CHECKED-REVIEWED	A. SHAW	TEAM	NORTH	DATE	DEC. 2018
DESIGNED-DETAILED	B. SLAVEN	T. WHITE		DATE	MAR. 2017
DESIGNED-DETAILED				DATE	
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REVISIONS 3				DATE	
REVISIONS 4				DATE	
FIELD CHANGES				DATE	

Date:12/11/2018

Username: David.Shaw

Division: BRIDGE

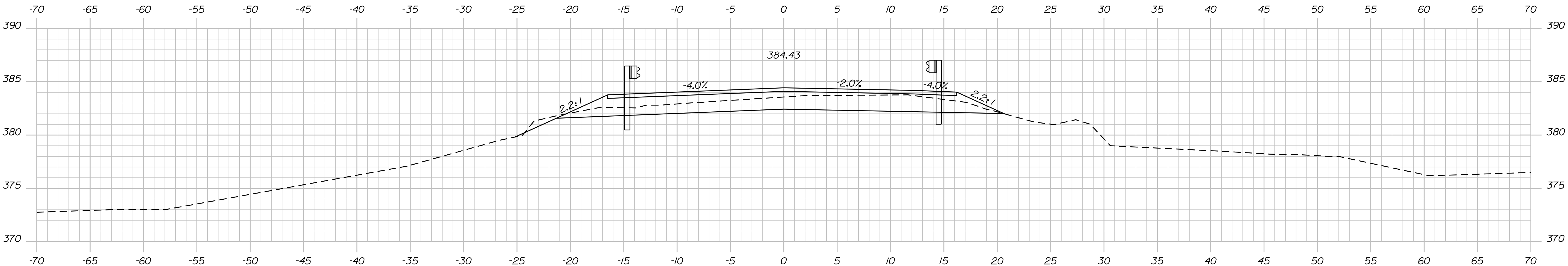
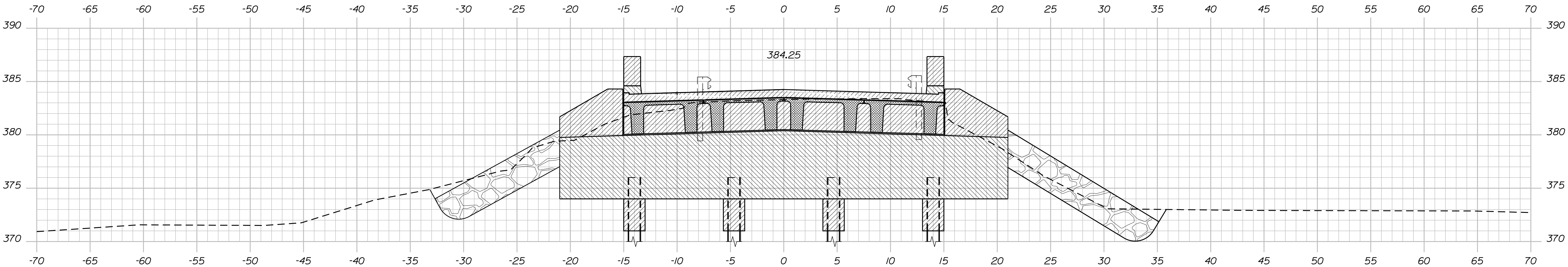
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Bridge to Sta. 10+19.7± 13.3 Ft. Lt.
Install Bridge Transition Type I

Bridge to Sta. 10+19.7± 13.3 Ft. Rt.
Install Bridge Transition Type I

BRIDGE



Sta. 9+03.6± 13.3 Ft. Lt. to Bridge
Install Bridge Transition Type I

Sta. 9+05.1± 13.3 Ft. Rt. to Bridge
Install Bridge Transition Type I

9+00.00

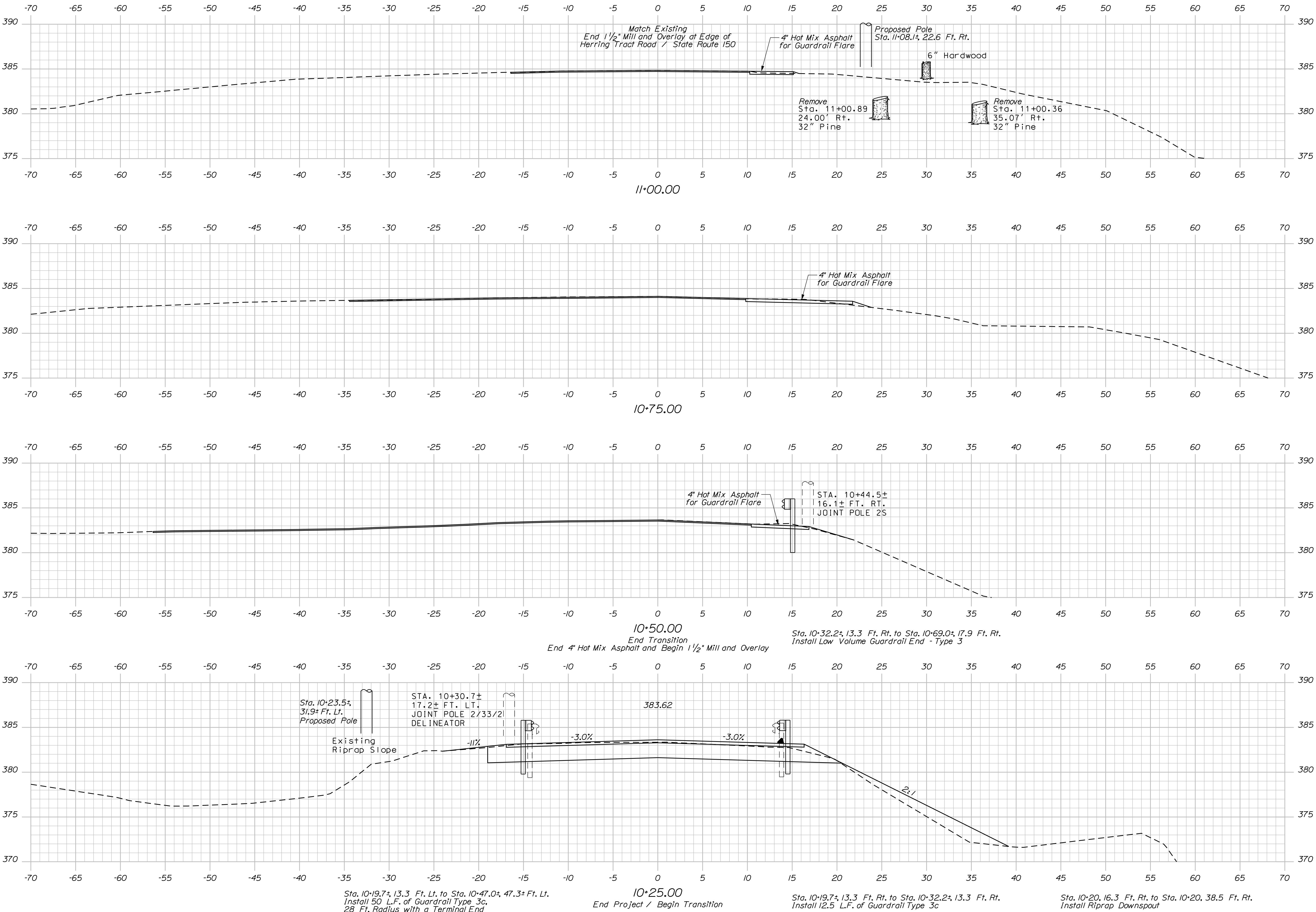
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		STP-2262(400)		BRIDGE NO. 2317		WIN		022624.00		BRIDGE PLANS	
GOODELL BRIDGE		DAVIS BROOK		PISCATAQUIS COUNTY		CROSS SECTIONS		SHEET NUMBER		10		OF 21	
PROJ. MANAGER	J. STETSON	BY	D. SHAW	DATE	DEC. 2018	SIGNATURE		P.E. NUMBER		DATE			
CHECKED-REVIEWED	A. SHAW	CHECKED-REVIEWED	TEAM NORTH	DATE	DEC. 2018								
DESIGN-DETAILED	B. SLAVEN	DESIGN-DETAILED	T. WHITE	DATE	MAR. 2017								
REVISIONS 1		REVISIONS 1											
REVISIONS 2		REVISIONS 2											
REVISIONS 3		REVISIONS 3											
REVISIONS 4		REVISIONS 4											
FIELD CHANGES		FIELD CHANGES											

Date:12/11/2018

Username: David.Shaw

Division: BRIDGE

Filename: ... \MSTA\01_XSECT_10+25-11+00.dgn



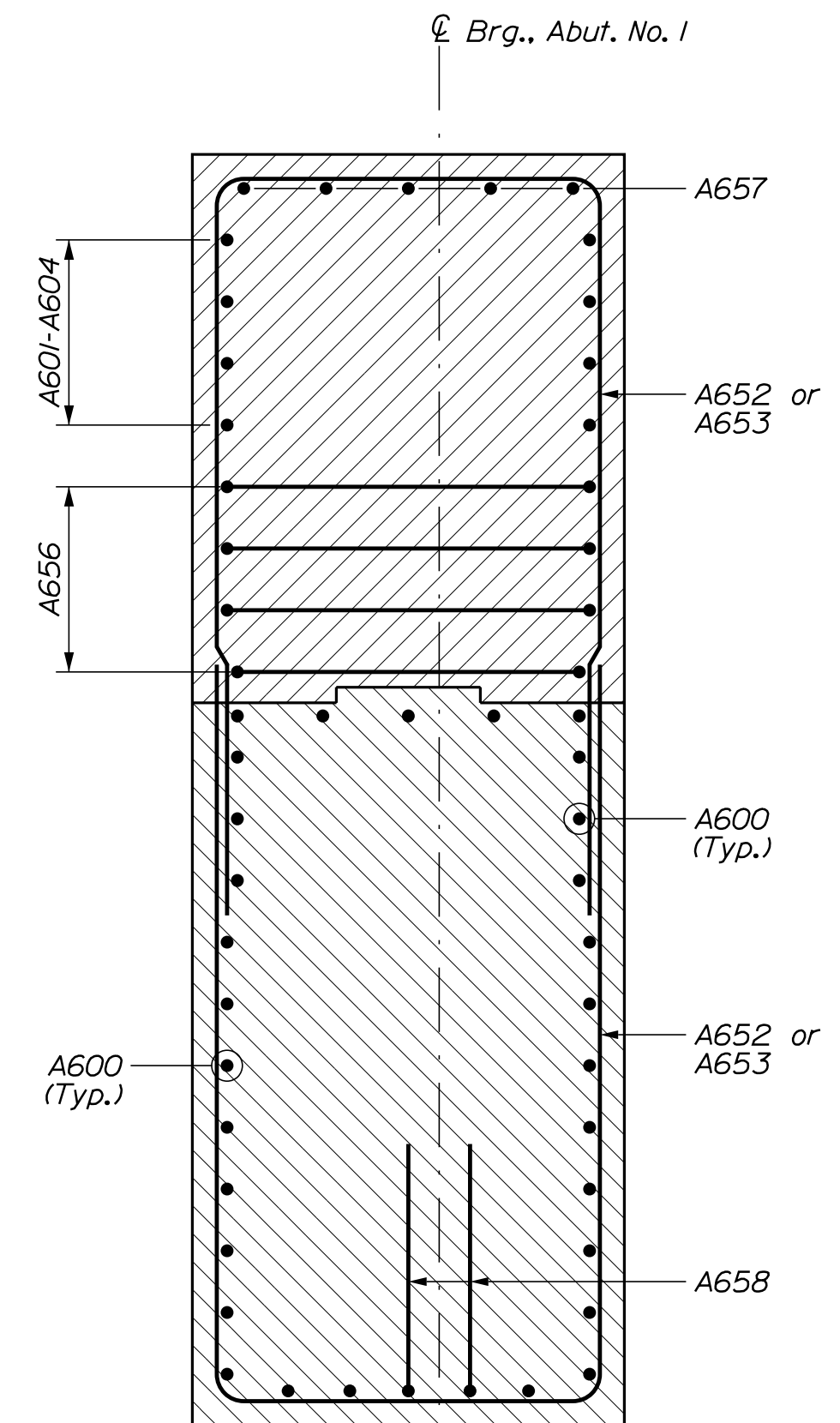
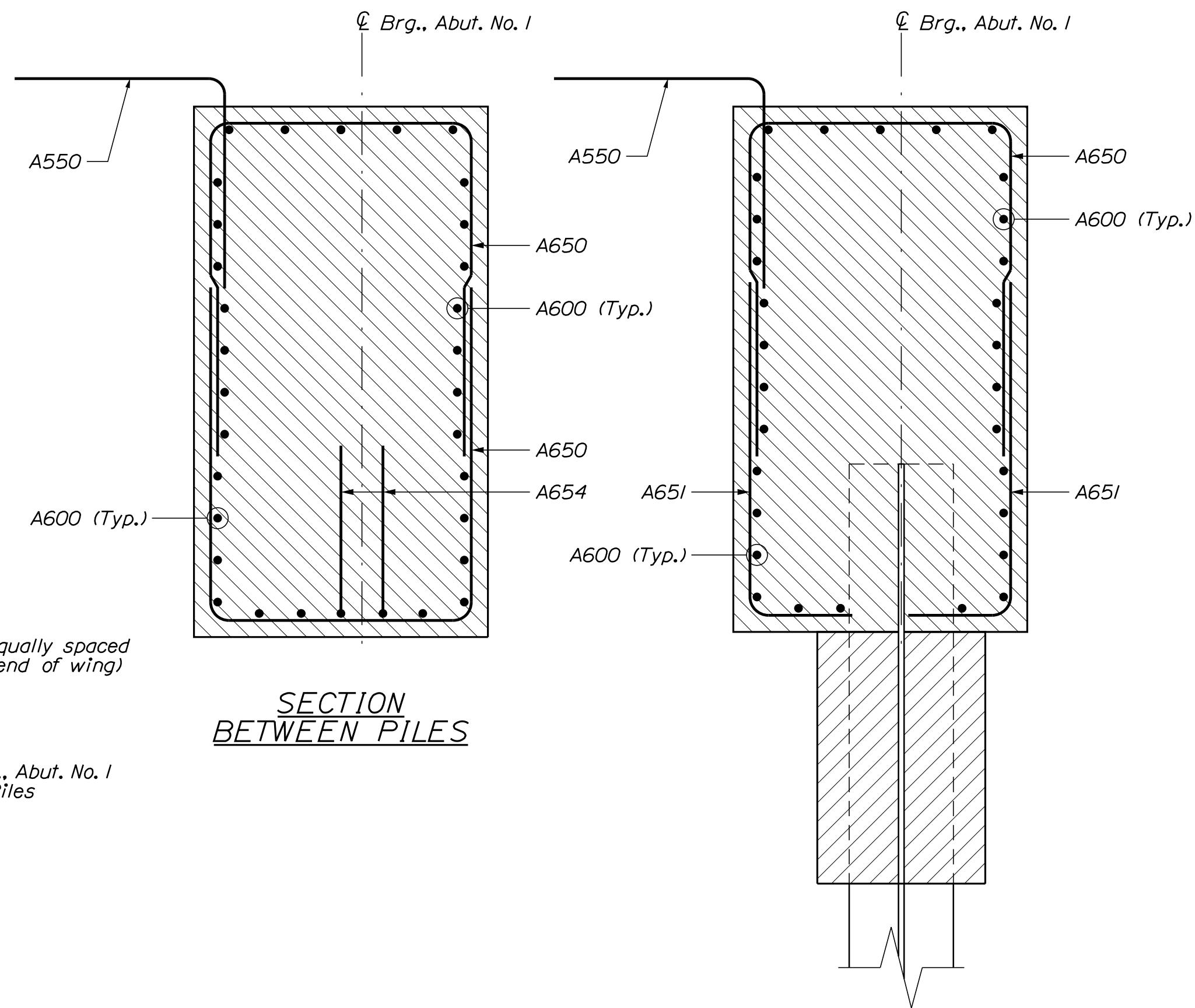
PROJ. MANAGER	J. STETSON	BY	D. SHAW	DATE	DEC 2018
CHECKED-DETAILED	A. SHARA	TEAM NORTH	DEC 2018	SIGNATURE	
DESIGN-DETAILED	B. SLAVEN	T. WHITE	MAR 2017	P.E. NUMBER	
REVISIONS 1				DATE	
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					



1. The maximum factored pile load is 340 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 14x17 @ 27 feet
Abutment No. 2: 4 ~ HP 14x17 @ 27 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 or into bedrock in accordance with Standard Specifications Section 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 F_y . 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 test(s) with 24 hour (min.) restrike tests to confirm the ultimate capacity of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. Each 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 a final driving criteria.
9. Pre-drill to elevation 349.0 ft in accordance with the special provision 501 - Pre-drilling Holes for Piles.
10. The minimum pile tip elevation is 349.0.

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
2. Place the parapet portions of the wingwalls after erection of the precast units to ensure an accurate match with the superstructure.
3. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
4. 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.
5. 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. Payment for excavation necessary to construct the concrete jackets will be considered incidental to Contract Items.

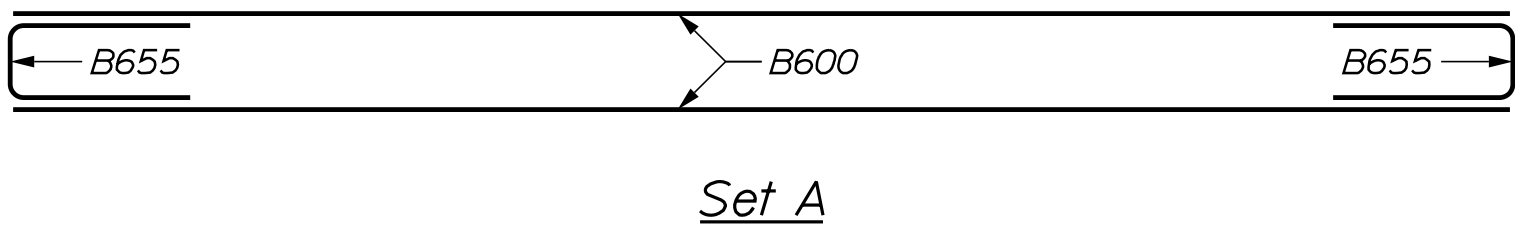
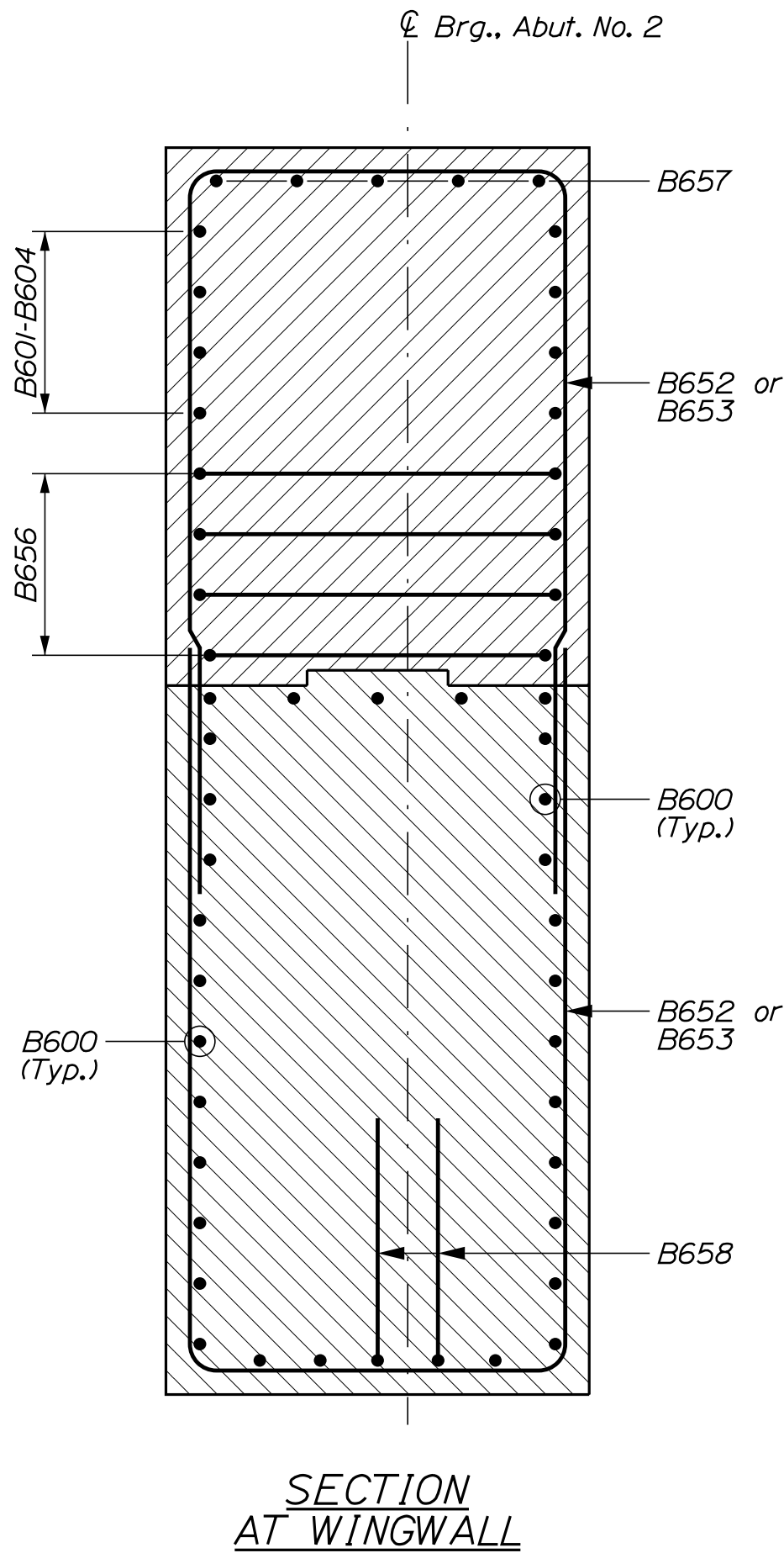
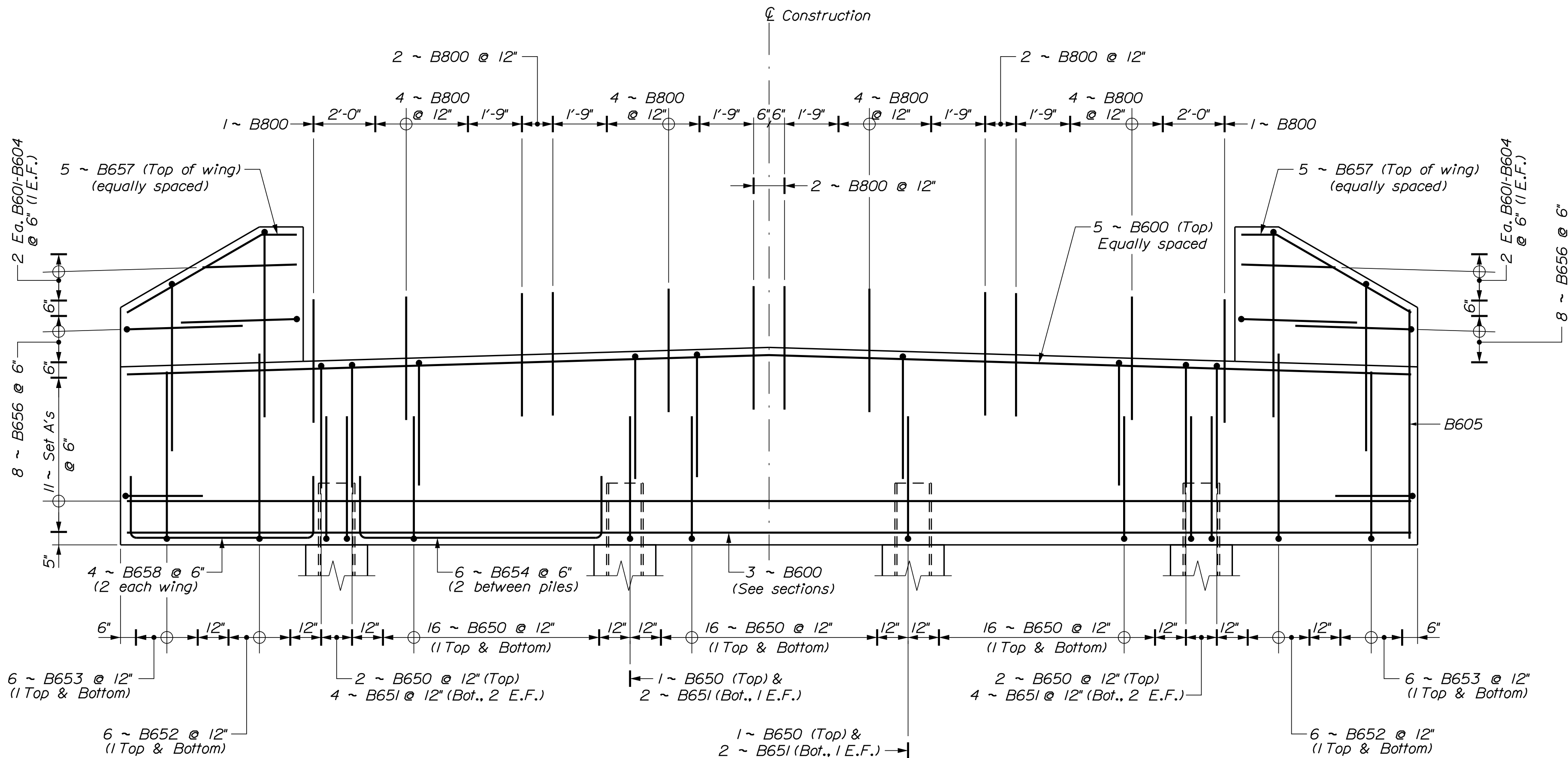
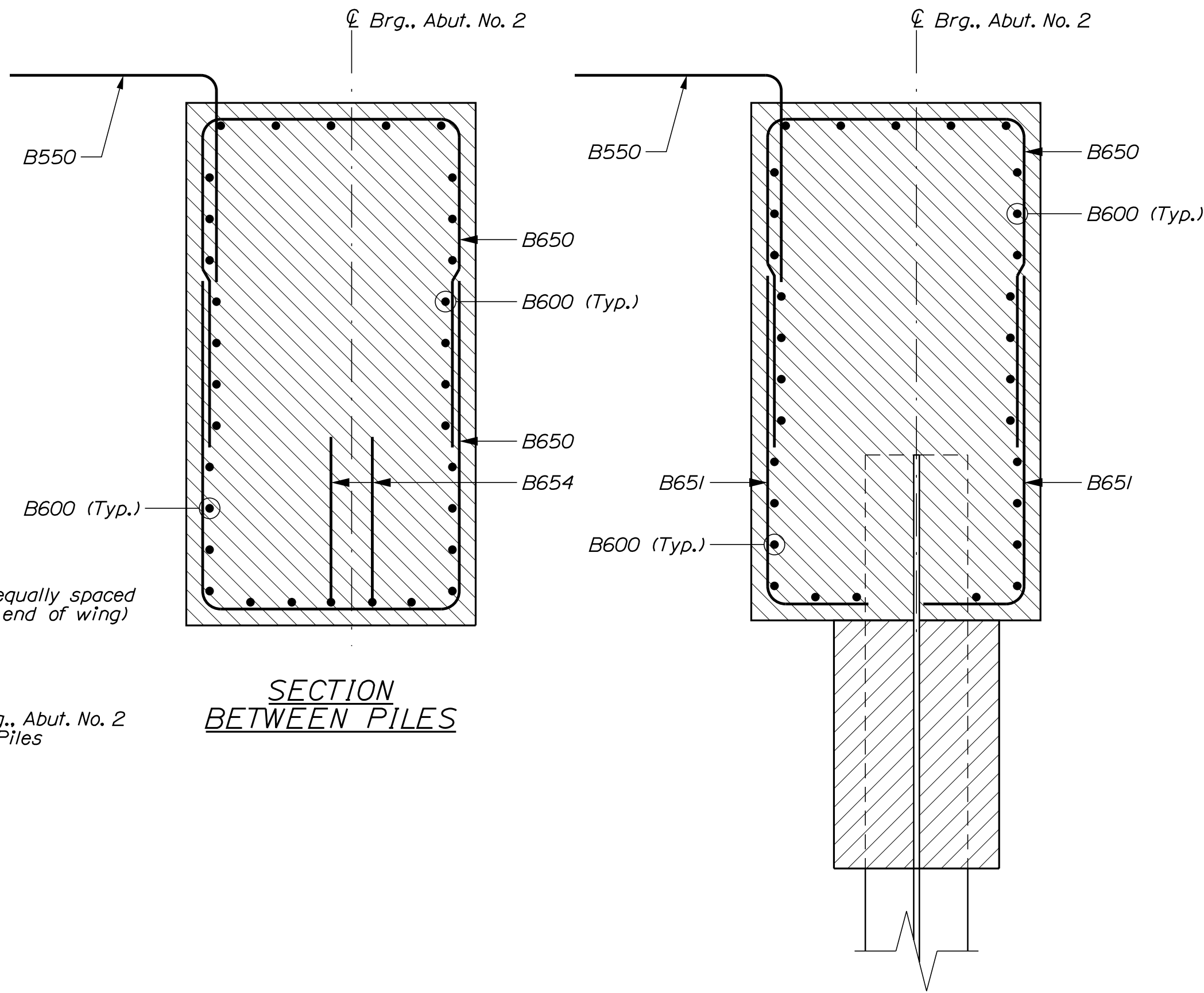
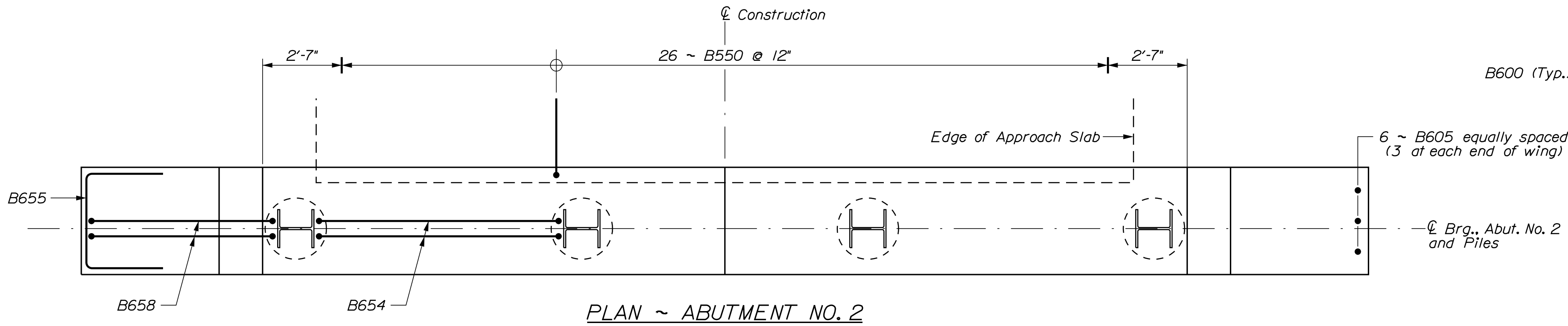
SHEET NUMBER 12 OF 21	GOODELL BRIDGE DAVIS BROOK WILLIMANTIC PISCATAQUIS COUNTY	PROJ. MANAGER J. STETSON	BY D. SHAW	DATE DEC 2018
	ABUTMENT NO. 1	DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED2 DESIGNS-DETAILED3	A. SHKARA J. HASBROUCK B. SLAVEN T. WHITE	TEAM NORTH DEC 2018 MAR 2017
		REVISIONS 1		
		REVISIONS 2		
		REVISIONS 3		
		REVISIONS 4	DATE	
		FIELD CHANGES		
STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2262(400) BRIDGE NO. 2317 WIN 022624.00 BRIDGE PLANS				



E.F. = Each Face

Set A

SECTION
AT WINGWALL



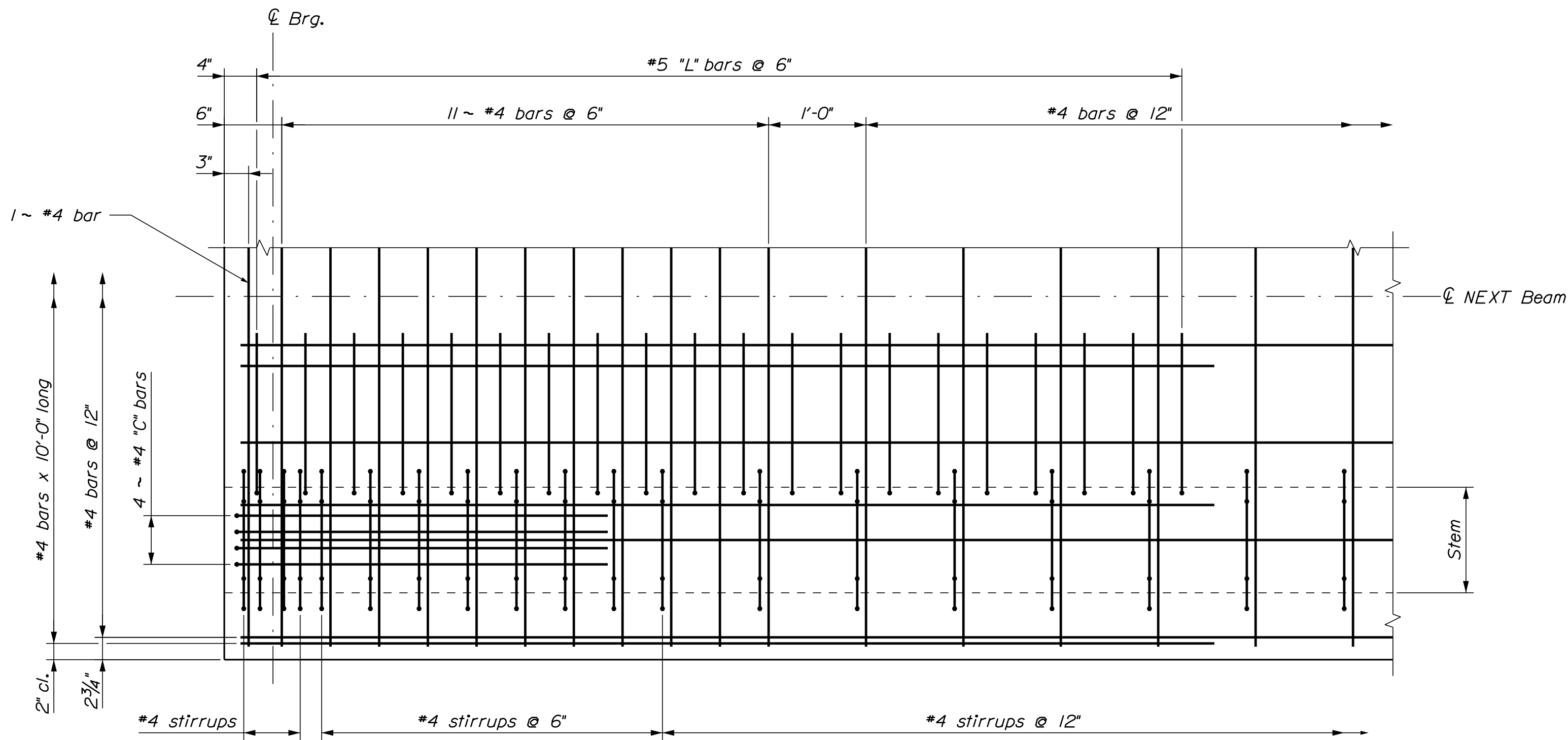
STATE OF MAINE				BRIDGE PLANS			
DEPARTMENT OF TRANSPORTATION				WIN			
STP-2262(400)				022624.00			
SIGNATURE				P.E. NUMBER			
DATE				DATE			
J. STETSON				J. STETSON			
BY				BY			
D. SHAW				D. SHAW			
DESIGNED				DESIGNED			
REVIEWED				REVIEWED			
TEAM NORTH				TEAM NORTH			
T. WHITE				T. WHITE			
REVISIONS 1				REVISIONS 1			
REVISIONS 2				REVISIONS 2			
REVISIONS 3				REVISIONS 3			
REVISIONS 4				REVISIONS 4			
FIELD CHANGES				FIELD CHANGES			
GOODSELL BRIDGE				SHEET NUMBER			
DAVIS BROOK				15			
PISCATAQUIS COUNTY				OF 21			
WILLIMANTIC							
ABUTMENT NO. 2 REINFORCEMENT							



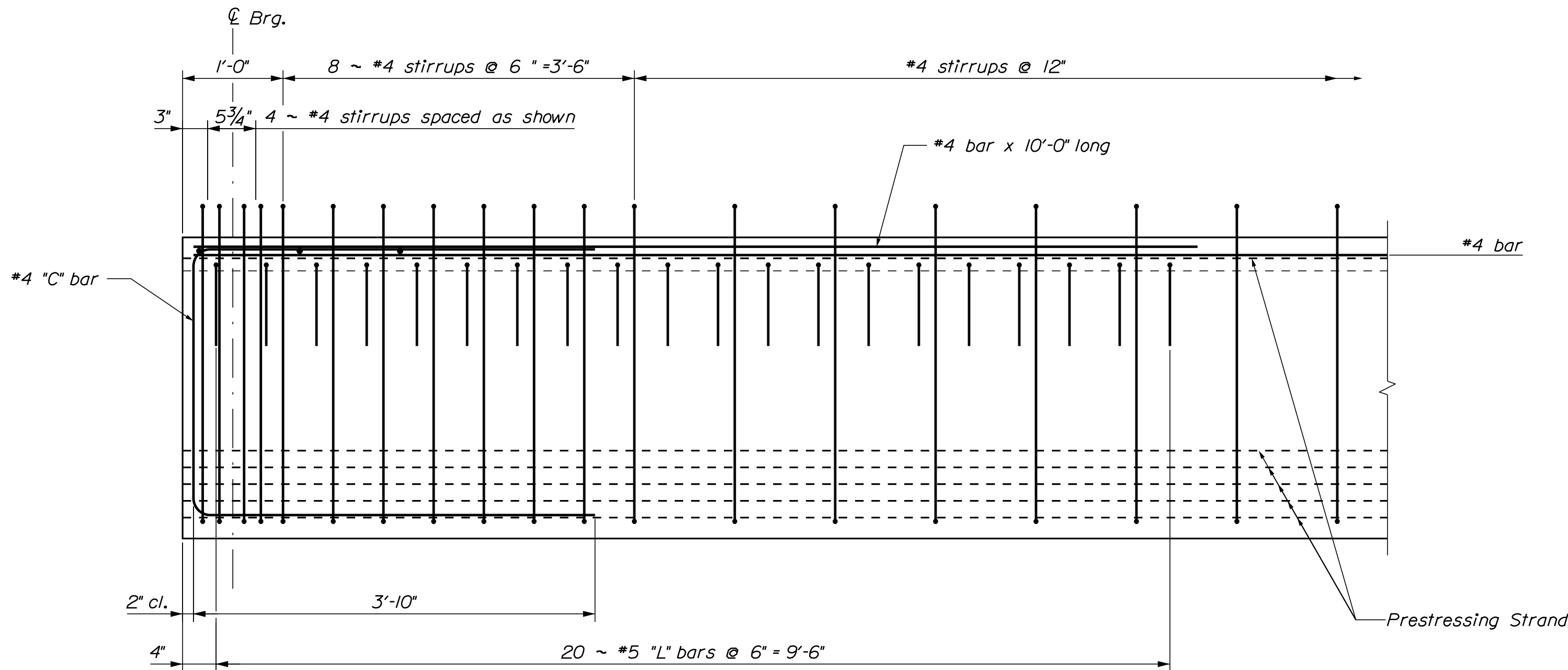
1. NEXT F Beams are a non - proprietary shape developed by PCI NORTHEAST (PCINE). Standardized section properties and details may be found at <http://www.pcine.org>.
2. The estimated camber at release is $2\frac{3}{4}$ inches and the estimated camber at erection is $4\frac{3}{4}$ inches. Refer to Special Provision Section 535, Precast, Prestressed Concrete Superstructure - Camber.
3. Prestressing strands shall be 0.6 inch diameter. The tensioning force is 44 kips per prestressing strand, including the top strands.
4. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
5. Do not drill or use powder actuated tools on the prestressed beams without the approval of the Fabrication Engineer.
6. The top surface of the upper flange of the prestressed beams shall be raked to a surface roughness of $\frac{1}{4}$ inch, except at 10-ft. increments along the centerline of each beam. At these locations a flattened area of sufficient size shall be left to facilitate taking elevations for setting bottom of slab elevations.
7. A maximum of 50 percent of the strands in the bottom 5 rows may be debonded 6 inches from the end of the beam. All 4 top row strands shall be fully bonded.
8. Lifting loops and temporary/storage/shipping dunnage shall be a maximum of 2 feet from each beam end.
9. All reinforcement shall be regular deformed steel reinforcement

1. *Elastomeric Bearing Pads shall be 1/4"x3'-0"x30'-2" per abutment.*
2. *The elastomer shall have a shear modulus of 95 psi.*
3. *Elastomeric Bearing Pads shall conform to the requirements of the latest edition of the AASHTO LRFD Bridge Construction Specifications, Section 18.2.*
4. *Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract items. No separate payment will be made.*

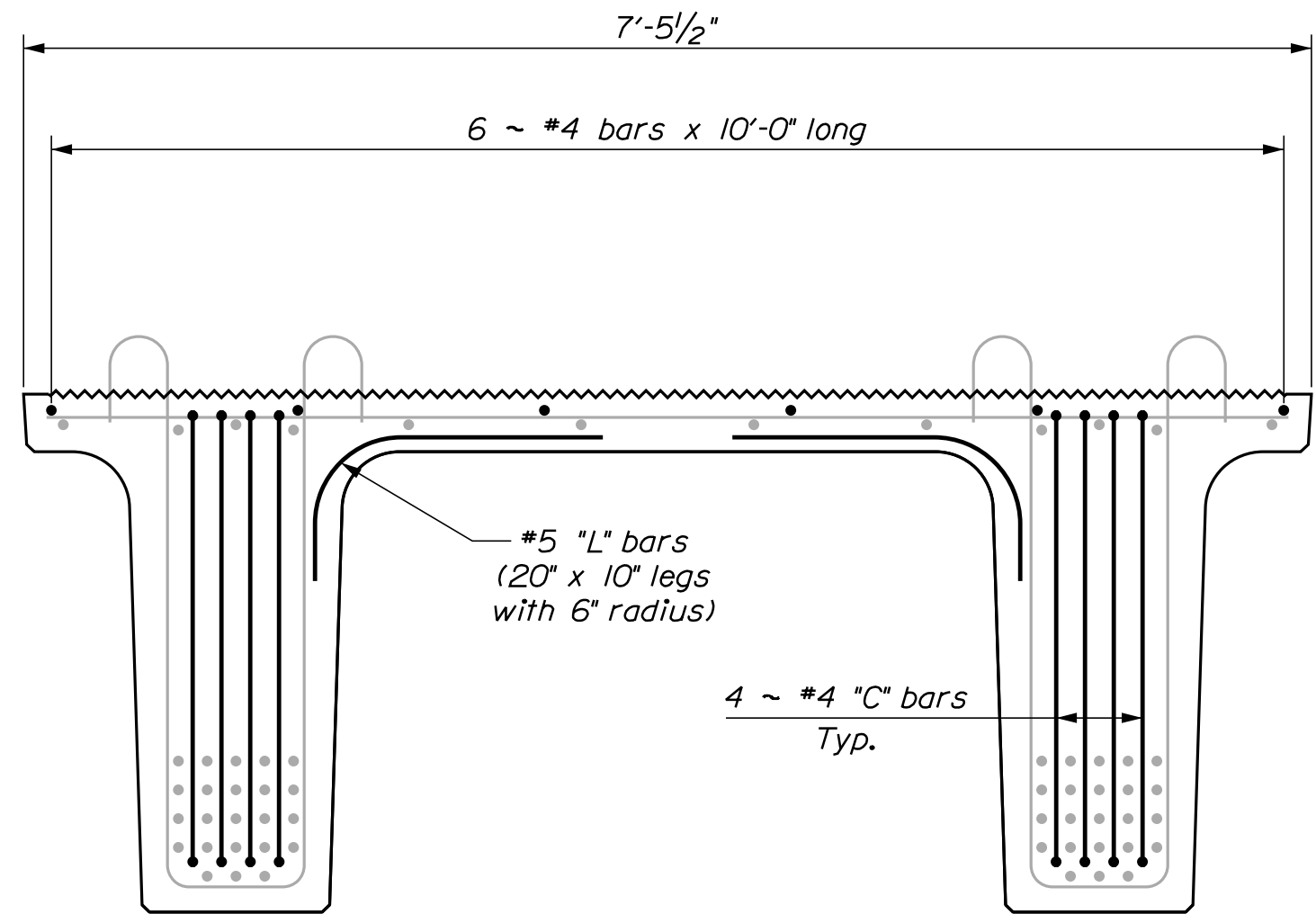
SHEET NUMBER 16 OF 21	GOODELL BRIDGE DAVIS BROOK WILLIMANTIC PISCATAQUIS COUNTY				PROJ. MANAGER J. STETSON	BY D. SHAW	DATE DEC. 2018	STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-2262(400)
	PRECAST NEXT BEAM				DESIGN-DETAILED J. SHIRAKA	TEAM NORTH	DEC. 2018	
					CHECKED-REVIEWED H. HASBROUCK	SIGNATURE		
					DESIGNER-DETAILED B. S. LAVER	MAR. 2017		
					DESIGNS-DETAILED J. WHITE	P.E. NUMBER		
				REVISIONS 1				BRIDGE NO. 2317 WIN 022624.00 BRIDGE PLANS
				REVISIONS 2				
				REVISIONS 3				
				REVISIONS 4				
				FIELD CHANGES				



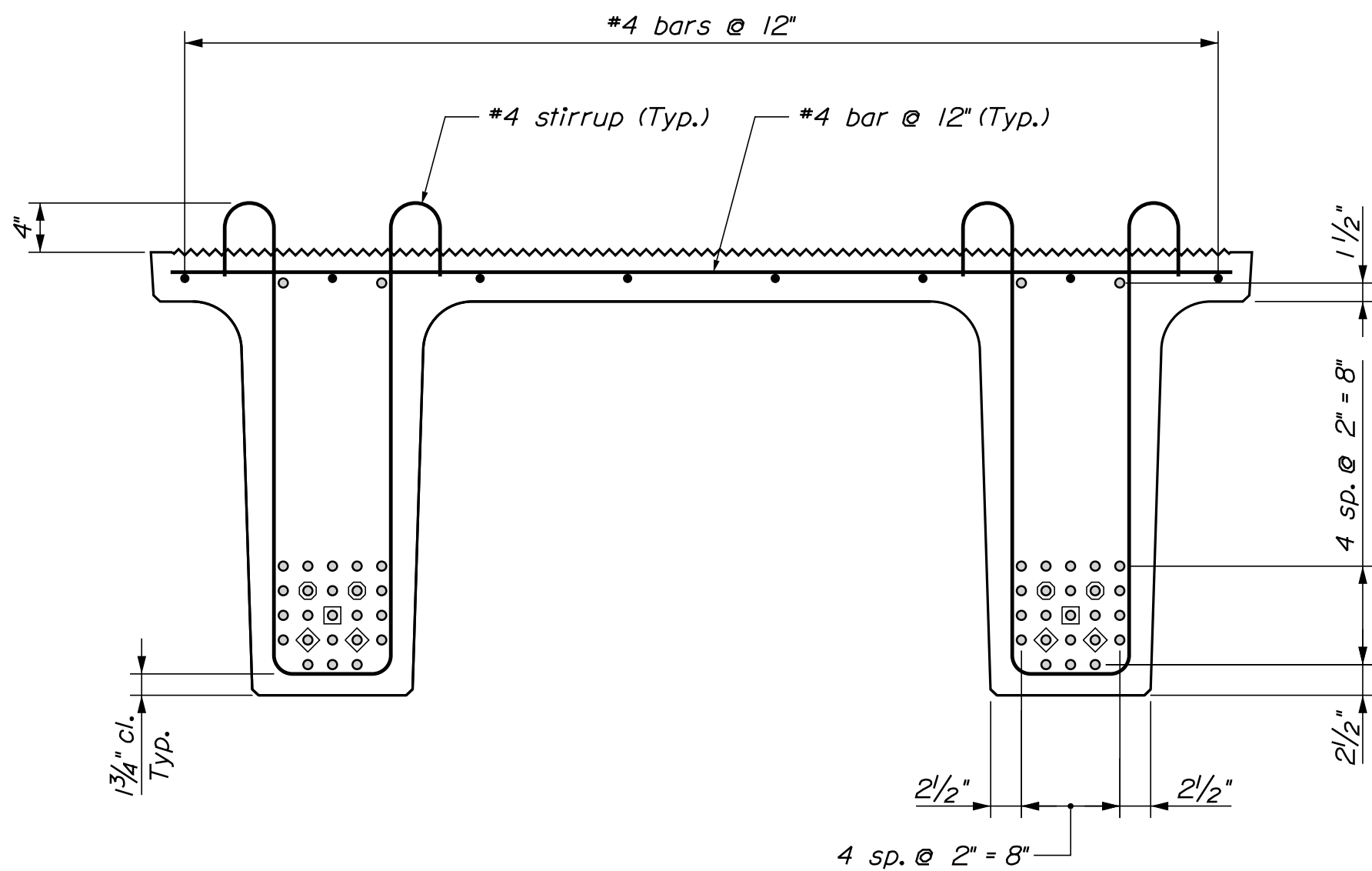
PARTIAL TOP FLANGE REINFORCING PLAN
Prestressing strands not shown



LONGITUDINAL SECTION THROUGH STEM



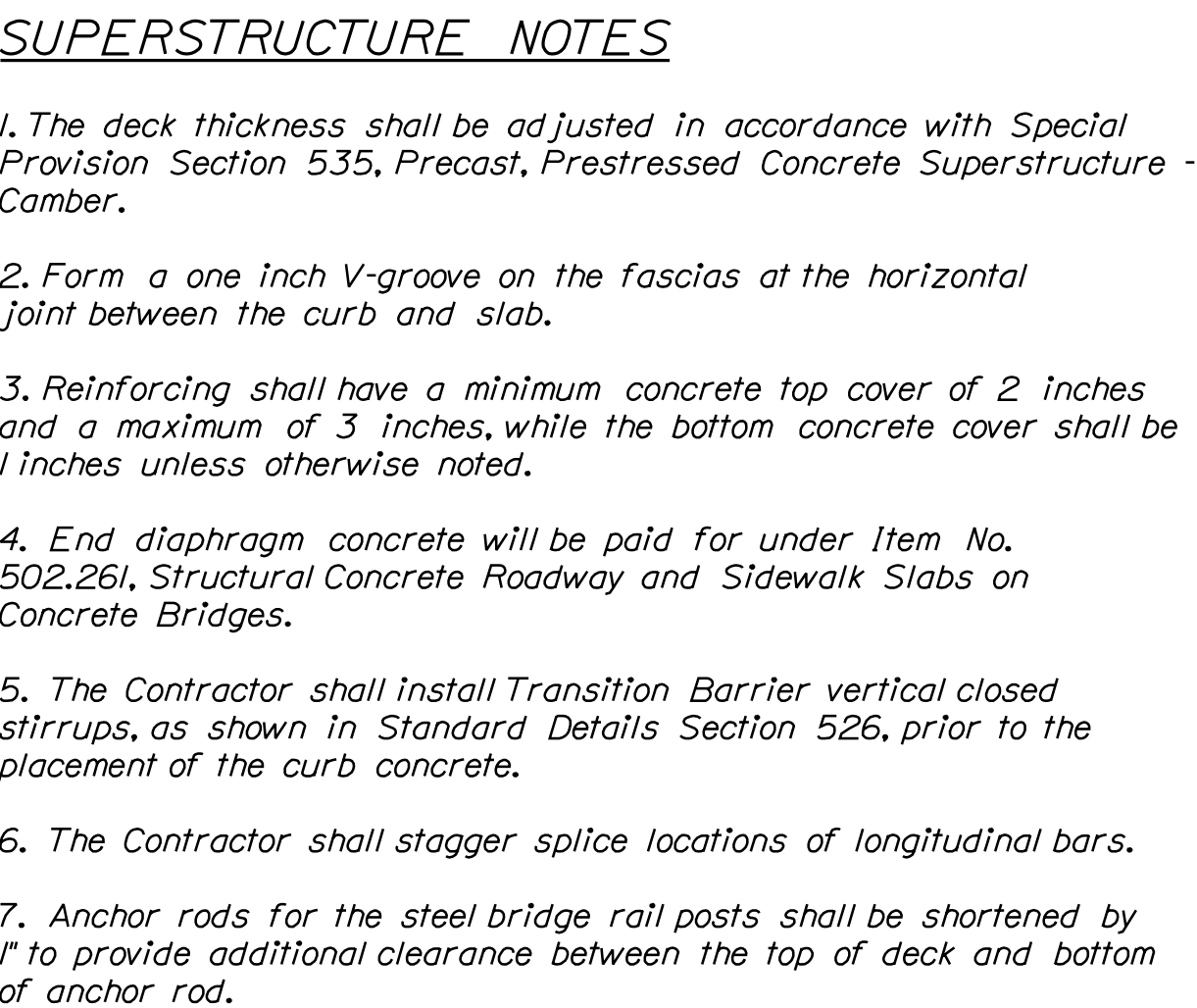
NEXT F BEAM END REINFORCING SECTION



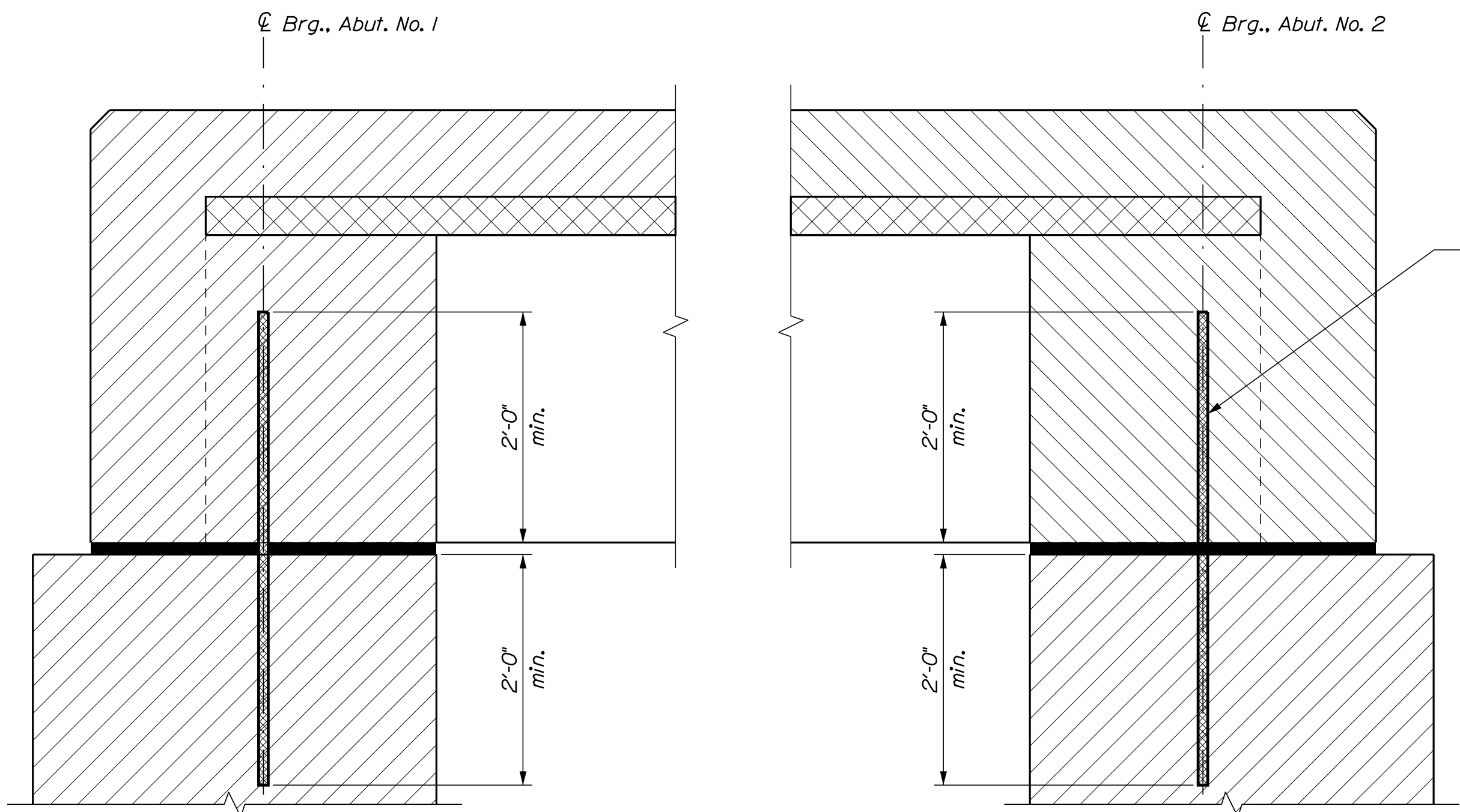
NEXT F BEAM TYPICAL REINFORCING SECTION

⊠ Strands debonded 16 ft.
⊡ Strands debonded 12 ft.
⊙ Strands debonded 4 ft.

SHEET NUMBER		GOODELL BRIDGE		J. STETSON		BY		DATE		STATE OF MAINE	
17		DAVIS BROOK		A. SHAW		D. SHAW		DEC. 2018		DEPARTMENT OF TRANSPORTATION	
		PISCATAQUIS COUNTY		CHECKED-REVIEWED		TEAM NORTH		DEC. 2018		SIGNATURE	
		WILLIMANTIC		DESIGN-DETAILED		B. SLAVEN		MAR. 2017		P.E. NUMBER	
		PRECAST NEXT BEAM		DESIGNS-DETAILED		T. WHITE				DATE	
				REVISIONS 1							
				REVISIONS 2						WIN	
				REVISIONS 3						022624.00	
				REVISIONS 4						BRIDGE NO. 2317	
		FIELD CHANGES								BRIDGE PLANS	

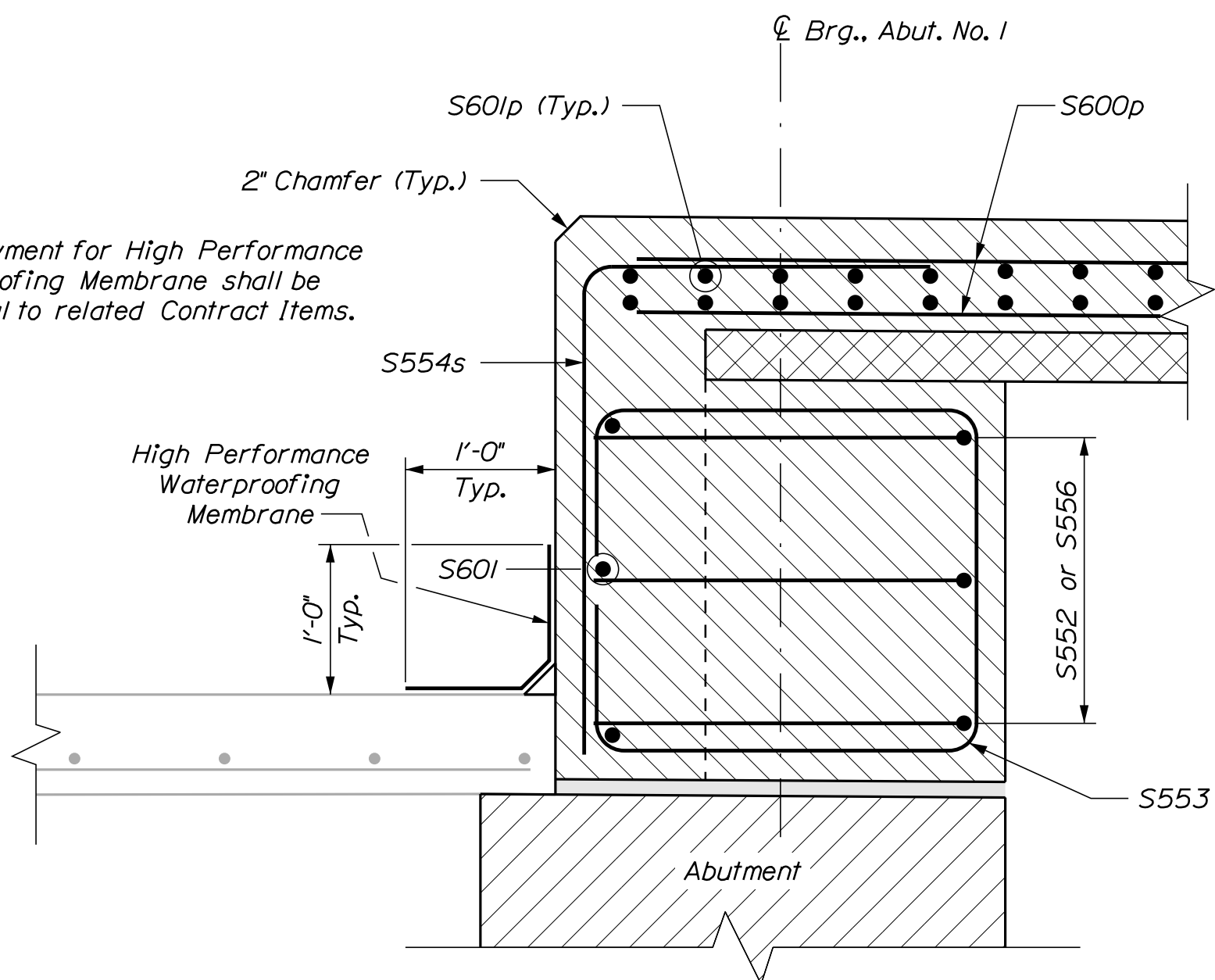


PROPOSED BRIDGE SECTION

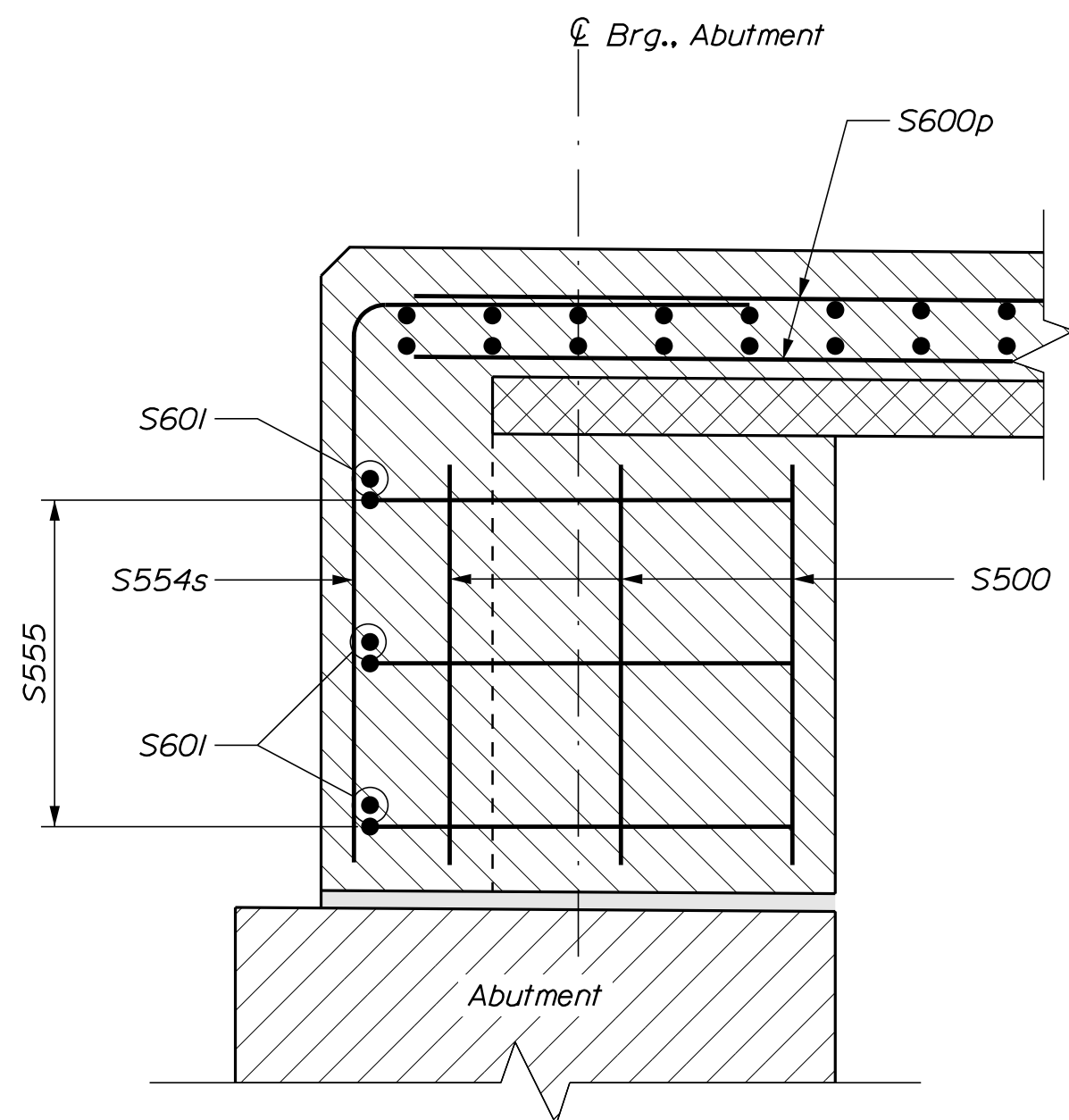


SUPERSTRUCTURE ANCHORAGE DETAIL

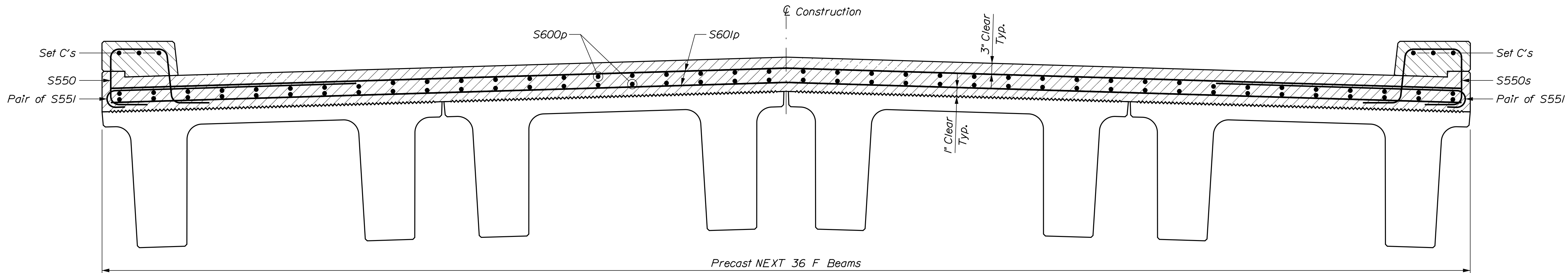
Note: Payment for High Performance Waterproofing Membrane shall be incidental to related Contract Items.



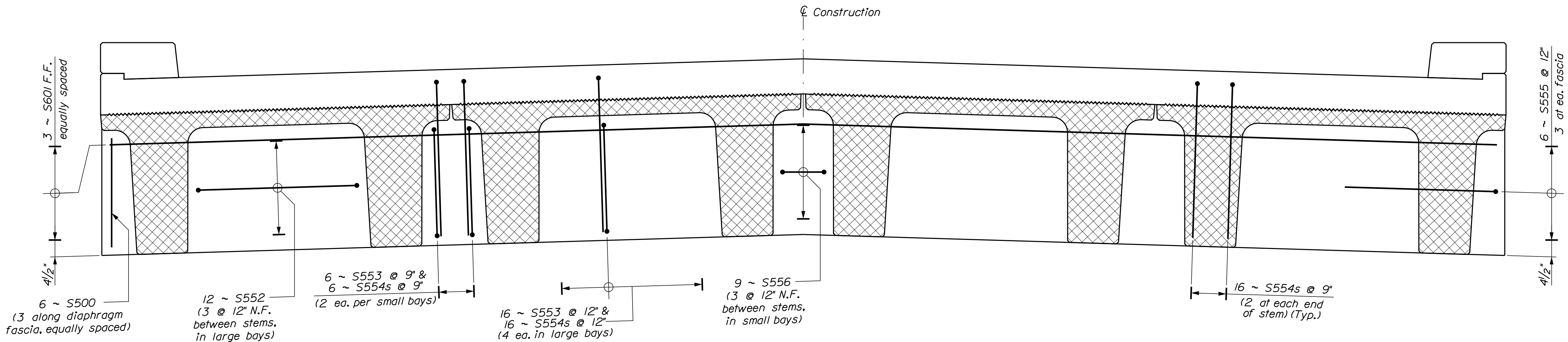
END DIAPHRAGM SECTION



END DIAPHRAGM SECTION AT FASCIA



SUPERSTRUCTURE SLAB REINFORCEMENT



END DIAPHRAGM REINFORCEMENT

[illegible]

SHEET NUMBER

20

OF 21

Engineering plan for a road project in Willimantic, Maine. The plan shows the layout of a road, including existing and proposed right-of-way (R/W) lines, easements, and property boundaries. Key features include:

- Legend:** Defines symbols for various features such as buildings, trees, lines, and easements.
- Plan View:** Shows the road layout with stationing (e.g., STA. 6+15.22, STA. 11+82.12) and various easements (e.g., Slope Easement, Drainage Easement).
- Curved Data:** Provides details for curved sections of the road, including PI, D, Δ, R, L, T, and E values.
- Property Owners:** Lists owners and their respective parcels, including Jacquelyn E. Gorey, George M. Gorey, and David T. Rice.
- Notes:** Includes a note about a prescriptive easement for highway purposes within limits of wrought portion (L.O.W.P.).
- Scale and Orientation:** Includes a scale bar (0 to 100 feet) and a north arrow.
- Revisions:** A table at the bottom left tracks changes to the plan, including date, description, and by whom.
- Plan Book and County Record:** A table at the bottom center provides information about the plan book and county record, including page numbers and dates.
- Project Information:** A table at the bottom right provides details about the project, including the town (Willimantic), project name (Piscataquis County), and sheet number (21 of 21).