

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



FRYEBURG OXFORD COUNTY LITTLE POND BRIDGE OVER LITTLE POND STREAM ROUTE 302 FEDERAL AID PROJECT NO. BR-1787(200)X PROJECT LENGTH 0.076 mi. BRIDGE NO. 2464

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fifth Edition 2010 and Interim Specifications through 2011

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2010) AADT 3,720
 Future (2030) AADT 5,210
 DHV - % of AADT 10
 Design Hour Volume 521
 Heavy Trucks (% of AADT) 18
 Heavy Trucks (% of DHV) 15
 Directional Distribution (% of DHV) 60
 18 kip Equivalent P 2.0 427
 18 kip Equivalent P 2.5 407
 Design Speed (mph) 45

HYDROLOGIC DATA

Drainage Area 5.3 sq mi
 Design Discharge (Q50) 937.5 cfs
 Check Discharge (Q100) 1105.4 cfs
 Headwater Elevation (Q50) 396.31 ft
 Headwater Elevation (Q100) 396.97 ft
 Discharge Velocity (Q50) 3.55 fps
 Discharge Velocity (Q100) 3.88 fps

MATERIALS

Concrete:
 Curbs & Transition Barriers Class "LP"
 Precast Class "P"
 All Other Class "A"
 Reinforcing Steel ASTM A 615/A 615M, Grade 60
 Prestressing Strands AASHTO 203 (ASTM A 416),
 Grade 270, Low Relaxation
 Structural Steel:
 All Material (except as noted) ASTM A 709, Grade 36
 High Strength Bolts ASTM A 325, Type 1

BASIC DESIGN STRESSES

Concrete f 'c = 4,350 psi
 Precast Concrete f 'c = 6,000 psi
 Reinforcing Steel f 'ci = 4,500 psi
 Prestressing Strand f y = 60,000 psi
 Structural Steel: F μ = 270,000 psi
 ASTM A 572, Grade 50 F y = 50,000 psi
 ASTM A 709, Grade 36 F y = 36,000 psi
 ASTM A 325 F μ = 120,000 psi

UTILITIES

Central Maine Power Company Time Warner Cable
 Northland Telephone

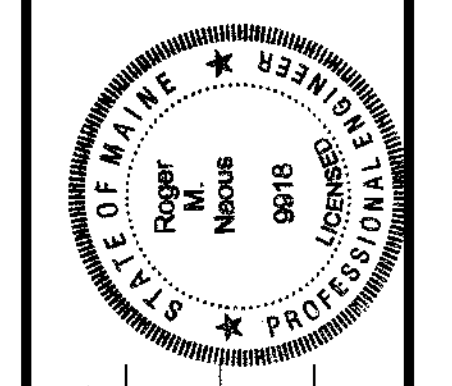
MAINTENANCE OF TRAFFIC

Maintain one 12'-0" to 13'-0" wide lane of alternating two - way traffic using electronic traffic signals.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED: *[Signature]*
COMMISSIONER: *[Signature]*
DATE: 12/28/11
CHIEF ENGINEER: *[Signature]*



SIGNATURE: *[Signature]*
P.E. NUMBER: 9816
DATE: DEC 28 2011

PROGRAM	BRIDGE
PROJECT MANAGER	MARK PARKIN
DESIGNER	ROGER NAOUS
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 17872.00

BR-1787(200)X

FRYEBURG
LITTLE POND BRIDGE
TITLE SHEET

PROJECT LOCATION:	0.78 miles westerly of the Bridgton town line. 44°02'53.08" N, 70°51'51.41" W
PROGRAM AREA:	Urban & Federal Bridge Program
OUTLINE OF WORK:	Replace Little Pond Bridge (2464) over Little Pond.

SHEET NUMBER
1
OF 24

Date: 12/28/2011

Username: brion_j_nichols

Division: BRIDGE

Filename: \\00\BRIDGE\MSTAN\001_ Title.dgn

Date: 1/4/2012

Username: briani_jnichols

Division: BRIDGE

Filename: ... \BRIDGE\MSTA\002_Estimate.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	REMOVING EXISTING BRIDGE (400 CY)	1	LS
203.20	COMMON EXCAVATION	1545	CY
203.24	COMMON BORROW	5	CY
203.25	GRANULAR BORROW	345	CY
203.35	CRUSHED STONE FILL	19	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES (PLAN QTY)	480	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	2000	CY
403.207	HOT MIX ASPHALT 19.0 MM HMA	196	T
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	183	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	183	T
409.15	BITUMINOUS TACK COAT - APPLIED	110	G
501.231	DYNAMIC LOADING TEST	2	EA
501.50	STEEL H-BEAM PILES 89 LBS/FT, DELIVERED	1545	LF
501.501	STEEL H-BEAM PILES 89 LBS/FT, IN PLACE	1545	LF
501.90	PILE TIPS	10	EA
501.91	PILE SPLICES	20	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCT CONC. ABUTMENTS & RETAINING WALLS (70 CY)	1	LS
502.261	STRUCT CONC RDWY & SW SLAB ON CONC BRIDGES (24 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLABS (23 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALK (10 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED & DELIVERED	10300	LB
503.13	REINFORCING STEEL, PLACING	10300	LB
503.14	EPOXY COATED REINFORCING STEEL, FABRICATED & DELIVERED	300	LB
503.15	EPOXY COATED REINFORCING STEEL, PLACING	300	LB
507.0811	STEEL BRIDGE RAILING, 2 BAR (70 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (200 SY)	1	LS
511.07	COFFERDAM: ABUTMENT NO. 1	1	LS
511.07	COFFERDAM: ABUTMENT NO. 2	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (75 SY)	1	LS
526.301	TEMPORARY CONCRETE BARRIER (100 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	EA
535.60	PRESTRESSED STRUCTURAL CONCRETE SLAB (80 CY)	1	LS
606.1721	BRIDGE TRANSITION - TYPE 1	4	EA
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	200	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	4	EA
610.08	PLAIN RIPRAP	300	CY
613.319	EROSION CONTROL BLANKET	35	SY
615.07	LOAM	26	CY
618.1301	SEEDING METHOD NUMBER 1 - PLAN QUANTITY	5	UN
619.1201	MULCH - PLAN QUANTITY	5	UN
619.1401	EROSION CONTROL MIX	52	CY
620.58	NON-WOVEN EROSION CONTROL GEOTEXTILE	300	SY
627.733	4" WHITE OR YELLOW PAINTED PAVE MRK LINE	2000	LF
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	40	HR
631.14	GRADER (INCLUDING OPERATOR)	40	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	40	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	40	HR
639.18	FIELD OFFICE TYPE A	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	20	EA
652.34	CONE	20	EA
652.35	CONSTRUCTION SIGNS	300	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	30	CD
652.38	FLAGGER	200	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

GENERAL CONSTRUCTION NOTES

- During construction, the road should remain open to two way traffic at all times utilizing an alternating one lane through the bridge as shown in staged construction plan.
- 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.
- 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 rental items.
- All embankment material, except as otherwise shown, placed below EL. 392.94 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.
- Place riprap on sideslopes up to EL. 400.31
- Construct the riprap shelf at each abutment at EL. 396.31
- 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. 619.1401, Erosion Control Mix.
- Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
- An NCHRP350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.
- 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:

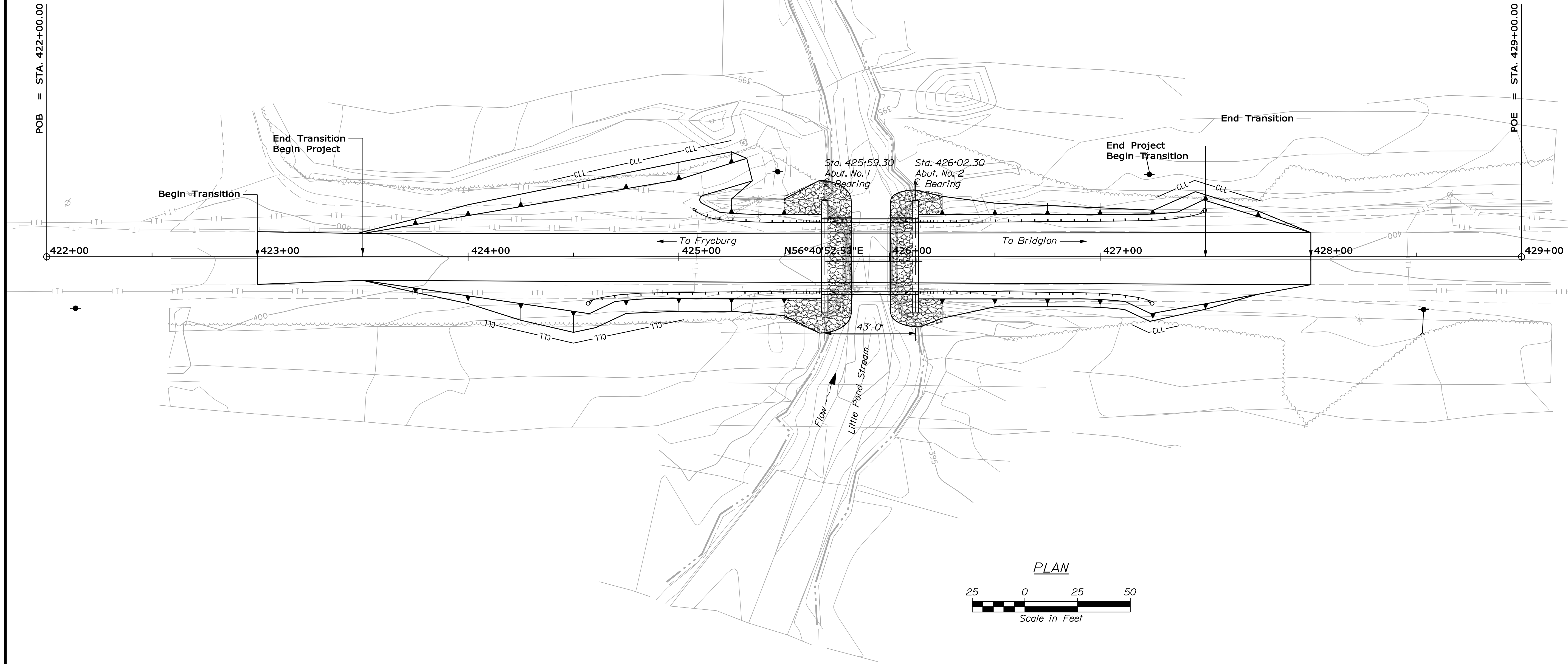
All exposed surfaces of concrete curbs and sidewalks, Fascias down to the drip notch,
 All exposed surfaces of Concrete Transition Barriers,
 Top of Abutment wings and to one foot below the top of wings on the back side.

- Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>
- 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.
- 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.
- The project geotechnical report titled: Geotechnical Design Report for the Replacement of Little Pond Bridge, US Route 302, Fryeburg, Maine, Soils Report No. 2011-21, October 27, 2011, may be accessed at the MaineDOT web address.
- 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.

- 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:
 - If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.
 - If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.
 - 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.

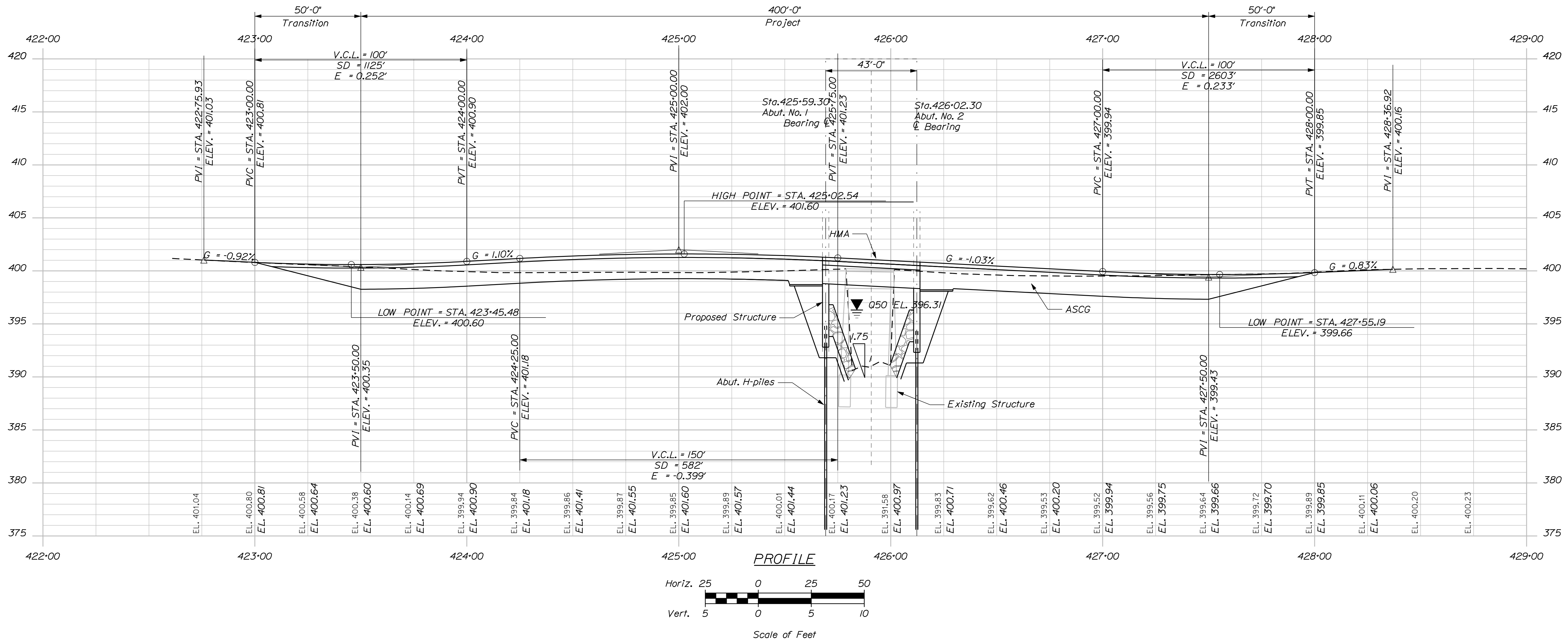
- All costs for cofferdams, including pumping, maintenance, related temporary soil erosion and water pollution controls and removal, will not be paid for directly, but will be considered incidental to related Contract items.
- The Contractor shall submit a Bridge Demolition Plan to the Resident at least 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
- The existing bridge shall be removed by and become the property of the Contractor. The Contractor is responsible for the containment, proper management and disposal of 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. 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.
- Concrete and all associated work necessary for the concrete encasement around the top of steel H-Piles will not be paid for directly. Payment shall be incidental to related contract items.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BR-1787(200)X		BRIDGE NO. 2464		WIN		17872.00		BRIDGE PLANS	
LITTLE POND BRIDGE		LITTLE POND STREAM		OXFORD COUNTY		FRYEBURG		ESTIMATED QUANTITIES		SHEET NUMBER		2	
PROJ. MANAGER		MAP		BY		DATE		SIGNATURE		P.E. NUMBER		DATE	
DESIGN-DETAILED		R. NAOLIS		ADN		JUN 2011							
CHECKED-REVIEWED				BN									
DESIGNS DET AILED													
DESIGNS DET AILED													
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													

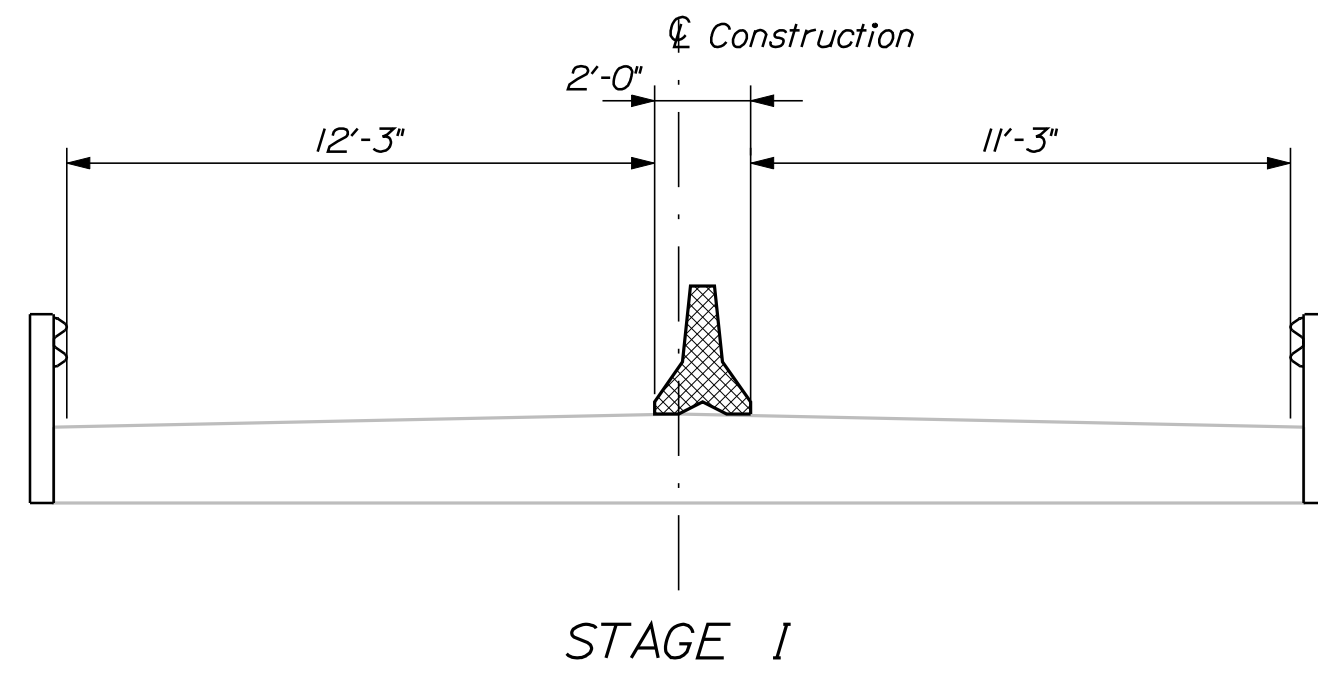


PLAN
 Scale in Feet

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
BR-1787(200)X		BRIDGE NO. 2464	
WIN		17872.00	
BRIDGE PLANS			
LITTLE POND BRIDGE		LITTLE POND STREAM	
FRYEBURG		OXFORD COUNTY	
PLANS		SHEET NUMBER	
3		OF 24	
PROJ. MANAGER	MAP	BY	DATE
CHECKED-REVIEWED	R. NAUJIS	ADN	JUN 2011
DESIGNS DETAILED		BN	
DESIGNS DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
		SIGNATURE	
		P.E. NUMBER	
		DATE	



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
BR-1787(200)X		BRIDGE NO. 2464	
WIN		17872.00	
BRIDGE PLANS			
PROJ. MANAGER	MAP	BY	DATE
DESIGN-DETAILED	R. NAUJUS	ADN	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
LITTLE POND BRIDGE		SIGNATURE	
LITTLE POND STREAM		P.E. NUMBER	
FRYEBURG		DATE	
OXFORD COUNTY			
PROFILE			
SHEET NUMBER			
4			
OF 24			



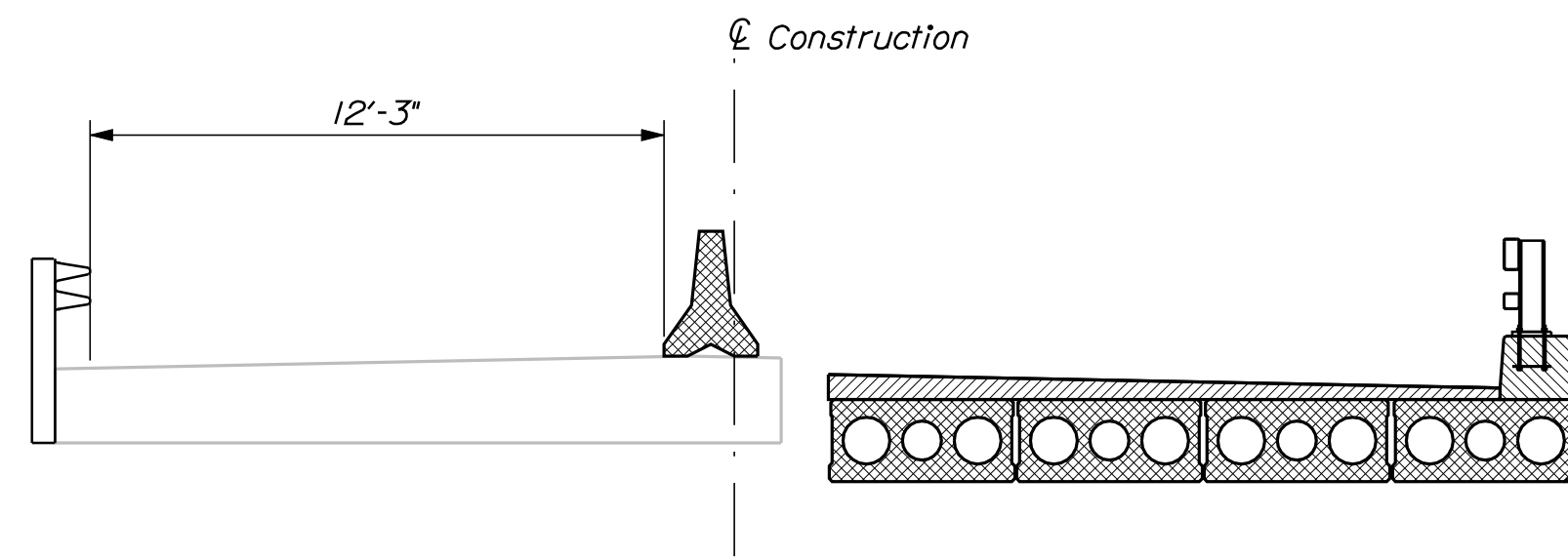
STAGE I

STAGE I

1. Position temporary concrete barrier.
2. open northerly travel lane to traffic.

STAGE II

1. Cut and remove southerly side of the existing bridge.
2. Place & post tension the first four precast concrete beams.
3. place first part of the concrete leveling slab w/ curb & guardrail.



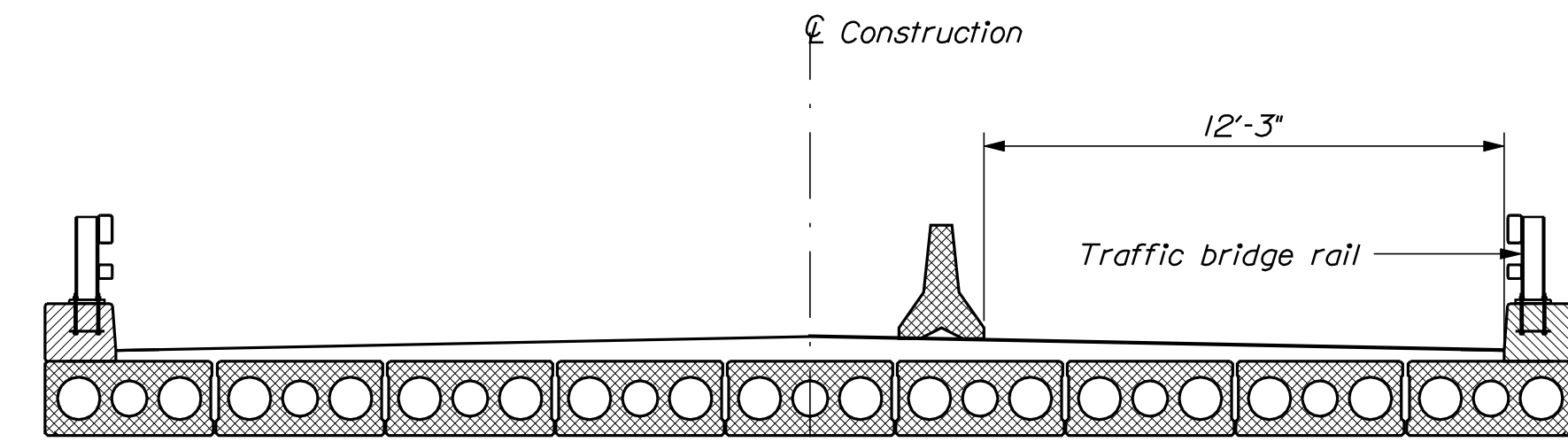
STAGE II

STAGE III

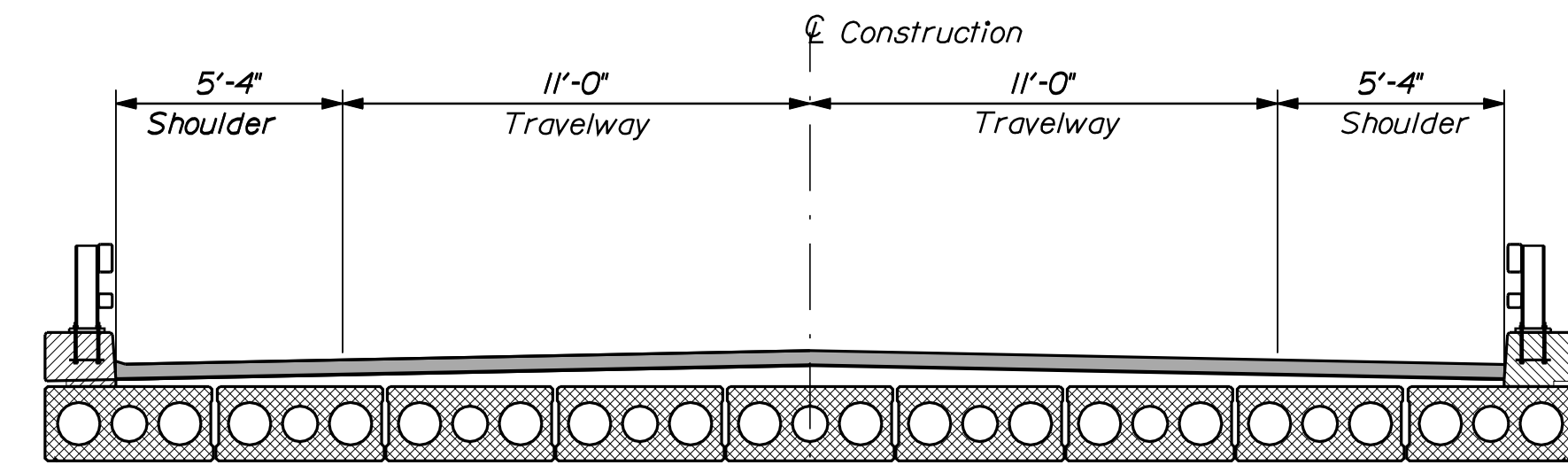
1. Move temporary concrete barrier to create a travel lane on the southerly part of the structure.
2. Switch travel lane to southerly side.
3. Place & post tension the remaining precast concrete beams.

STAGE IV

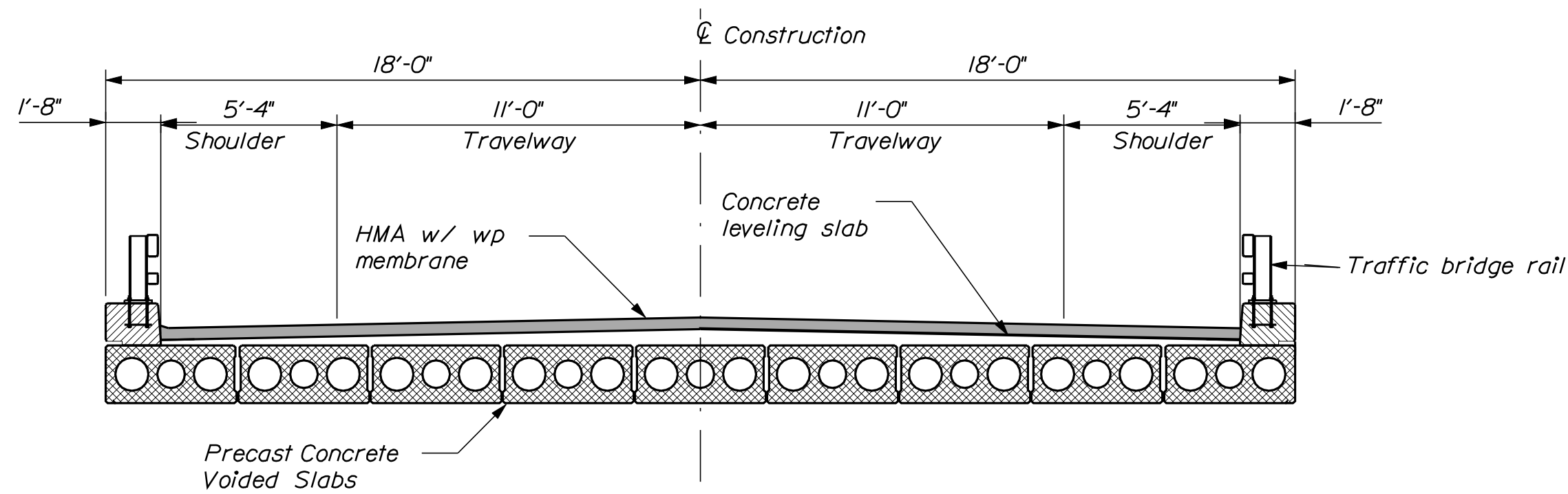
1. Place the remaining concrete leveling slab and curb w/ guardrail.
2. Place finish pavement.



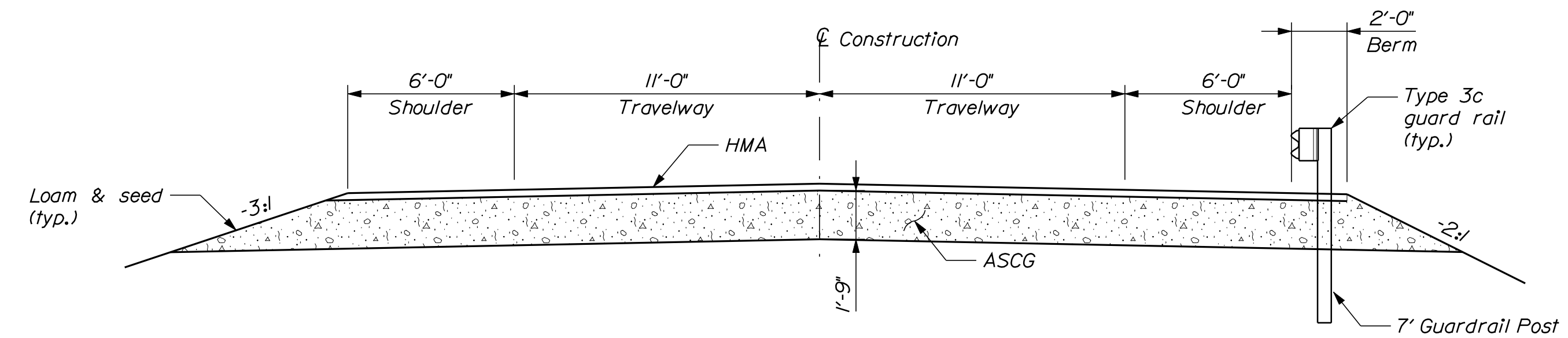
STAGE III



STAGE IV



BRIDGE SECTION
(typical)



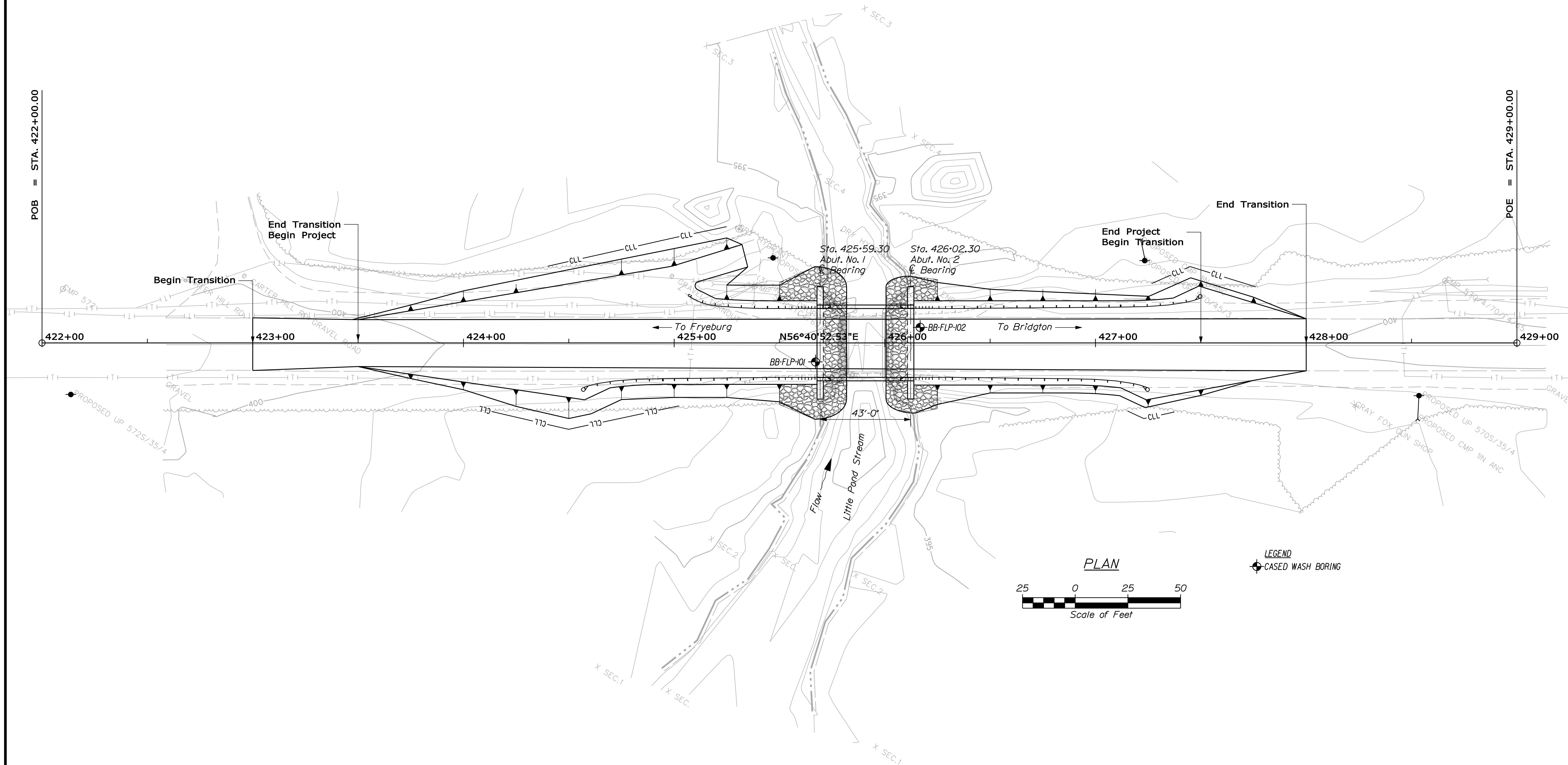
APPROACH SECTION
(typical)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
WIN
17872.00
BRIDGE NO. 2464
BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN DETAILED	R. NAJOS	ADN	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG
OXFORD COUNTY
STAGE CONSTRUCTION & NOTES

SHEET NUMBER
5
OF 24

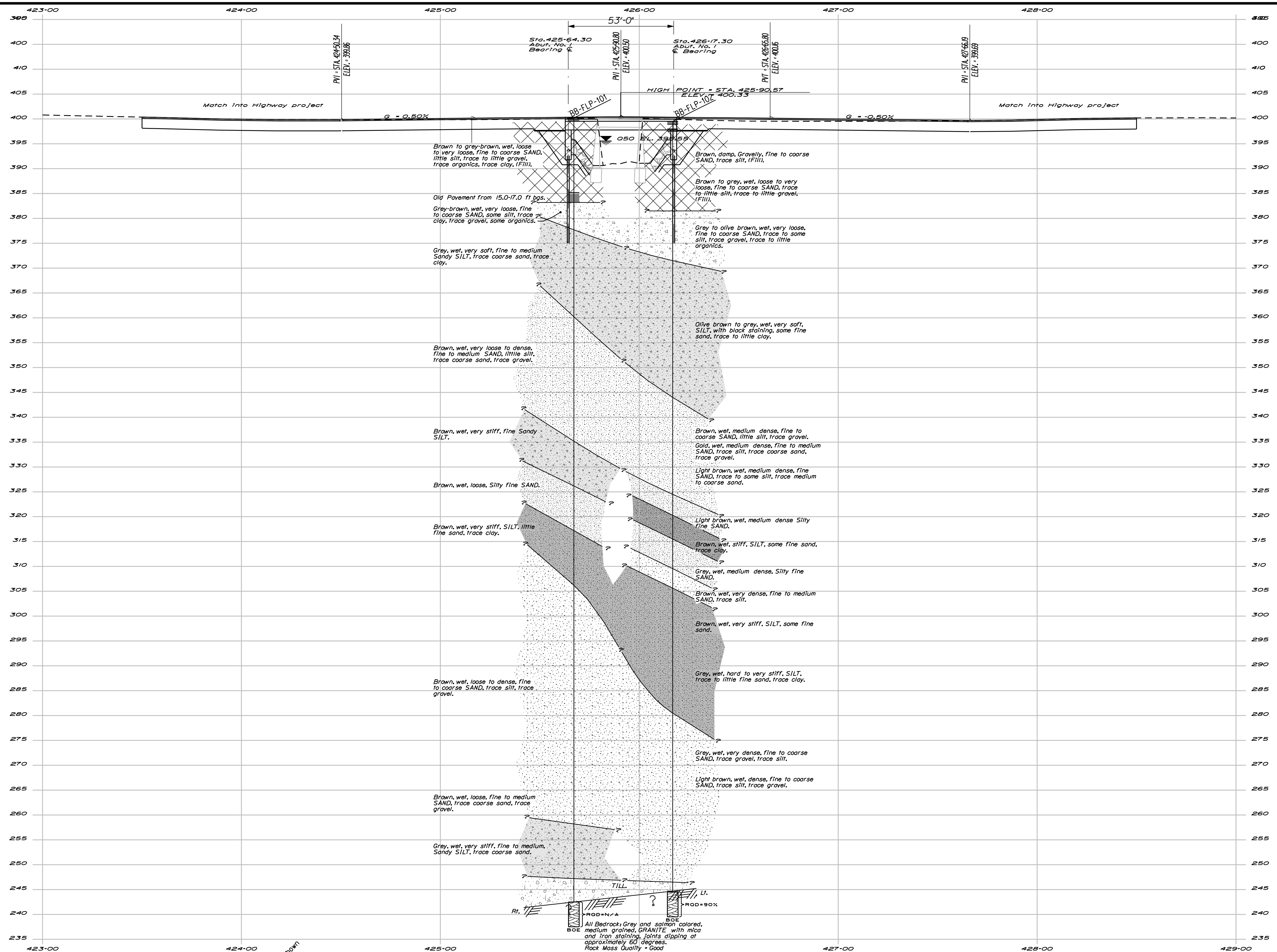


STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
 BRIDGE NO. 2464 WIN 17872.00
 BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN DETAILED	K. MAGUIRE	T. WHITE	JUN 2011
CHECKED/REVIEWED			
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
 LITTLE POND STREAM
 OXFORD COUNTY
 FRYEBURG
BORING LOCATION PLAN

SHEET NUMBER
6
 OF 24



LEGEND

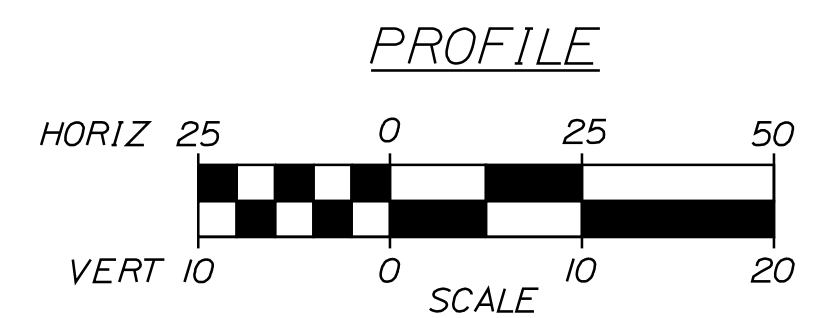
Boring No. / Offset / If shown

Pavement Thickness if applicable

Strata Interface

Rock Quality Designation for Rock Core Sample

Bottom Of Exploration



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

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
BR-1787(200)X		BRIDGE NO. 2464	
WIN		17872.00	
BRIDGE PLANS			
PROJ. MANAGER	DATE	MAP	BY
DESIGN-DETAILED	JUN 2011	K. MAGUIRE	T. WHITE
CHECKED-REVIEWED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
LITTLE POND BRIDGE		OXFORD COUNTY	
LITTLE POND STREAM		FRYEBURG	
INTERPRETIVE SUBSURFACE PROFILE		SHEET NUMBER	
		7	
		OF 24	

Maine Department of Transportation		Project: Little Pond Bridge #2464 carries Rt. 302 over Little Pond Stream		Boring No.: BB-FLP-102		
US CUSTOMER UNITS		Location: Fryeburg, Maine		WIN: 17872_00		
Operator: C/Gagne/S/Le/Doggett	Elevation (ft.): 399.5	Auger ID/DBI: 5" Solid Stem				
Logged By: B. Willard	Date: NAD88	Sampler: Standard Split Spoon				
Date Start/Finish: 4/14/11-5/3/11	Rig Type: CME 45C	Home Wt./Fall: 140#/30"				
Boring Location: 426+16.8, 7.4 ft Lt.	Drilling Method: Cased Wash Boring	Core Barrel: ND-2"				
Home Efficiency Factor: 0.84	Casing ID/DBI: NW	Water Level#: 5.5 ft bgs.				
Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/> Deflections: S_u = In Situ Field Vane Shear Strength (psf) S_{uL} = Lab Vane Shear Strength (psf) S_v = Split Spoon Sample S_{vL} = Split Spoon Sample S_{vL} = Split Spoon Sample q_u = Unconfined Compressive Strength (psf) q_{uL} = Unconfined Compressive Strength (psf) c_u = Cohesion (psf) c_{uL} = Cohesion (psf) ϕ = Friction Angle (degrees) ϕ_L = Friction Angle (degrees) γ = Unit Weight (pcf) γ_L = Unit Weight (pcf) ρ_w = Water Content (%) ρ_{wL} = Water Content (%) LL = Liquid Limit (%) LL_L = Liquid Limit (%) PI = Plasticity Index (%) PI_L = Plasticity Index (%) IP = Plasticity Index (%) IP_L = Plasticity Index (%) U_c = Compression Index (%) U_{cL} = Compression Index (%) e = Void Ratio e_L = Void Ratio σ_v = Vertical Effective Stress (psf) σ_{vL} = Vertical Effective Stress (psf)						
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Moist. (w/w %)	Visual Description and Remarks	Laboratory Testing Results/ASSTO and Unified Class
0					7" Pavement	
10	24/17	1.50 - 3.50	47/27/14/12	41	Brown, damp, Gravelly, fine to coarse SAND, trace silt, (F111).	GW45172 A-3, SP MC=18.3%
5	20	5.00 - 7.00	3/2/3/8	5	Brown, wet, loose, fine to coarse SAND, little silt, little gravel, (F111).	GW45173 A-4, ML MC=18.2%
10	24/3	10.00 - 12.00	ND/ND/1/1	1	Grey, wet, very loose, fine to coarse SAND, trace silt, trace gravel, (F111).	GW45174 A-2-4, SM MC=20.7%
15	40	14.00 - 16.00	ND/ND/ND/ND	1	Brown, wet, very loose, fine to coarse SAND, trace gravel, trace silt, (F111).	GW45175 A-4, ML MC=20.7%
20	24/6	19.00 - 21.00	1/ND/ND/ND	5	Grey, wet, very loose, fine to coarse SAND, trace gravel, trace silt.	GW45176 A-2-4, SM MC=20.7%
25	60	24.00 - 26.00	ND/ND/1/1	1	Diive-brown, wet, very loose, fine to medium SAND, some silt, trace coarse sand, trace gravel, little organics.	GW45177 A-2-4, SM MC=20.7%
30	70	29.00 - 31.00	ND/ND/ND/ND	40	Diive-brown, wet, very soft, SILT, some fine sand, trace clay.	GW45178 A-4, ML MC=20.7%
35	80	35.00 - 37.00	ND/ND/ND/ND	32	Grey, wet, very soft, SILT, some fine sand.	GW44951 A-4, ML MC=22.9%
40	90	40.00 - 42.00	ND/ND/ND/ND	29	Similar to above.	
45	100	45.00 - 47.00	ND/ND/ND/ND	41	Grey, wet, very soft, SILT, some fine sand, trace clay, with black staining.	GW44952 A-4, ML MC=25.0%
50	110	50.00 - 52.00	ND/ND/ND/ND	43	Grey, wet, very soft, SILT, little clay, little fine to medium sand.	GW44953 A-4, ML MC=25.4%
55	120	55.00 - 57.00	ND/ND/8/10	16	Brown, wet, medium dense, fine to coarse SAND, little silt, trace gravel.	GW44954 A-2-4, SM MC=18.9%
60	130	60.00 - 62.00	3/9/12/20	21	Gold, wet, medium dense, fine to medium SAND, trace silt, trace coarse sand, trace gravel. 2.0 ft running sand, kept a head of water in casing on all spoons from 60.0 ft bgs to bottom of boring.	GW44955 A-3, SP MC=22.5%
65	140	65.00 - 67.00	1/6/9/15	13	Light brown, wet, medium dense, fine SAND, trace silt, trace medium to coarse sand, trace gravel.	GW44956 A-3, SP MC=24.4%
70	150	70.00 - 72.00	1/5/6/7	11	Light brown, moist, medium dense, fine SAND, some silt.	GW44957 A-3, SP MC=24.4%

Maine Department of Transportation		Project: Little Pond Bridge #2464 carries Rt. 302 over Little Pond Stream		Boring No.: BB-FLP-102		
US CUSTOMER UNITS		Location: Fryeburg, Maine		WIN: 17872_00		
Operator: C/Gagne/S/Le/Doggett	Elevation (ft.): 399.5	Auger ID/DBI: 5" Solid Stem				
Logged By: B. Willard	Date: NAD88	Sampler: Standard Split Spoon				
Date Start/Finish: 4/14/11-5/3/11	Rig Type: CME 45C	Home Wt./Fall: 140#/30"				
Boring Location: 426+16.8, 7.4 ft Lt.	Drilling Method: Cased Wash Boring	Core Barrel: ND-2"				
Home Efficiency Factor: 0.84	Casing ID/DBI: NW	Water Level#: 5.5 ft bgs.				
Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/> Deflections: S_u = In Situ Field Vane Shear Strength (psf) S_{uL} = Lab Vane Shear Strength (psf) S_v = Split Spoon Sample S_{vL} = Split Spoon Sample S_{vL} = Split Spoon Sample q_u = Unconfined Compressive Strength (psf) q_{uL} = Unconfined Compressive Strength (psf) c_u = Cohesion (psf) c_{uL} = Cohesion (psf) ϕ = Friction Angle (degrees) ϕ_L = Friction Angle (degrees) γ = Unit Weight (pcf) γ_L = Unit Weight (pcf) ρ_w = Water Content (%) ρ_{wL} = Water Content (%) LL = Liquid Limit (%) LL_L = Liquid Limit (%) PI = Plasticity Index (%) PI_L = Plasticity Index (%) IP = Plasticity Index (%) IP_L = Plasticity Index (%) U_c = Compression Index (%) U_{cL} = Compression Index (%) e = Void Ratio e_L = Void Ratio σ_v = Vertical Effective Stress (psf) σ_{vL} = Vertical Effective Stress (psf)						
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Moist. (w/w %)	Visual Description and Remarks	Laboratory Testing Results/ASSTO and Unified Class
15	160	24/15	75.00 - 77.00	11	Light brown, wet, medium dense, silty fine SAND.	GW44958 A-4, ML MC=24.4%
80	170	24/16	80.00 - 82.00	11	Brown, wet, stiff, SILT, some fine sand, trace clay, 5.0 ft running sand.	GW44959 A-4, ML MC=22.4%
85	180	24/16	85.00 - 87.00	17	Grey, wet, medium dense, silty fine SAND, 1.5 ft running sand.	GW44960 A-2-4, SM MC=25.3%
90	190	24/17	90.00 - 92.00	38	Brown, wet, very dense, fine to medium SAND, trace silt, 1.5 ft running sand.	GW44961 A-3, SP MC=23.5%
95	200	24/16	95.00 - 97.00	18	Brown, wet, very stiff, SILT, some fine sand.	GW44962 A-4, ML MC=25.5%
100	210	24/17	100.00 - 102.00	24	Grey-brown, wet, hard, SILT, little fine sand, trace clay.	GW44963 A-4, ML MC=25.5%
105	220	24/18	105.00 - 107.00	26	Grey, wet, hard, SILT, little fine sand, trace clay.	GW44964 A-4, ML MC=25.5%
110	230	24/20	110.00 - 112.00	16	Grey, wet, very stiff, SILT, trace clay, trace fine sand.	GW44965 A-4, ML MC=26.6%
115	240	24/18	115.00 - 117.00	42	Grey, wet, hard, SILT, some clay, trace fine sand in 1/2"-1" layers.	GW44966 A-4, ML MC=25.5%
120	250	24/14	120.00 - 122.00	58	Grey, wet, very dense, fine to coarse SAND, trace gravel, trace silt, 2.0 ft running sand. Roller Cone ahead to 125.0 ft bgs.	GW44967 A-4, ML MC=18.3%
125	260	24/14	125.00 - 127.00	33	Light brown, wet, dense, fine to coarse SAND, little gravel, trace silt, 5.0 ft running sand.	GW44968 A-4, ML MC=11.2%
130	270	24/8	130.00 - 132.00	25	Light brown, wet, dense, fine to coarse SAND, trace silt, trace gravel, 15.0 ft running sand.	GW44969 A-4, ML MC=15.2%
135	MD	24/0	135.00 - 137.00	27	Similar to above, in wash, 5.0 ft running sand.	
140	280	24/18	140.50 - 142.50	25	Light brown, wet, dense, fine to coarse SAND, trace gravel, trace silt. Roller Cone ahead to 150.0 ft bgs.	GW44970 A-3, SP MC=20.3%

Maine Department of Transportation		Project: Little Pond Bridge #2464 carries Rt. 302 over Little Pond Stream		Boring No.: BB-FLP-102		
US CUSTOMER UNITS		Location: Fryeburg, Maine		WIN: 17872_00		
Operator: C/Gagne/S/Le/Doggett	Elevation (ft.): 399.5	Auger ID/DBI: 5" Solid Stem				
Logged By: B. Willard	Date: NAD88	Sampler: Standard Split Spoon				
Date Start/Finish: 4/14/11-5/3/11	Rig Type: CME 45C	Home Wt./Fall: 140#/30"				
Boring Location: 426+16.8, 7.4 ft Lt.	Drilling Method: Cased Wash Boring	Core Barrel: ND-2"				
Home Efficiency Factor: 0.84	Casing ID/DBI: NW	Water Level#: 5.5 ft bgs.				
Hammer Type: Automatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/> Deflections: S_u = In Situ Field Vane Shear Strength (psf) S_{uL} = Lab Vane Shear Strength (psf) S_v = Split Spoon Sample S_{vL} = Split Spoon Sample S_{vL} = Split Spoon Sample q_u = Unconfined Compressive Strength (psf) q_{uL} = Unconfined Compressive Strength (psf) c_u = Cohesion (psf) c_{uL} = Cohesion (psf) ϕ = Friction Angle (degrees) ϕ_L = Friction Angle (degrees) γ = Unit Weight (pcf) γ_L = Unit Weight (pcf) ρ_w = Water Content (%) ρ_{wL} = Water Content (%) LL = Liquid Limit (%) LL_L = Liquid Limit (%) PI = Plasticity Index (%) PI_L = Plasticity Index (%) IP = Plasticity Index (%) IP_L = Plasticity Index (%) U_c = Compression Index (%) U_{cL} = Compression Index (%) e = Void Ratio e_L = Void Ratio σ_v = Vertical Effective Stress (psf) σ_{vL} = Vertical Effective Stress (psf)						
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Moist. (w/w %)	Visual Description and Remarks	Laboratory Testing Results/ASSTO and Unified Class
150	MD	24/0	150.00 - 152.00	354	Similar to above, 5.0 ft running sand, spoon sunk into running sand.	
155	RI	60/57	155.00 - 160.00	800	TILL: 9000 blows for 0.8 ft. Top of Bedrock at Elev. 244.7 ft. RI1 Bedrock: Grey and salmon colored, medium grained, GRANITE with mica and iron staining, joints dipping at approximately 60 degrees (Tillage Planar). Rock Mass Quality = Good. RI1 Core: Times Indicated: 155.0-156.0 ft (2130) 156.0-157.0 ft (2100) 157.0-158.0 ft (2100) 158.0-159.0 ft (2135) 159.0-160.0 ft (2111) 95% Recovery	
160					Bottom of Exploration at 160.00 feet below ground surface.	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG
OXFORD COUNTY

BORING LOGS

WIN 17872.00
BRIDGE NO. 2464

SHEET NUMBER
9
OF 24

PROJ. MANAGER	MAP	BY	DATE
DESIGN-DETAILED	K.MAGUIRE	T.WHITE	JUN 2011
CHECKED-REVIEWED			
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

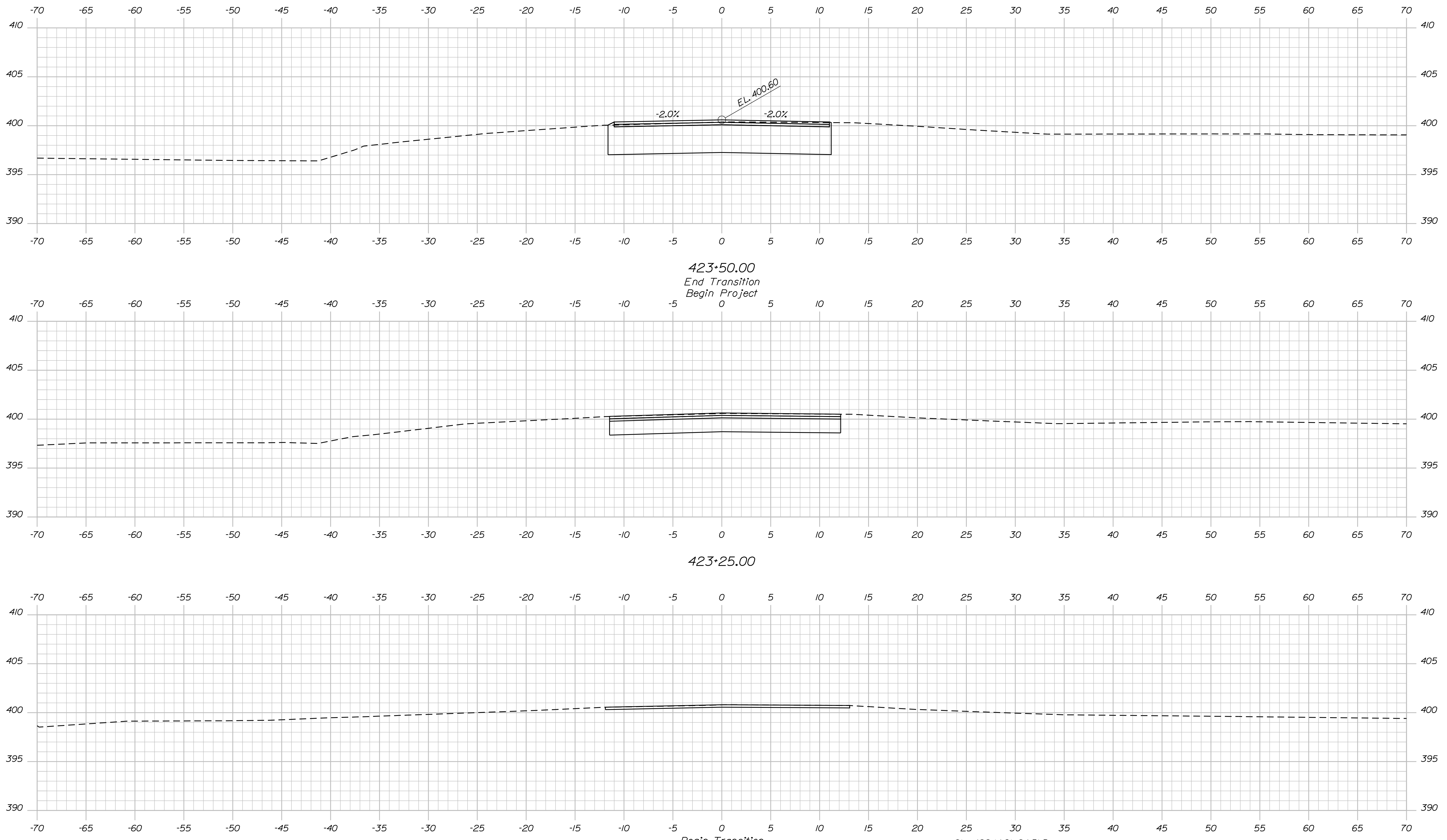
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P.E. NUMBER
DATE

Date: 12/29/2011

Username: briani.nichols

Division: BRIDGE

Filename: ... \MST\A010_Xsect_423-00_001.dgn



423+50.00
End Transition
Begin Project

423+25.00

Begin Transition
423+00.00

Sta. 422+14.91, 24.5' R
Install Utility Pole 572S/35/4

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
WIN
17872.00
BRIDGE NO. 2464
BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
CHECKED-REVIEWED	R. NAJOS	AN	JUN 2011
DESIGNS-DETAILED		BN	
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
P.E. NUMBER
DATE

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG OXFORD COUNTY
CROSS SECTIONS

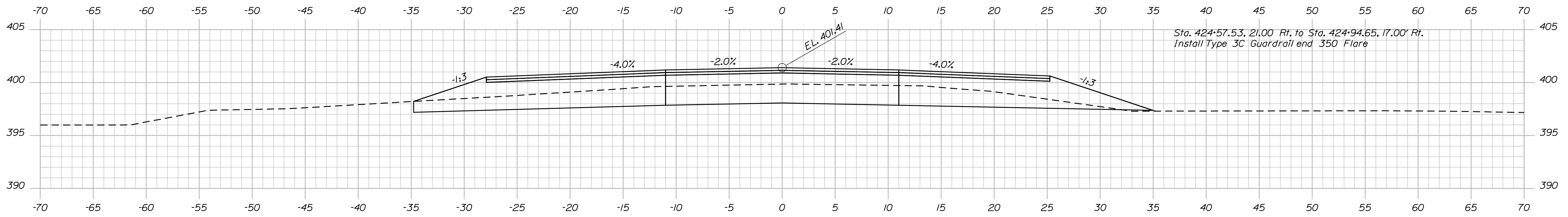
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OF 24

Date: 12/29/2011

Username: briani_jnichols

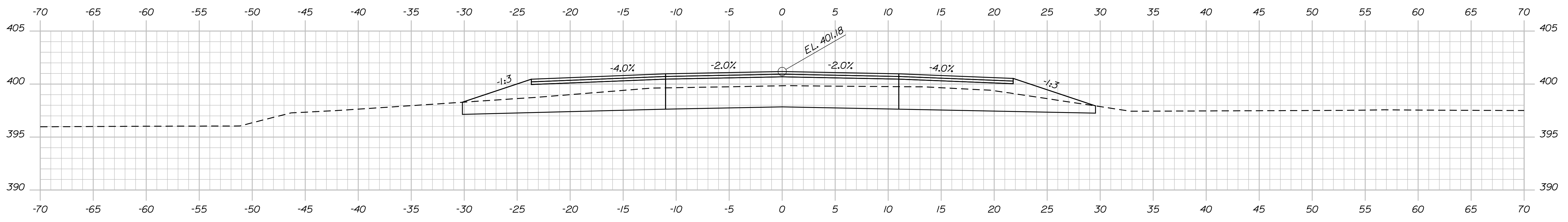
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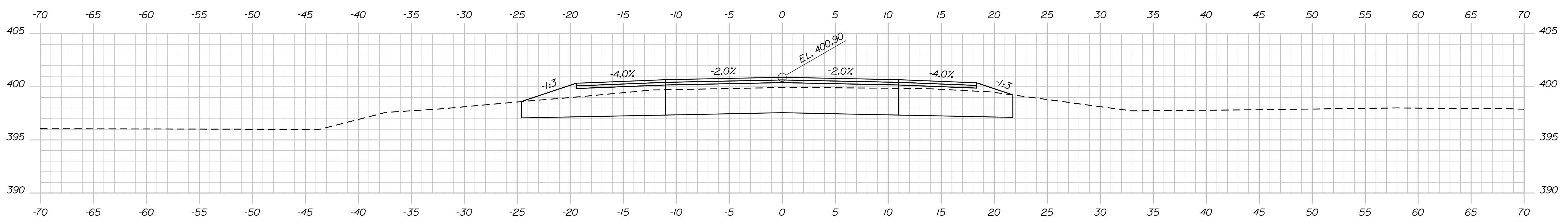


424+50.00

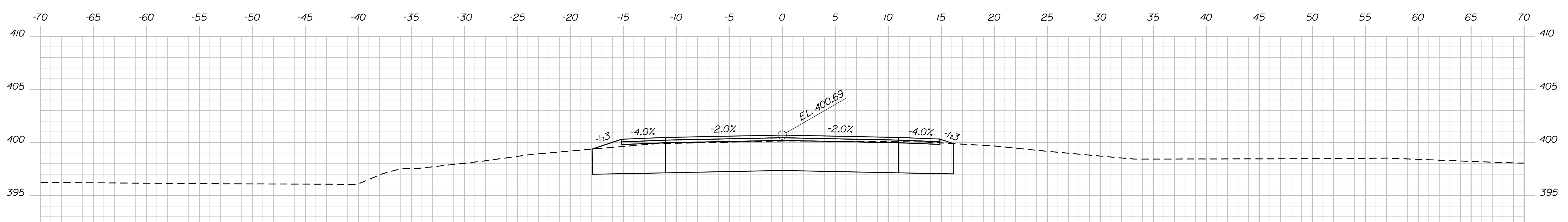
Sta. 424+57.53, 21.00' Ft. to Sta. 424+94.65, 17.00' Ft.
Install Type 3C Guardrail end 350 Flare



424+25.00



424+00.00



423+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
BRIDGE NO. 2464
WIN
17872.00
BRIDGE PLANS

DESIGN DETAILED	BY	DATE
CHECKED-REVIEWED	ADN	JUN 2011
DESIGNS DETAILED	BN	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

MAP	SIGNATURE
PROJ. MANAGER	P.E. NUMBER
	DATE

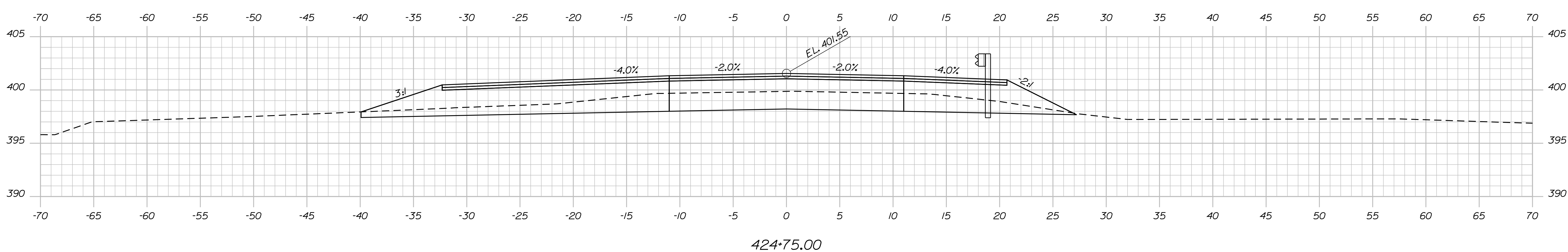
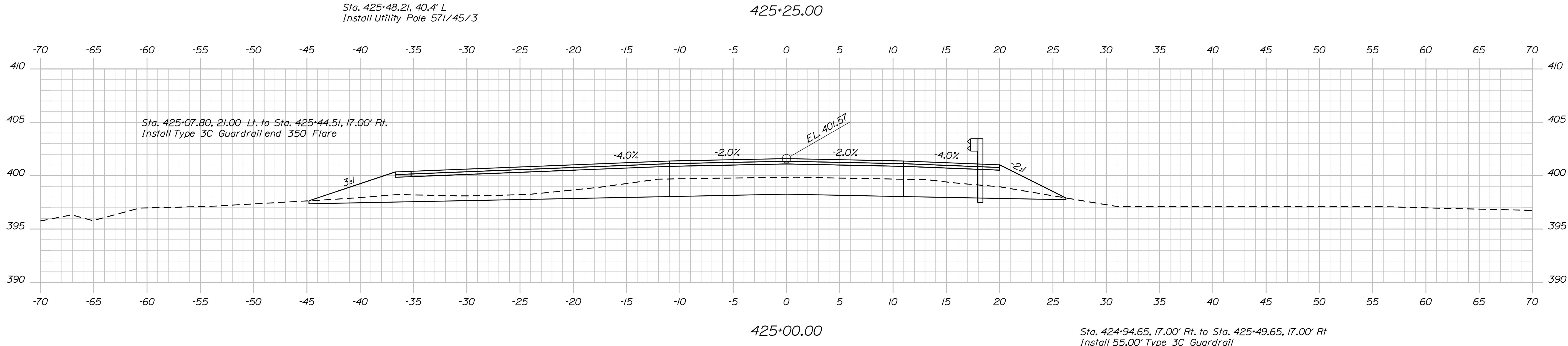
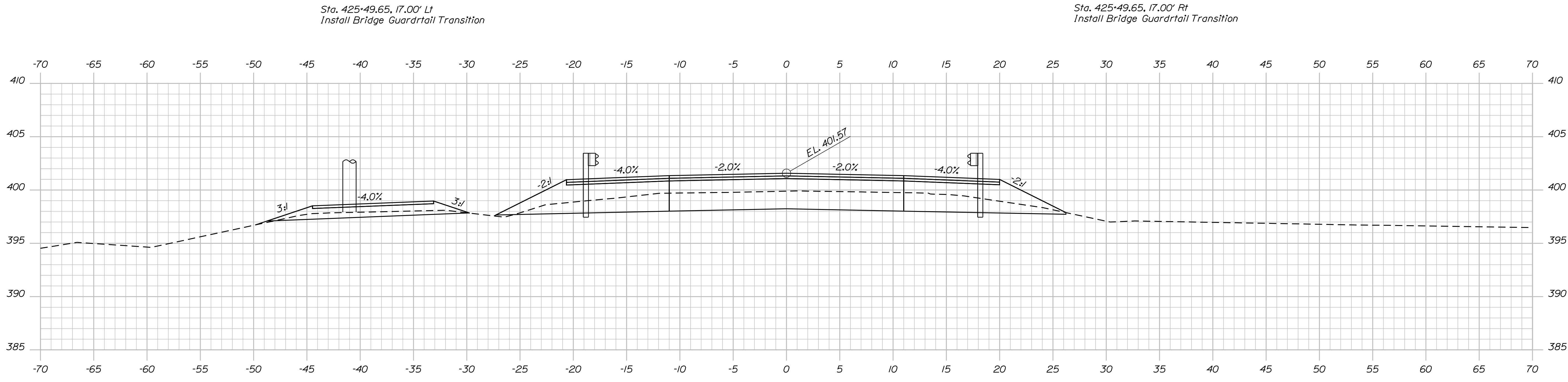
LITTLE POND BRIDGE
LITTLE POND STREAM
OXFORD COUNTY
FRYEBURG
CROSS SECTIONS

SHEET NUMBER
11
OF 24

Date: 12/29/2011

Username: briani.jrichols

Filename: ... \MSTA\012_Xsect_424+75_003.dgn Division: BRIDGE



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
BRIDGE NO. 2464
WIN
17872.00
BRIDGE PLANS

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

MAP	BY
R. NAQUIS	ADN
	BN

LITTLE POND BRIDGE
LITTLE POND STREAM
OXFORD COUNTY
FRYEBURG
CROSS SECTIONS

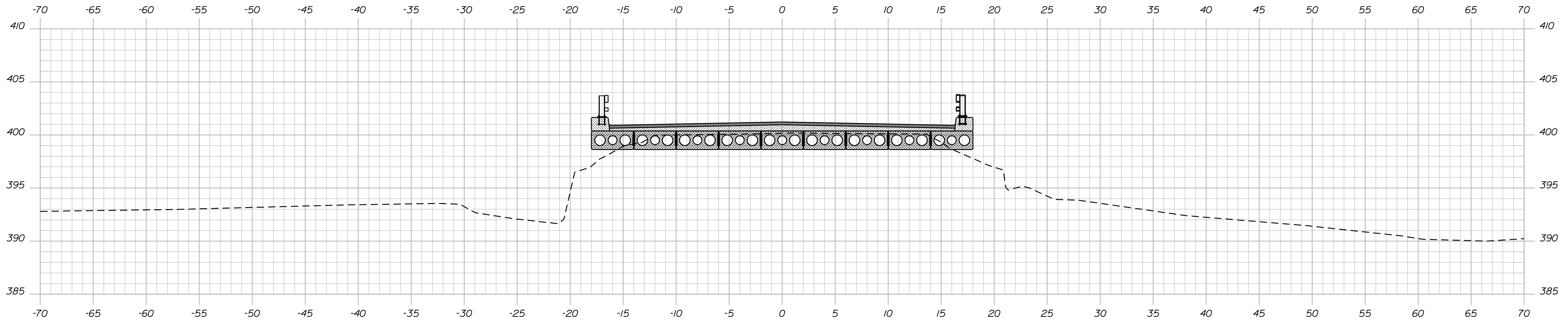
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OF 24

Date: 12/29/2011

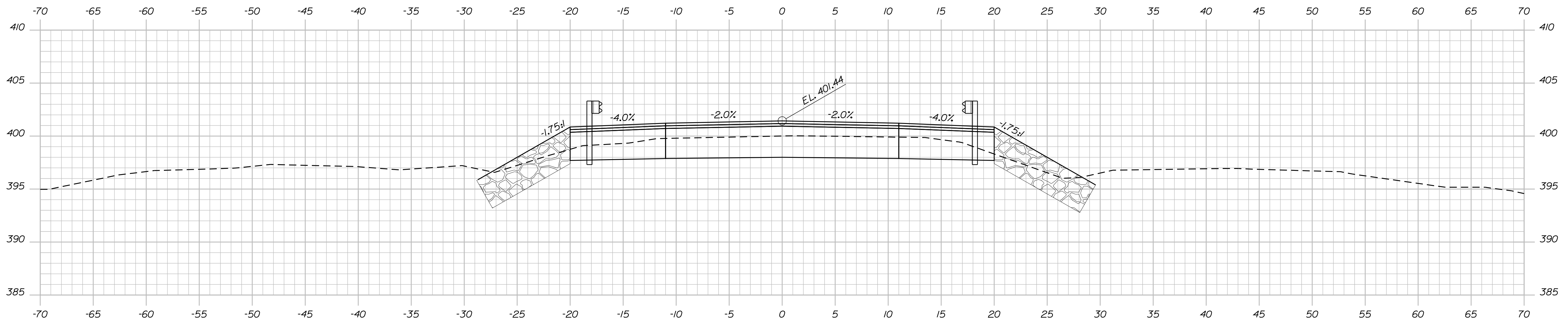
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Division: BRIDGE

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425+75.00



425+50.00

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
 BRIDGE NO. 2464 WIN 17872.00
 BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN-DETAILED	R. NAJOS	ACN	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
 LITTLE POND STREAM
 OXFORD COUNTY
 FRYEBURG
CROSS SECTIONS

SHEET NUMBER
13
 OF 24

Date: 12/29/2011

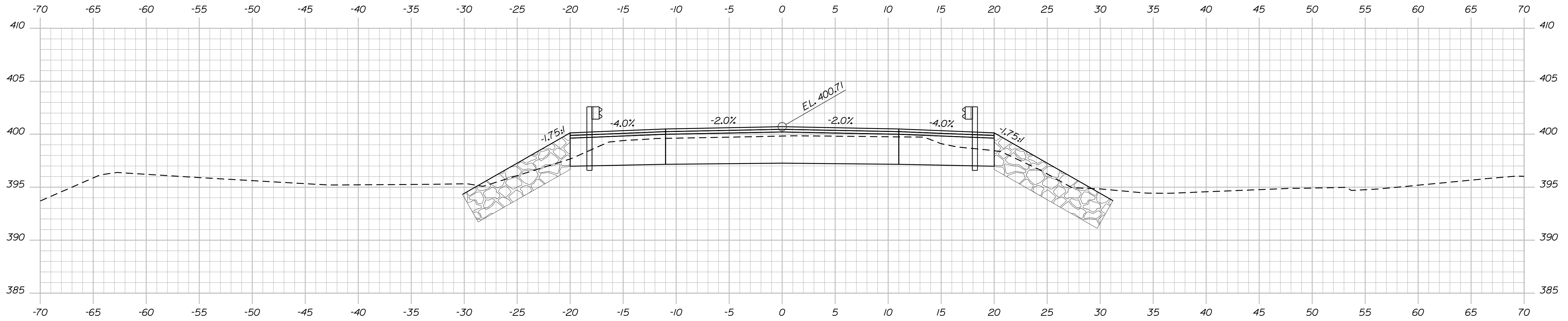
Username: briani.j.nichols

Division: BRIDGE

Filename: ... \MSTA\014_Xsect_426-00_005.dgn

Sta. 426+31.95, 17.00' Lt. to Sta. 427+11.95, 17.00' Lt.
Install 80.00' Type 3C Guardrail

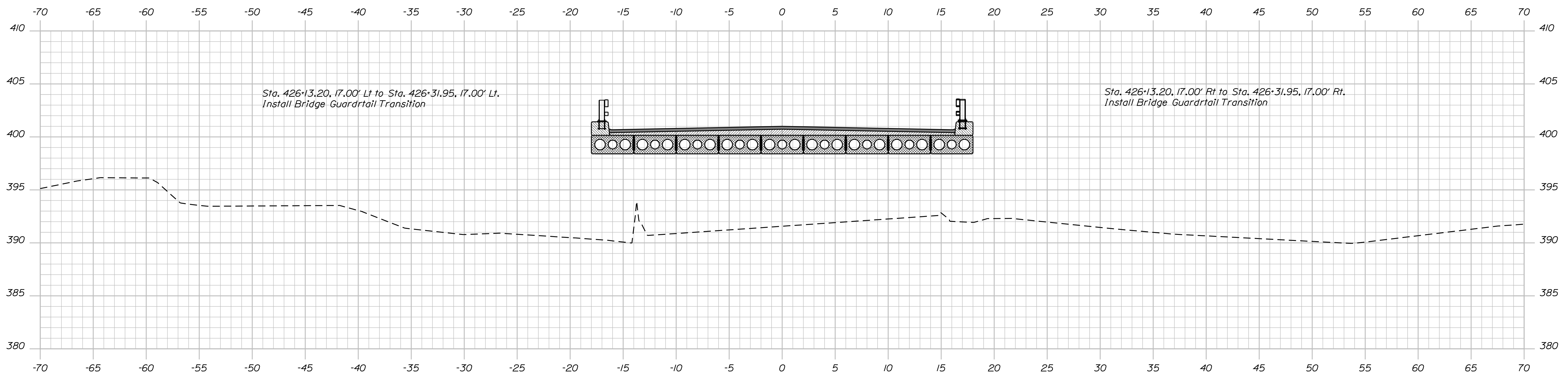
Sta. 426+31.95, 17.00' Rt. to Sta. 426+86.95, 17.00' Rt.
Install 55.00' Type 3C Guardrail



426+25.00

Sta. 426+13.20, 17.00' Lt to Sta. 426+31.95, 17.00' Lt.
Install Bridge Guardrail Transition

Sta. 426+13.20, 17.00' Rt to Sta. 426+31.95, 17.00' Rt.
Install Bridge Guardrail Transition



426+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
BRIDGE NO. 2464 WIN 17872.00
BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN DETAILED	R. NAJUS	ADN	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG OXFORD COUNTY
CROSS SECTIONS

SHEET NUMBER
14
OF 24

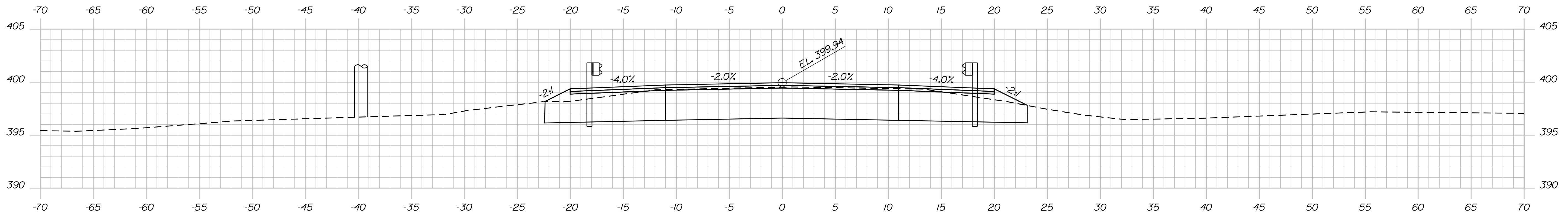
Date: 12/29/2011

Username: briam_jnichols

Division: BRIDGE

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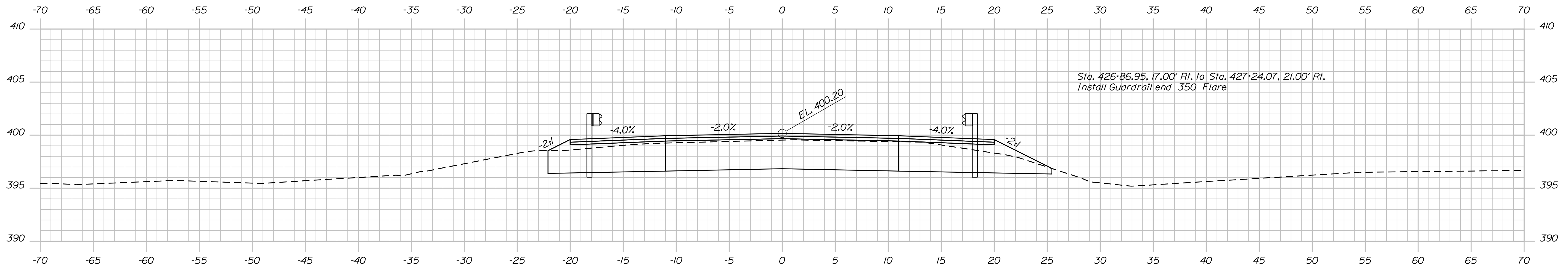
Sta. 427+11.95, 17.00' Lt. to Sta. 427+49.07, 21.00' Lt.
Install Type 3C Guardrail end 350 flare



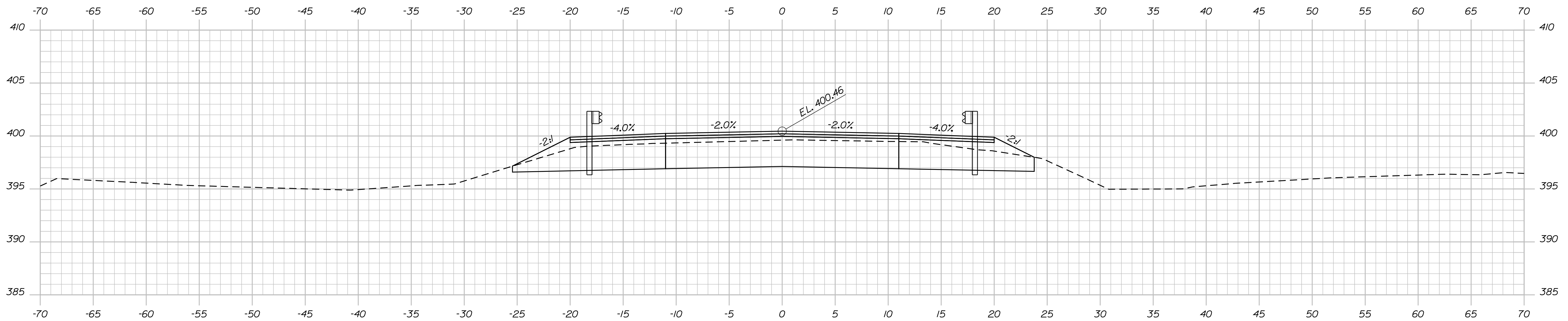
Sta. 427+24.59, 39.1' L
Install Utility Pole 570/45/3
Sta. 427+21.61, 48.4' L
Install Anchor

427+00.00

Sta. 426+86.95, 17.00' Rt. to Sta. 427+24.07, 21.00' Rt.
Install Guardrail end 350 Flare



426+75.00



426+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
WIN
17872.00
BRIDGE NO. 2464
BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN DETAILED	R. NAQUIS	ADN	JUN 2011
CHECKED/REVIEWED		BN	
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG OXFORD COUNTY
CROSS SECTIONS

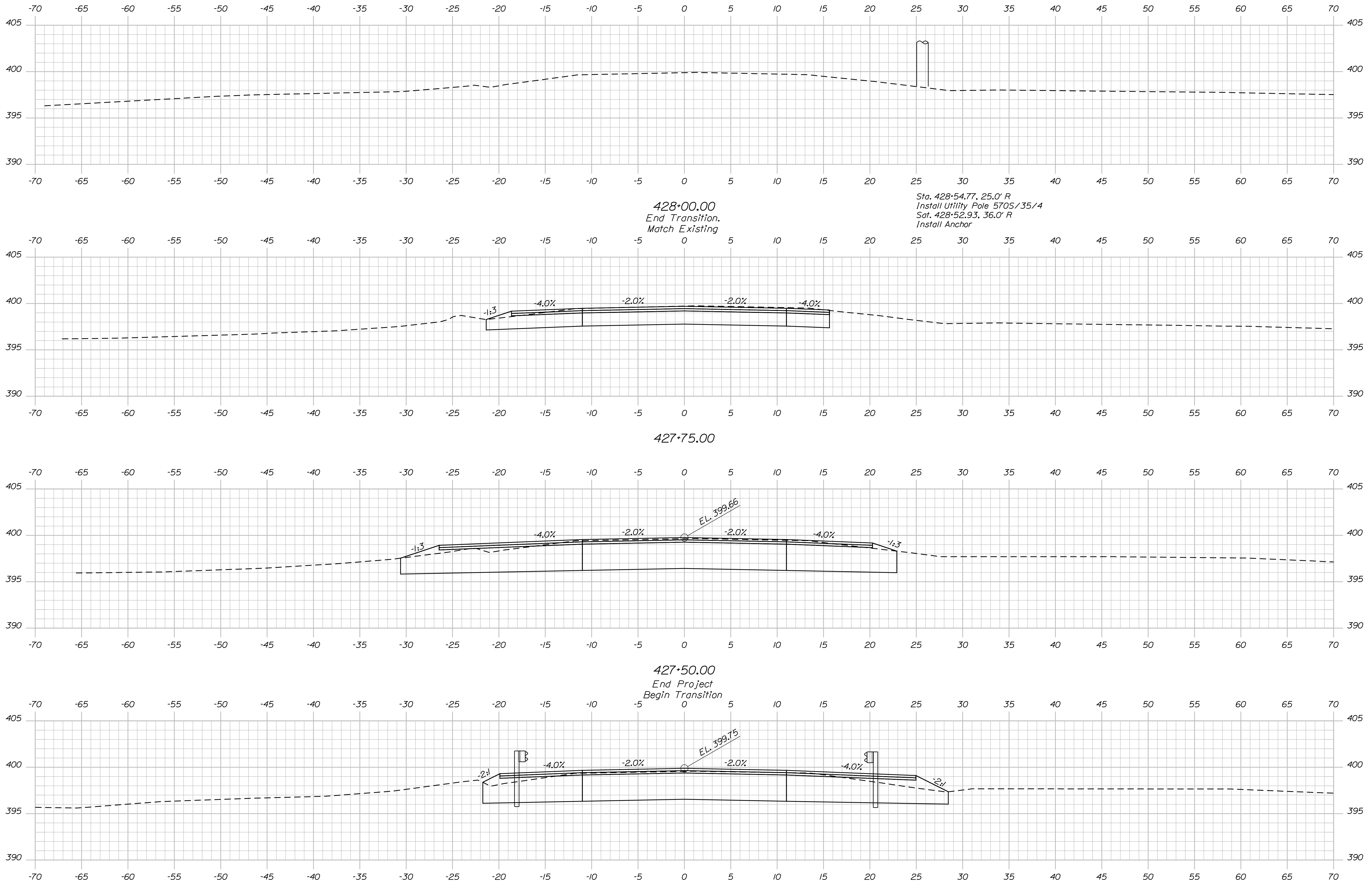
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15
OF 24

Date: 12/29/2011

Username: briam_jnichols

Division: BRIDGE

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
BRIDGE NO. 2464
WIN
17872.00
BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN DETAILED	R. NAJOS	AON	JUN 2011
CHECKED-REVIEWED		BN	
DESIGNS DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
LITTLE POND STREAM
OXFORD COUNTY
FRYEBURG
CROSS SECTIONS

SHEET NUMBER
16
OF 24

Date: 12/29/2011

Username: brian.j.nichols

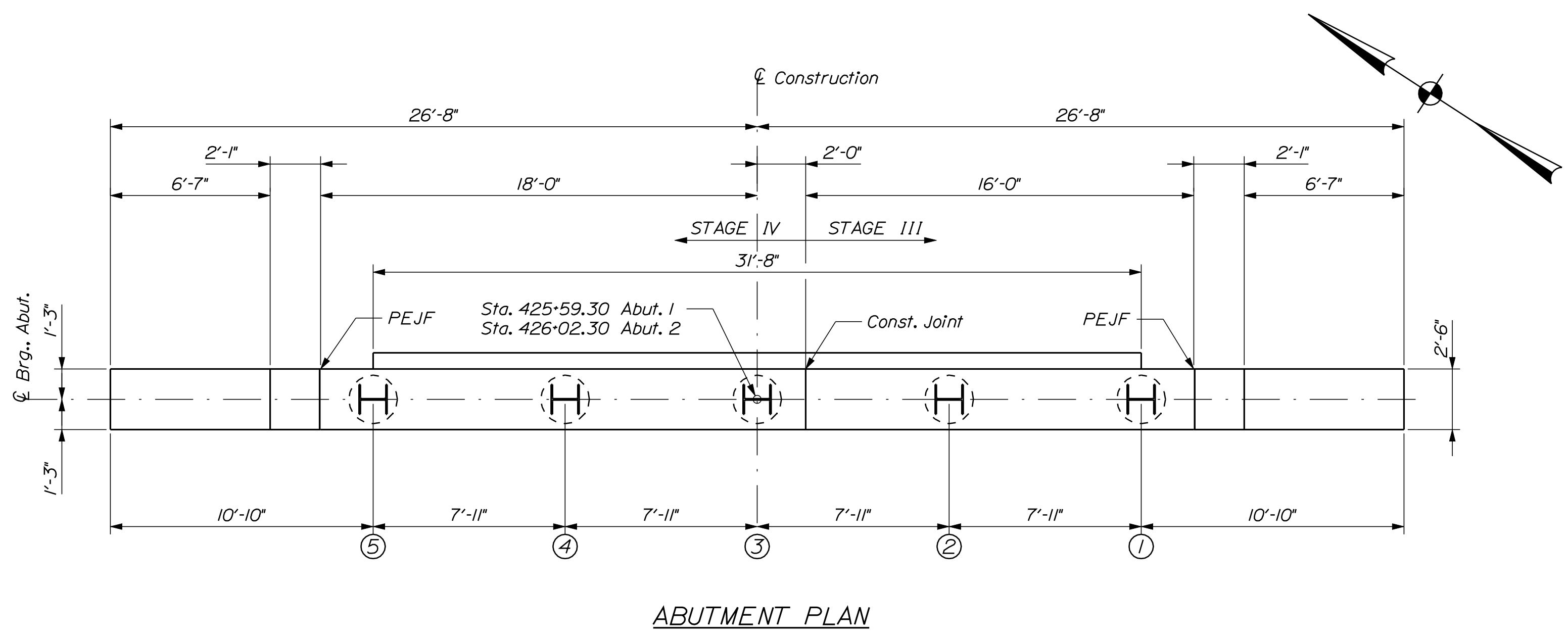
Division: BRIDGE

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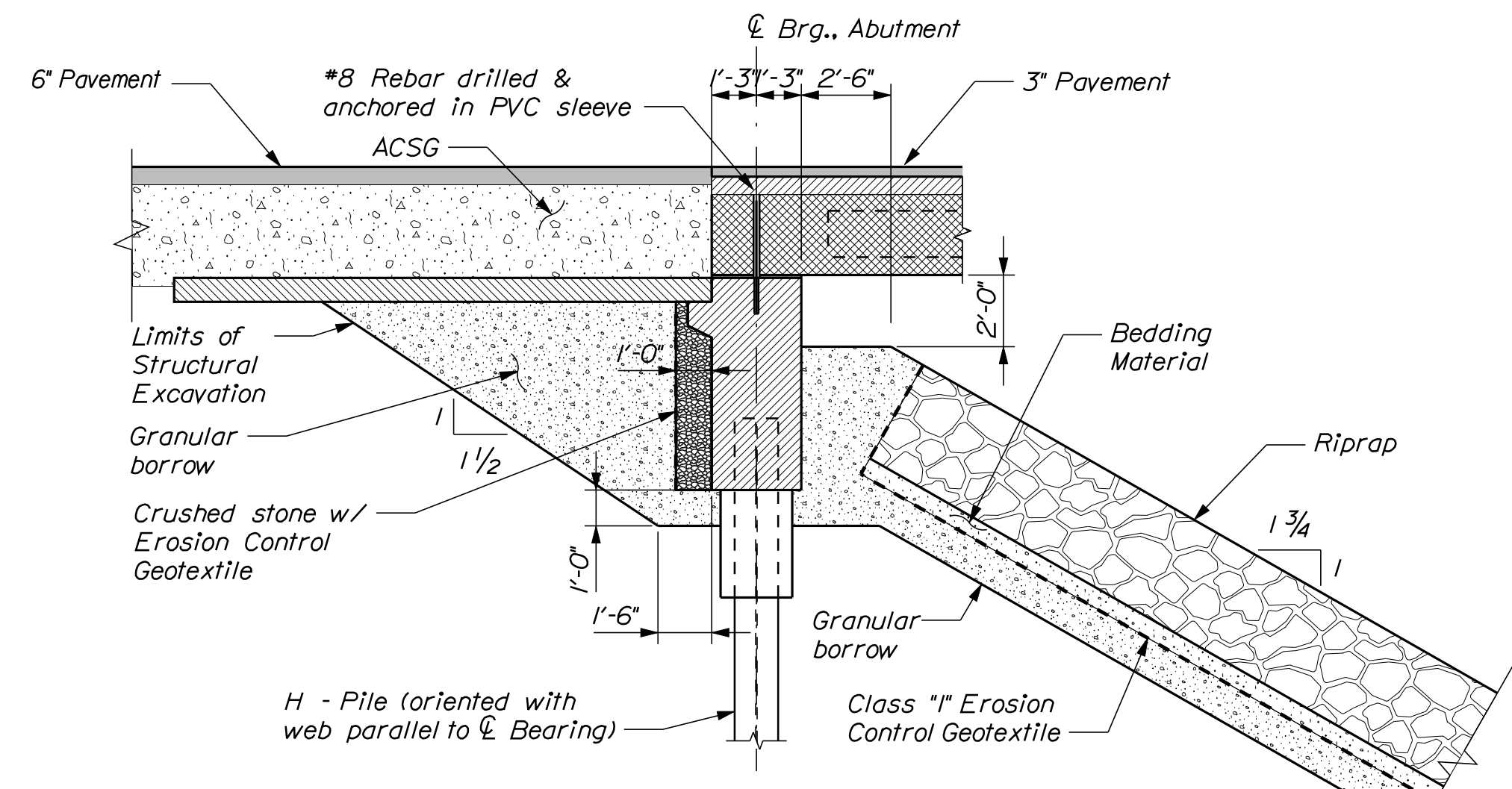
PROJ. MANAGER	MAP	BY	DATE
DESIGN DETAILED	R. NAJOS	ADN	JUN 2011
CHECKED/REVIEWED		BN	
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG OXFORD COUNTY
ABUTMENT PLANS

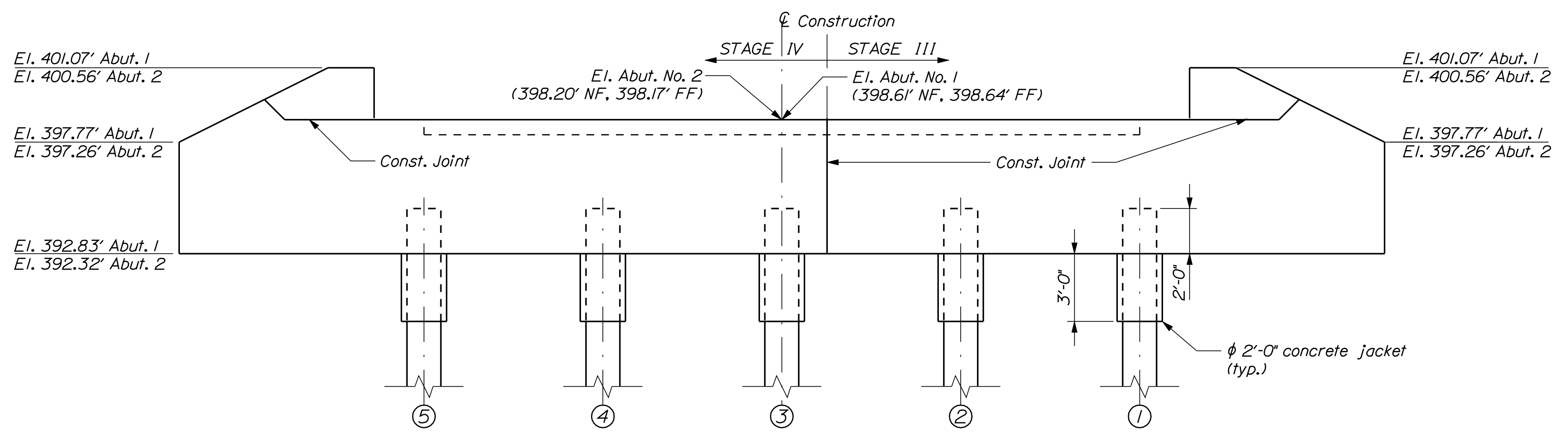
SHEET NUMBER
17
OF 24



ABUTMENT PLAN

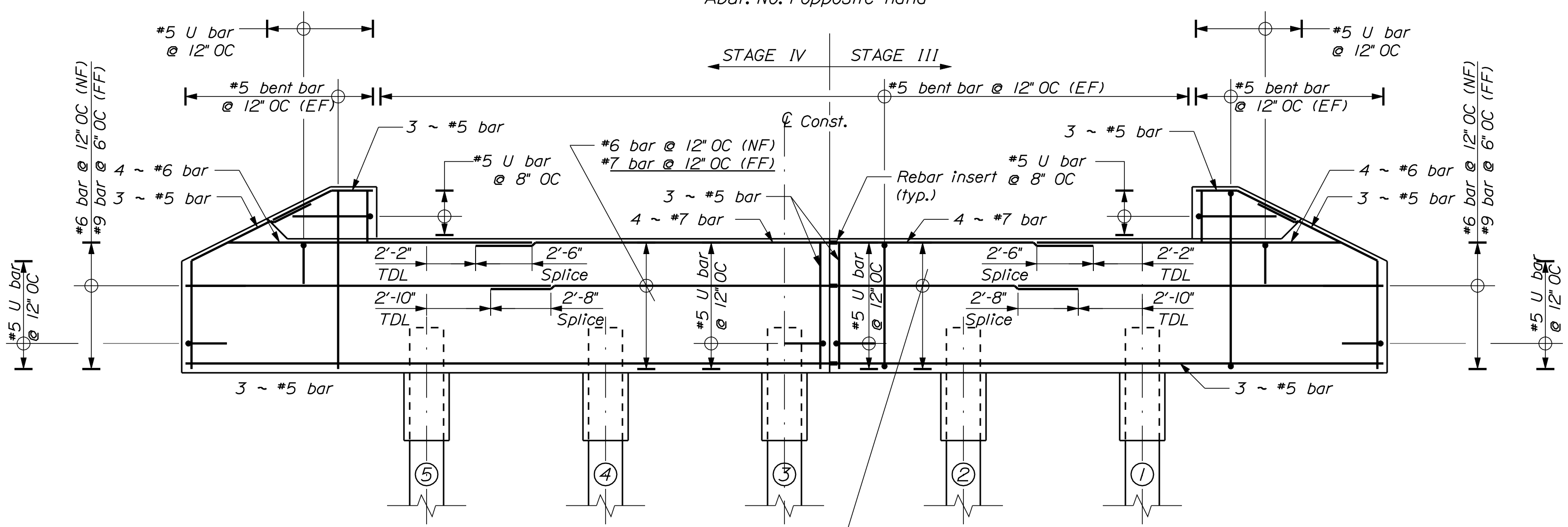


ABUTMENT EMBANKMENT DETAIL



ABUTMENT ELEVATION

Abut. No. 2 shown.
Abut. No. 1 opposite hand



ABUTMENT REBAR LAYOUT

Abut. No. 2 shown.
Abut. No. 1 opposite hand

ABUTMENT NOTES

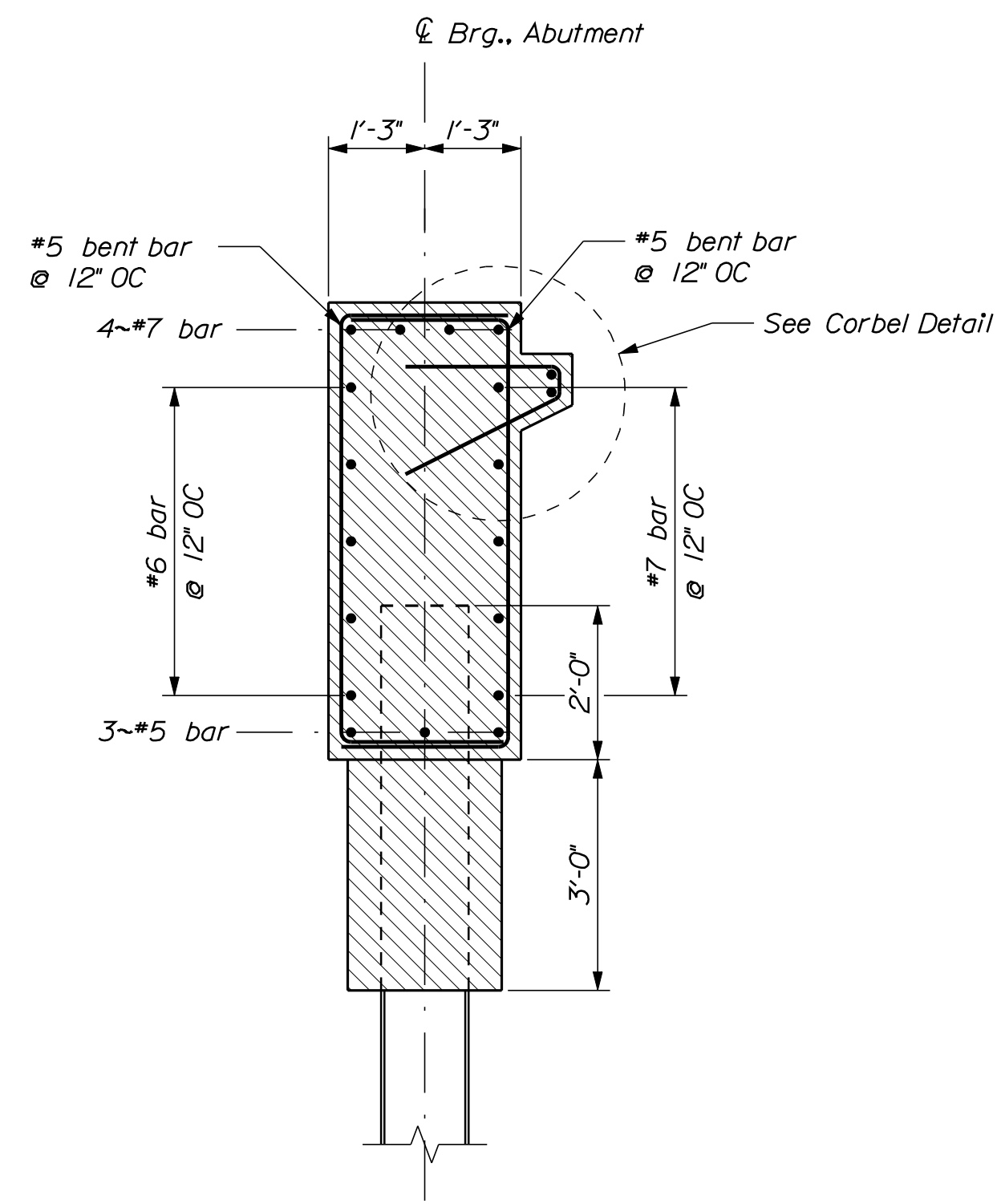
1. Structural Earth Excavation, Abutments and Retaining Walls, required more than 12 inches below the bottom of the structure, will be paid for in accordance with Standard Specifications Section 206, Structural Excavation.
2. Reinforcing steel shall have a concrete cover of 3 inches in the abutment and wingwalls.
3. Place 1 ft column of crushed stone directly behind the abutments. See above abutment detail
4. To ensure an accurate match with the superstructure, the parapet portions of the wingwalls shall be placed after erection of the precast units.
5. Provide 3 additional stirrups; cast with the voided slabs in the curbs at each Transition Barrier location.
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.
7. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
8. Place non woven geotextile between the crushed stone and granular fill behind the abutments
9. Abutments and wingwalls shall be backfilled with Granular Borrow. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.
10. The contractor will be responsible for supplying the rebar details and schedule.

Date: 12/29/2011

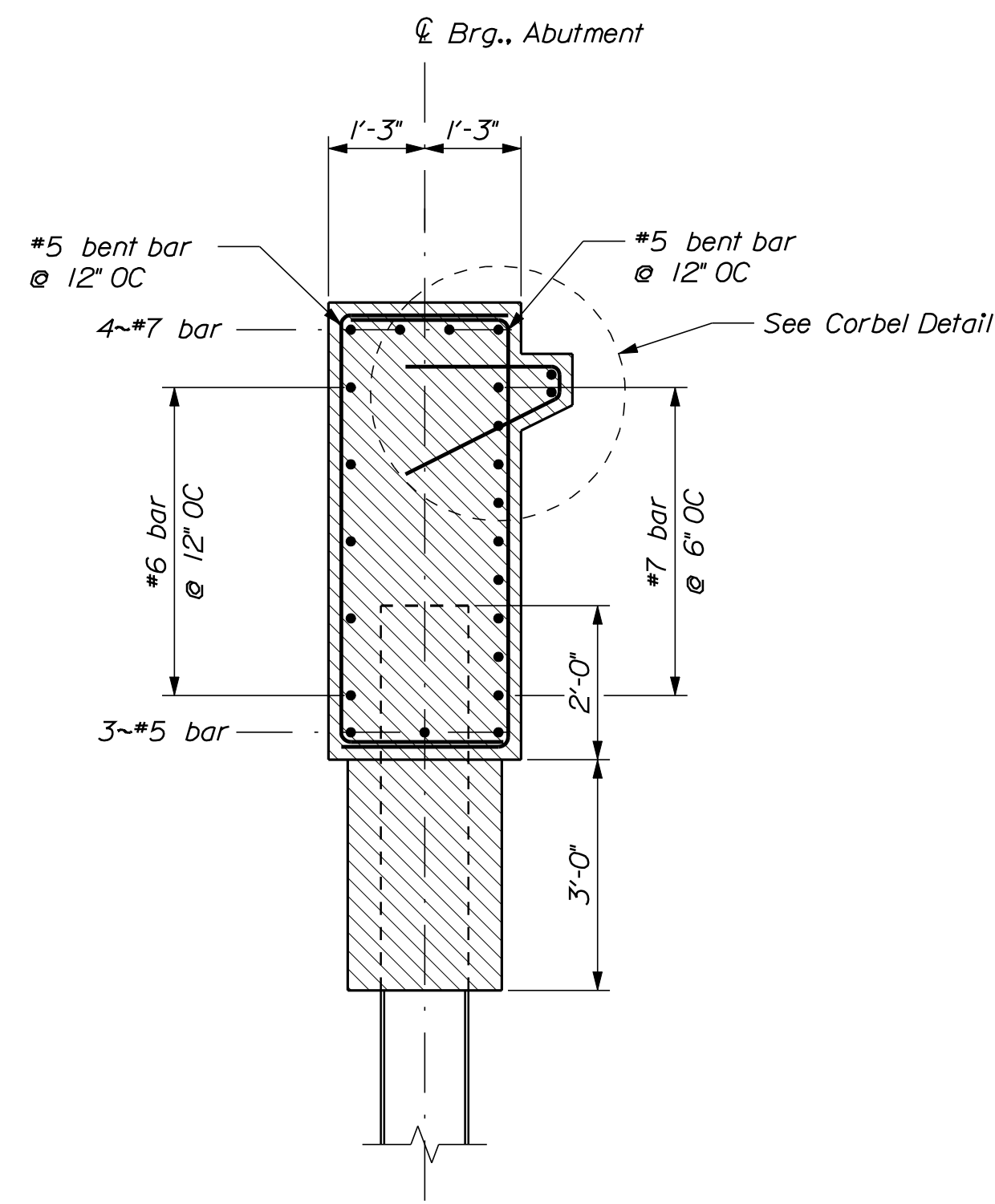
Username: brian.j.nichols

Division: BRIDGE

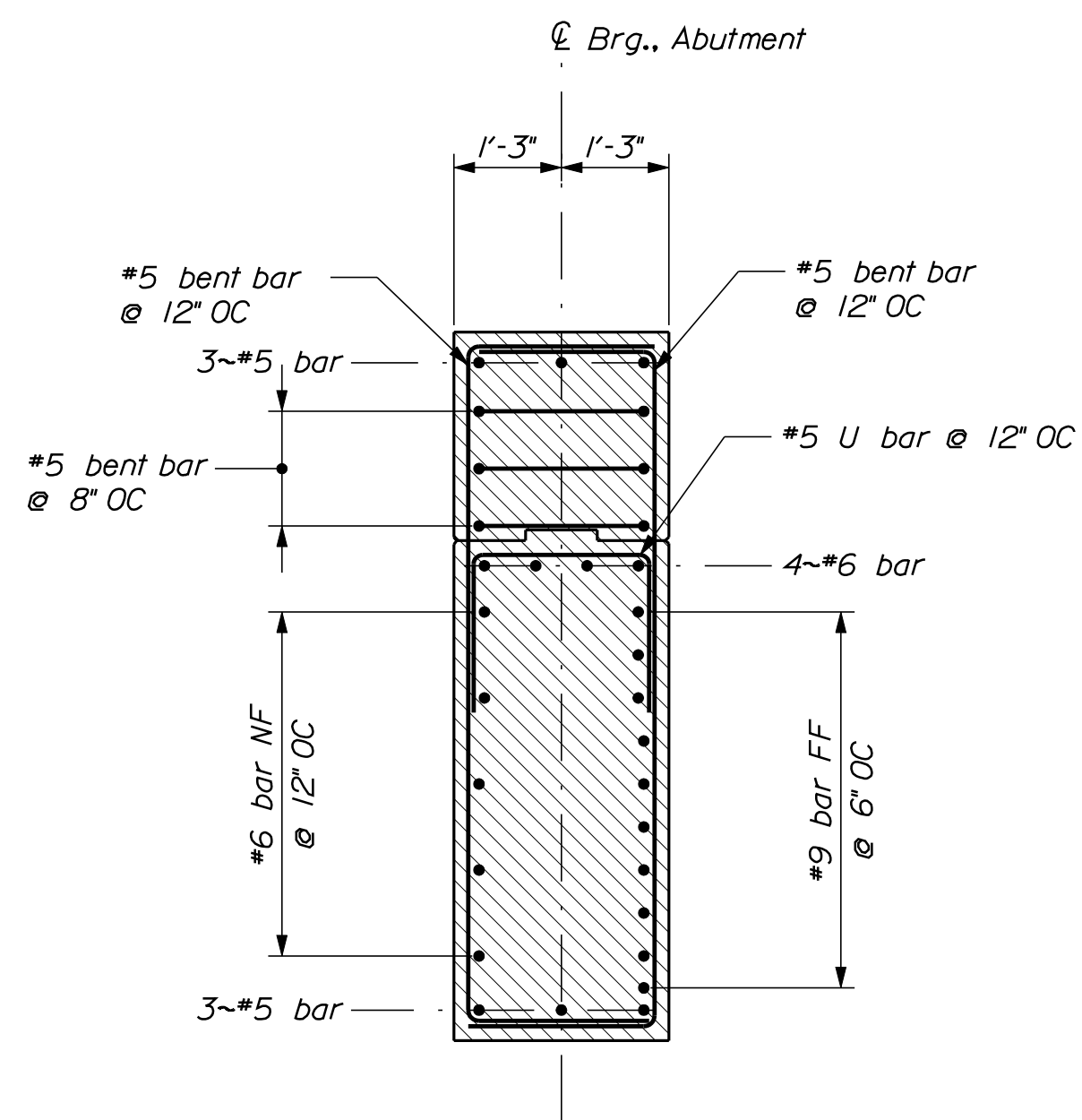
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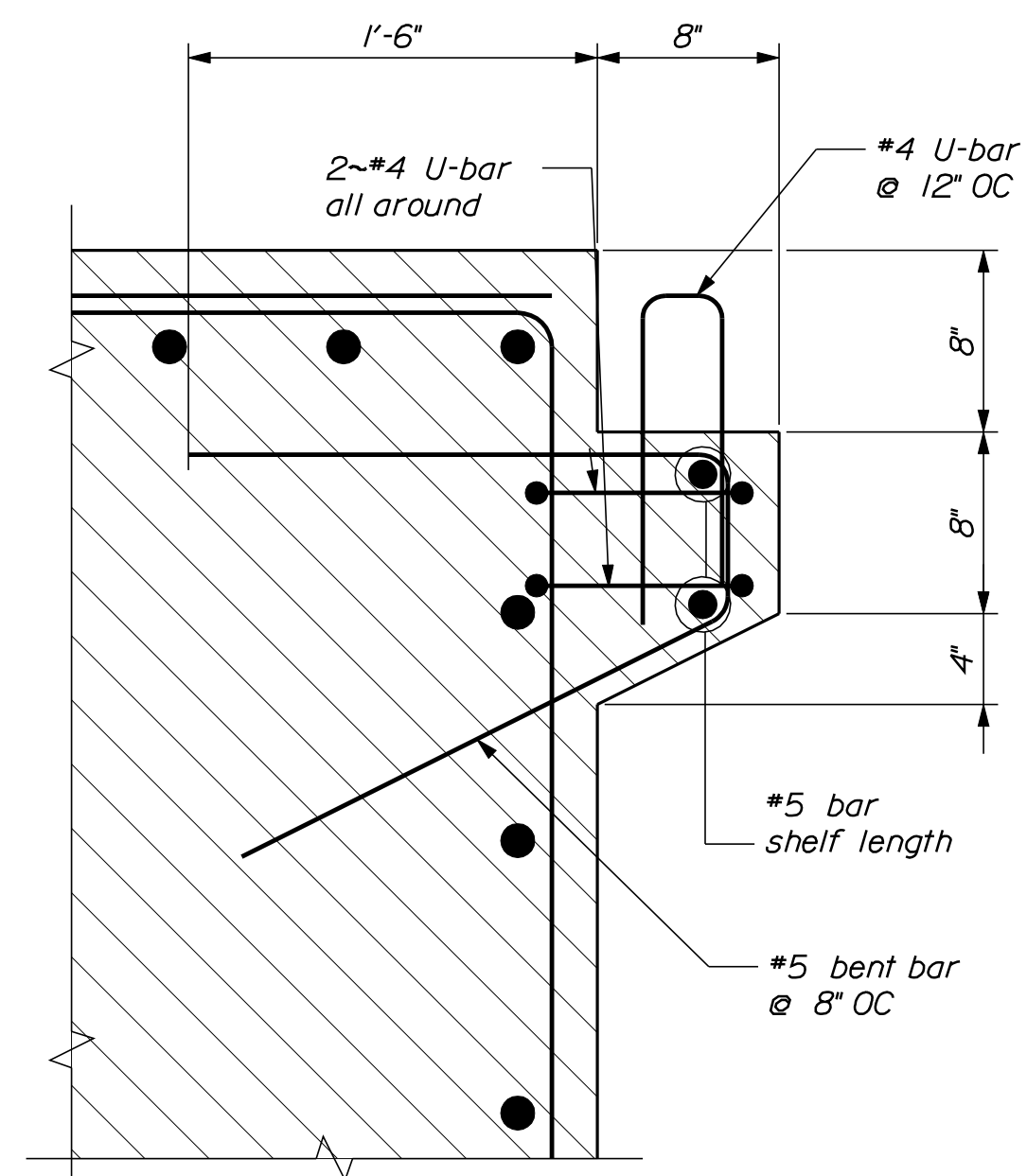
STAGE IV ABUTMENT SECTION



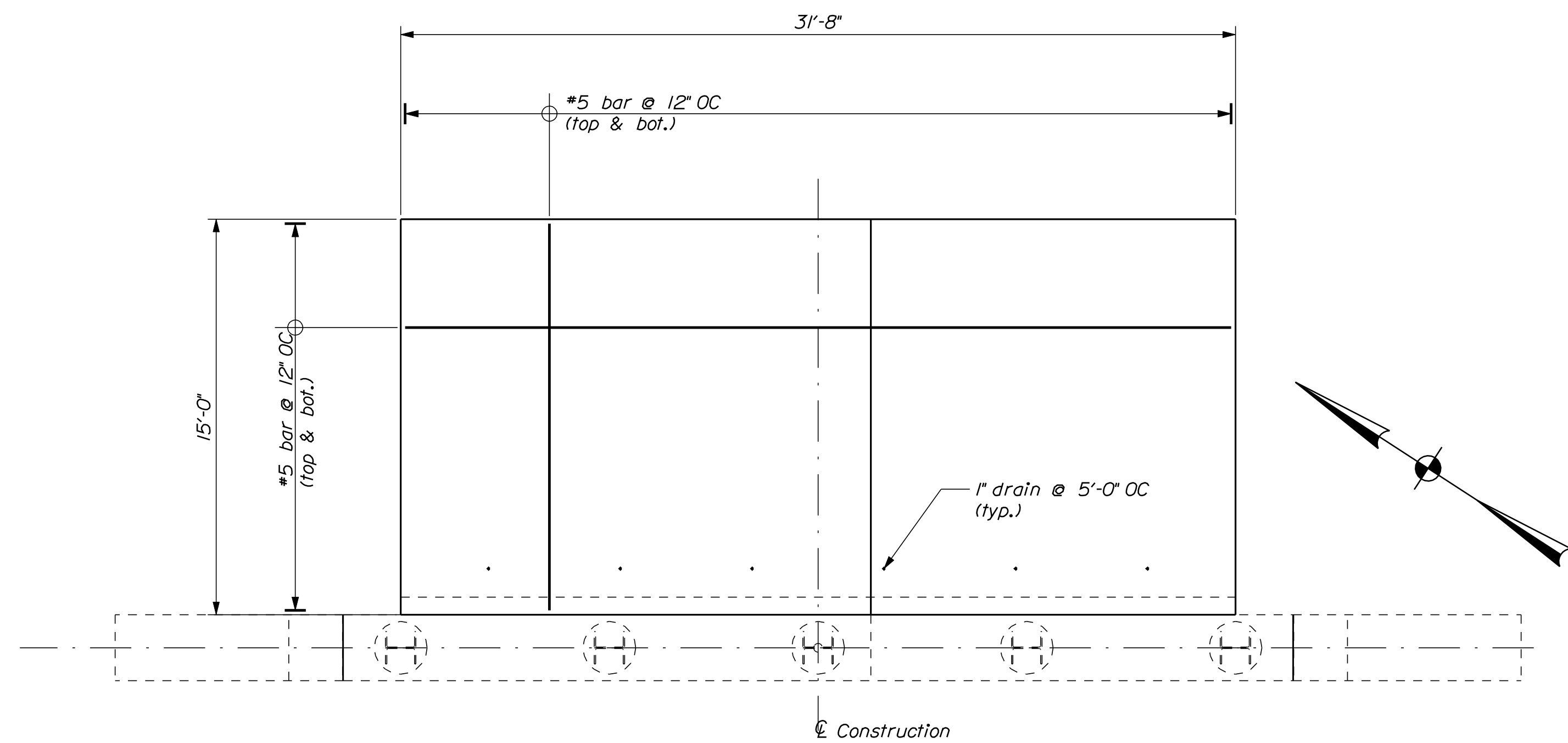
STAGE III ABUTMENT SECTION



WINGWALL SECTION
(typical)



CORBEL DETAIL



APPROACH SLAB PLAN
(typical)

PILE NOTES

- The maximum factored pile load is 385 kips
- H-pile material shall be ASTM A 572, Grade 50; H pile tips shall be HP-77600-B ASTM A27 65/35 or higher strength grade
- Estimate of piles required:
 Abutment No. 1: 5 ~ HP 14x89 @ 156 feet each
 Abutment No. 2: 5 ~ HP 14x89 @ 153 feet each
- All piles shall be equipped with a pile tip in accordance with Standard Specifications Section 501.10, Prefabricated Pile Tips.
- Piles shall not be out of position shown by more than 2 inches in any direction.
- 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. The stopping criteria shall include the blows per inch and the number of 1-in. intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to Item No. 501.92, Pile Driving Equipment Mobilization.
- The Contractor shall perform one dynamic load test for each abutment 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. The dynamic test shall be performed on pile 2 of stage III construction.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1787(200)X

BRIDGE NO. 2464 WIN 17872.00 BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
DESIGN-DETAILED	R. NAJUS	ADN	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

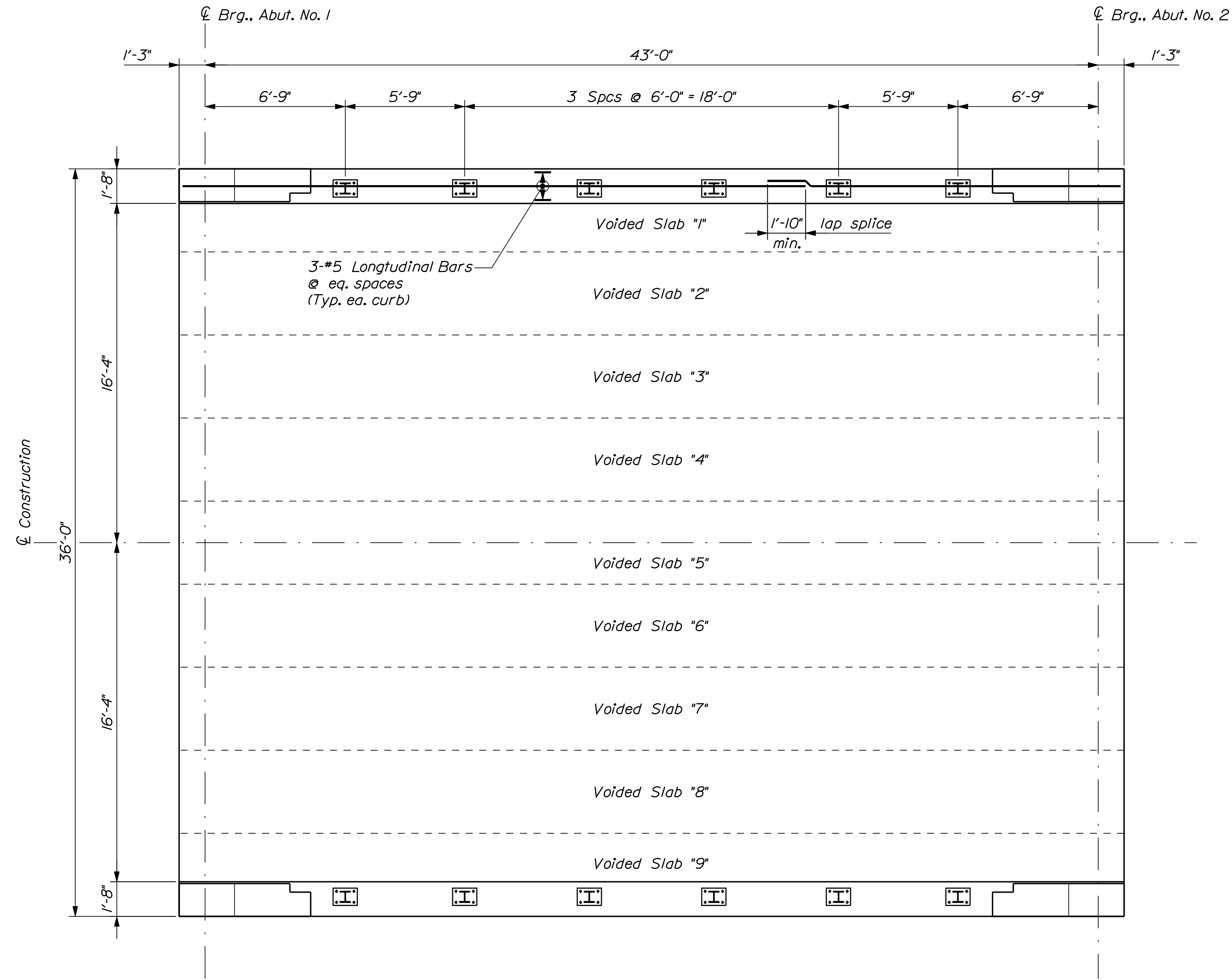
LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG OXFORD COUNTY

ABUTMENT DETAILS

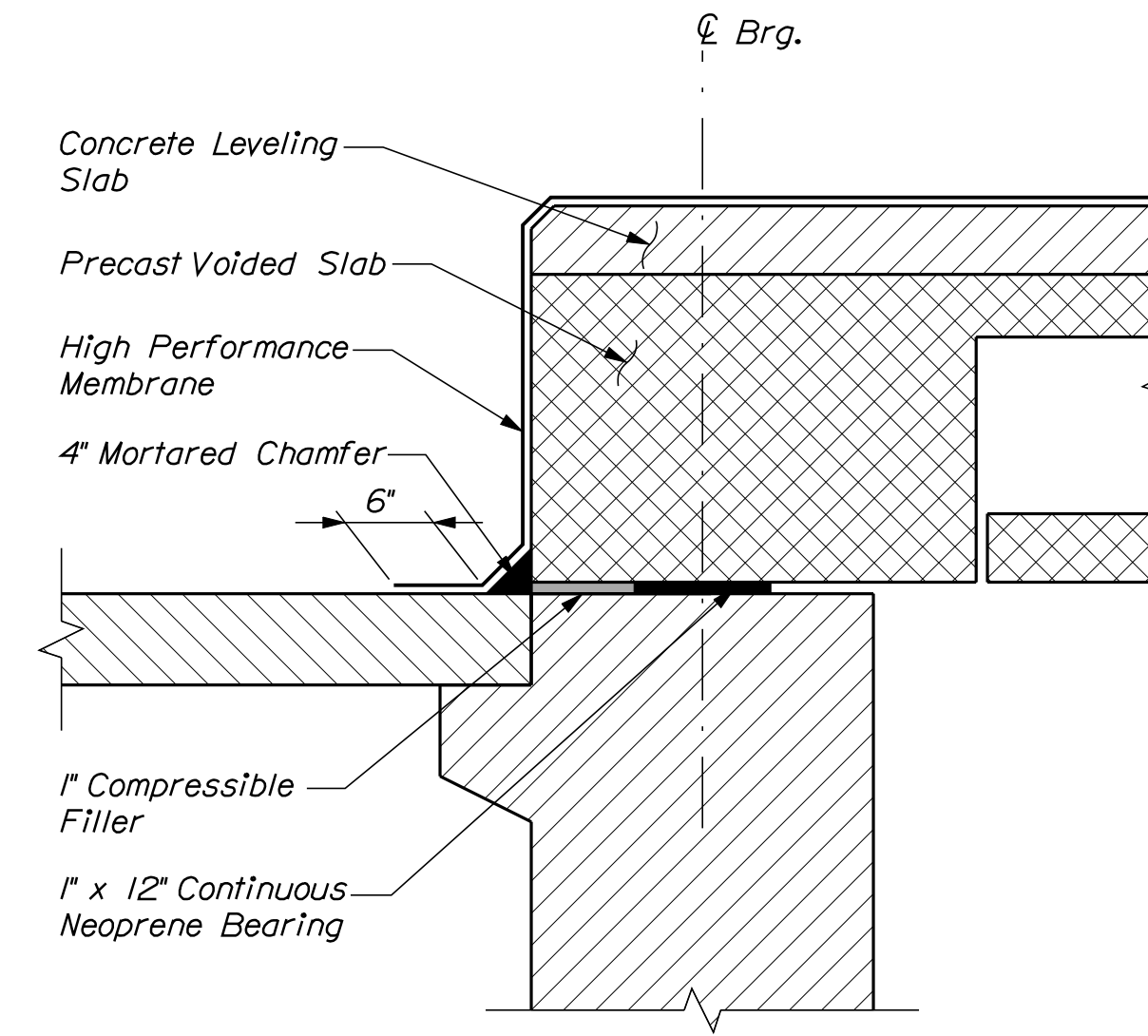
SHEET NUMBER

18

OF 24



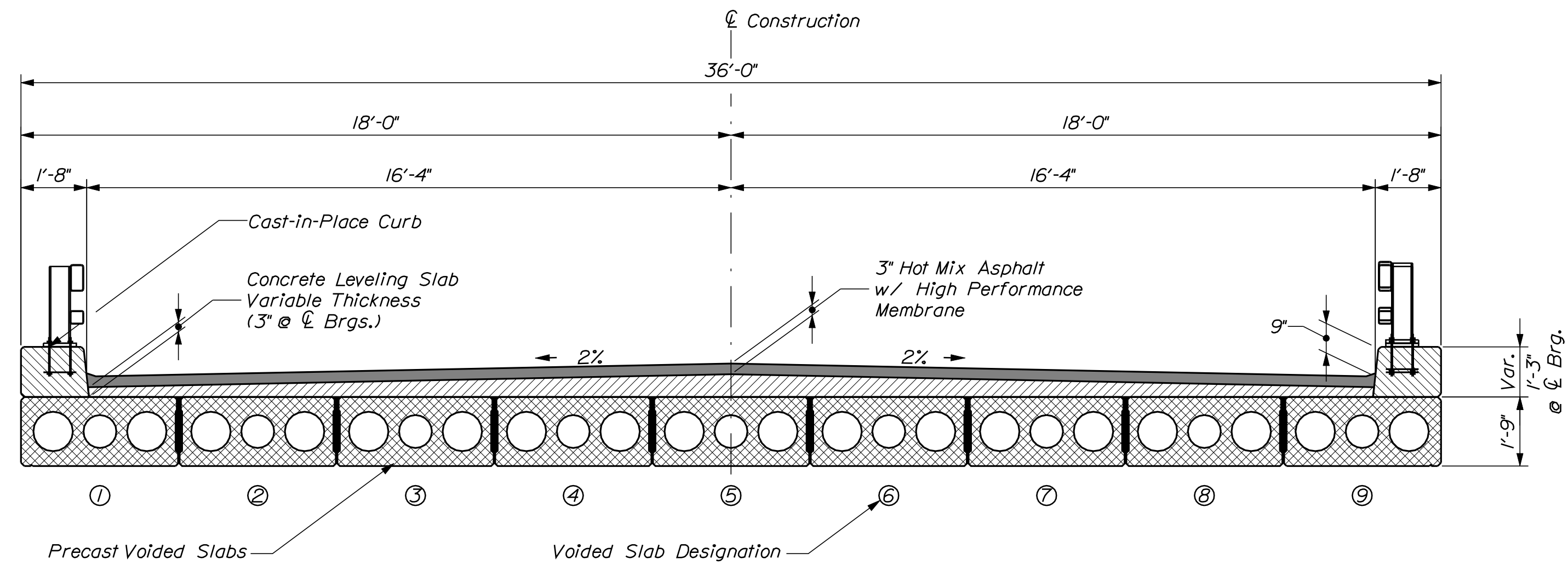
SUPERSTRUCTURE PLAN



END OF SLAB DETAIL

SUPERSTRUCTURE NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
2. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
3. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb or sidewalk concrete.



TRANSVERSE BRIDGE SECTION

PROJ. MANAGER	MAP	BY	DATE
DESIGN-DETAILED	R. NAOUS	AON	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LITTLE POND BRIDGE
LITTLE POND STREAM
OXFORD COUNTY
FRYEBURG
SUPERSTRUCTURE PLAN

SHEET NUMBER

19

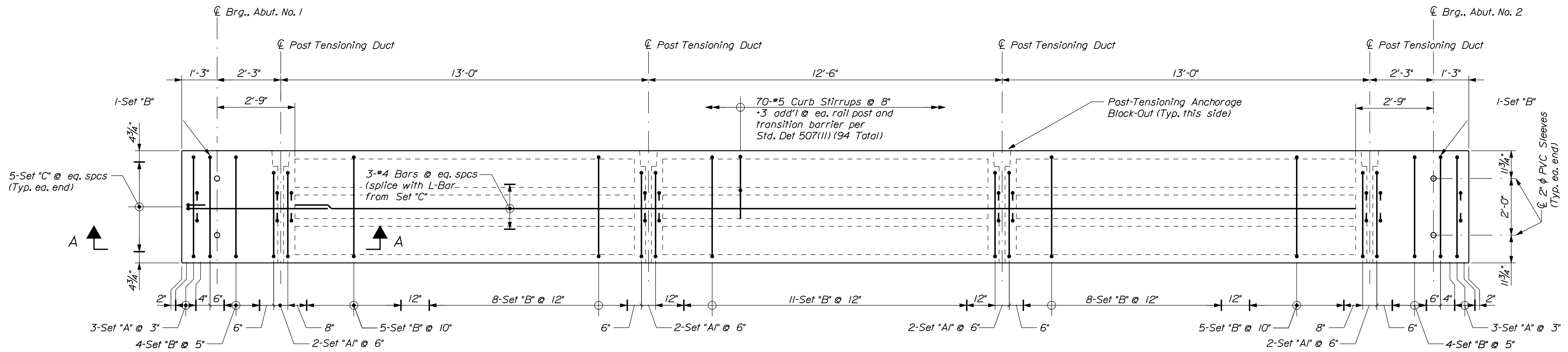
OF 24

Date: 12/29/2011

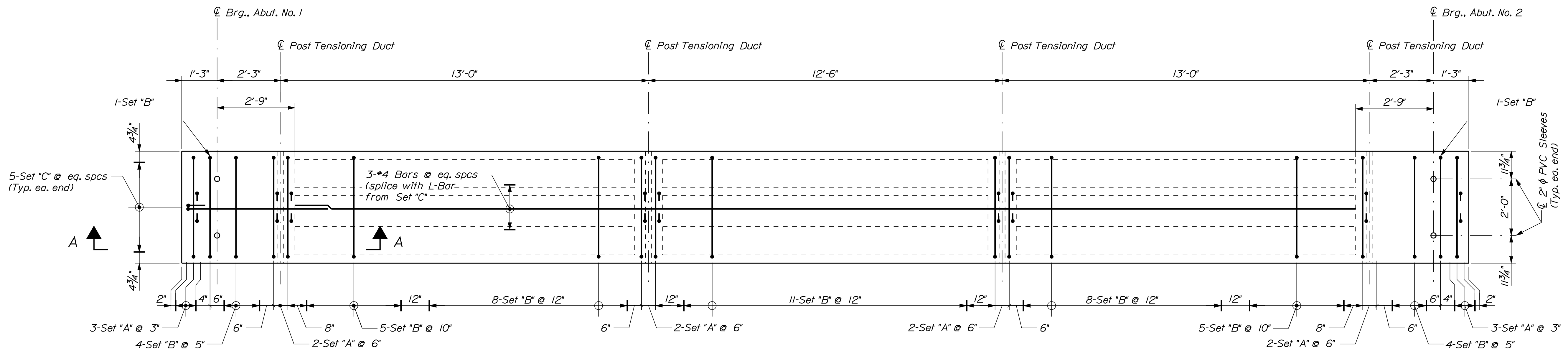
Username: brian.j.nichols

Division: BRIDGE

Filename: ... \MSTA\020_Precast_plan_1.dgn



PRECAST VOIDED SLAB PLAN
Slab No. 1



PRECAST VOIDED SLAB PLAN
Slab No. 2 Shown - Slabs 3-5 Same

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1787(200)X

BRIDGE NO. 2464
WIN
17872.00
BRIDGE PLANS

DATE
JUN 2011

BY
AON
BIN

MAP
R. NAQUIS

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

SIGNATURE

P.E. NUMBER

DATE

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG
OXFORD COUNTY

VOIDED SLAB PLAN

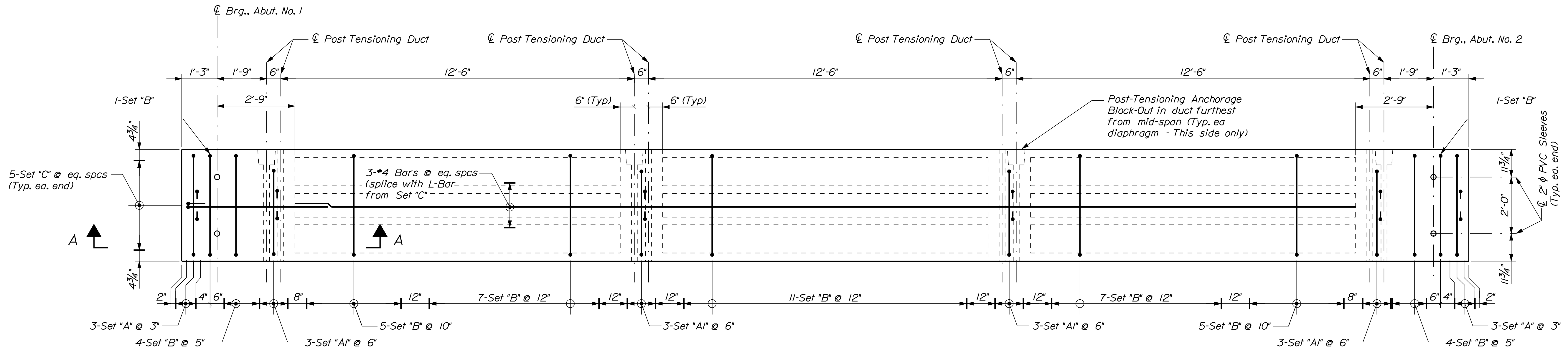
SHEET NUMBER
20
OF 24

Date: 12/29/2011

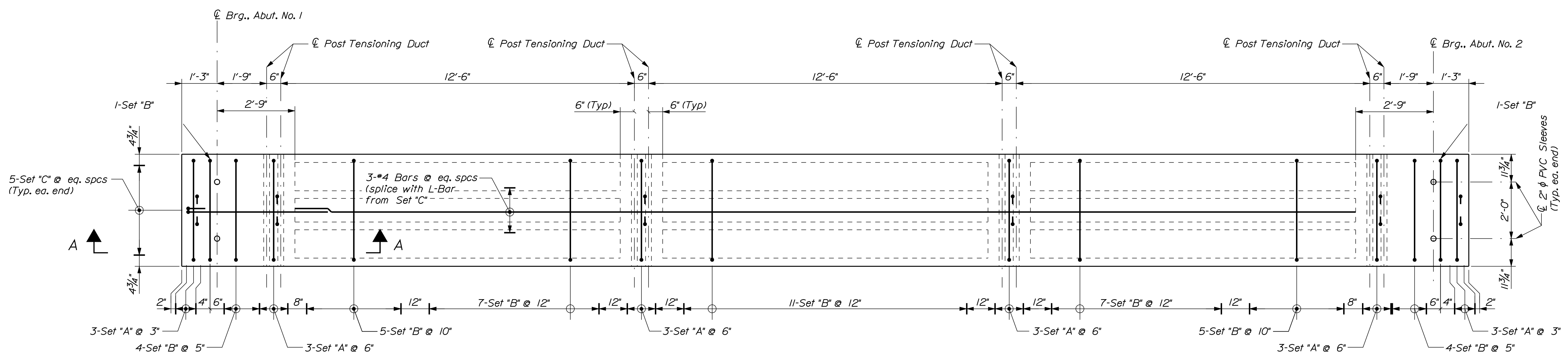
Username: brian.j.nichols

Division: BRIDGE

Filename: ... \MSTA\021_Precast_pln_2.dgn



PRECAST VOIDED SLAB PLAN
Slab No. 6



PRECAST VOIDED SLAB PLAN
Slab No. 7 Shown - Slab 8 Same

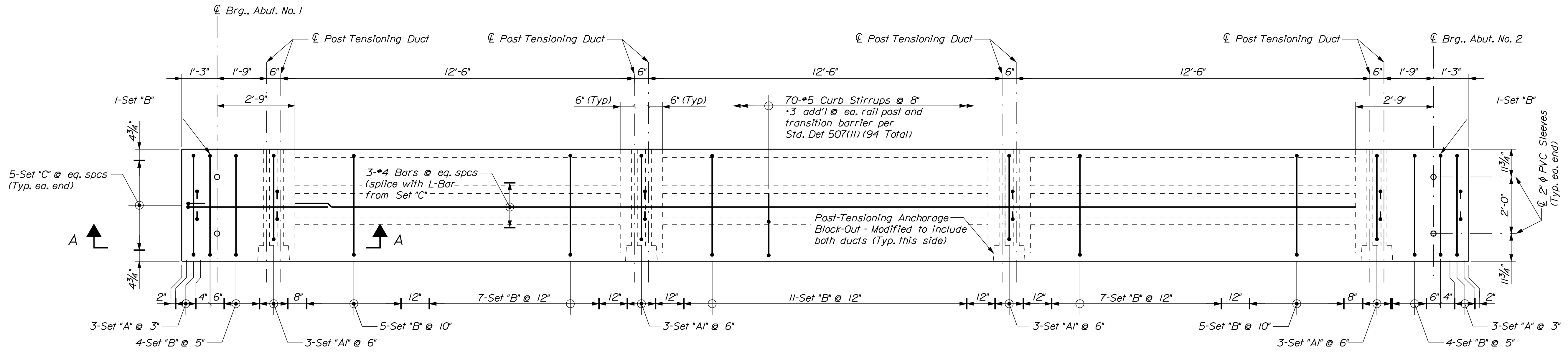
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1787(200)X
WIN
17872.00
BRIDGE NO. 2464
BRIDGE PLANS

PROJ. MANAGER	MAP	BY	DATE
CHECKED-REVIEWED	R. NAJOS	AON	JUN 2011
DESIGN-REVIEWED		BN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE	P.E. NUMBER	DATE

LITTLE POND BRIDGE
LITTLE POND STREAM
FRYEBURG OXFORD COUNTY
VOIDED SLAB PLAN

SHEET NUMBER
21
OF 24



PRECAST VOIDED SLAB PLAN
Slab No. 9

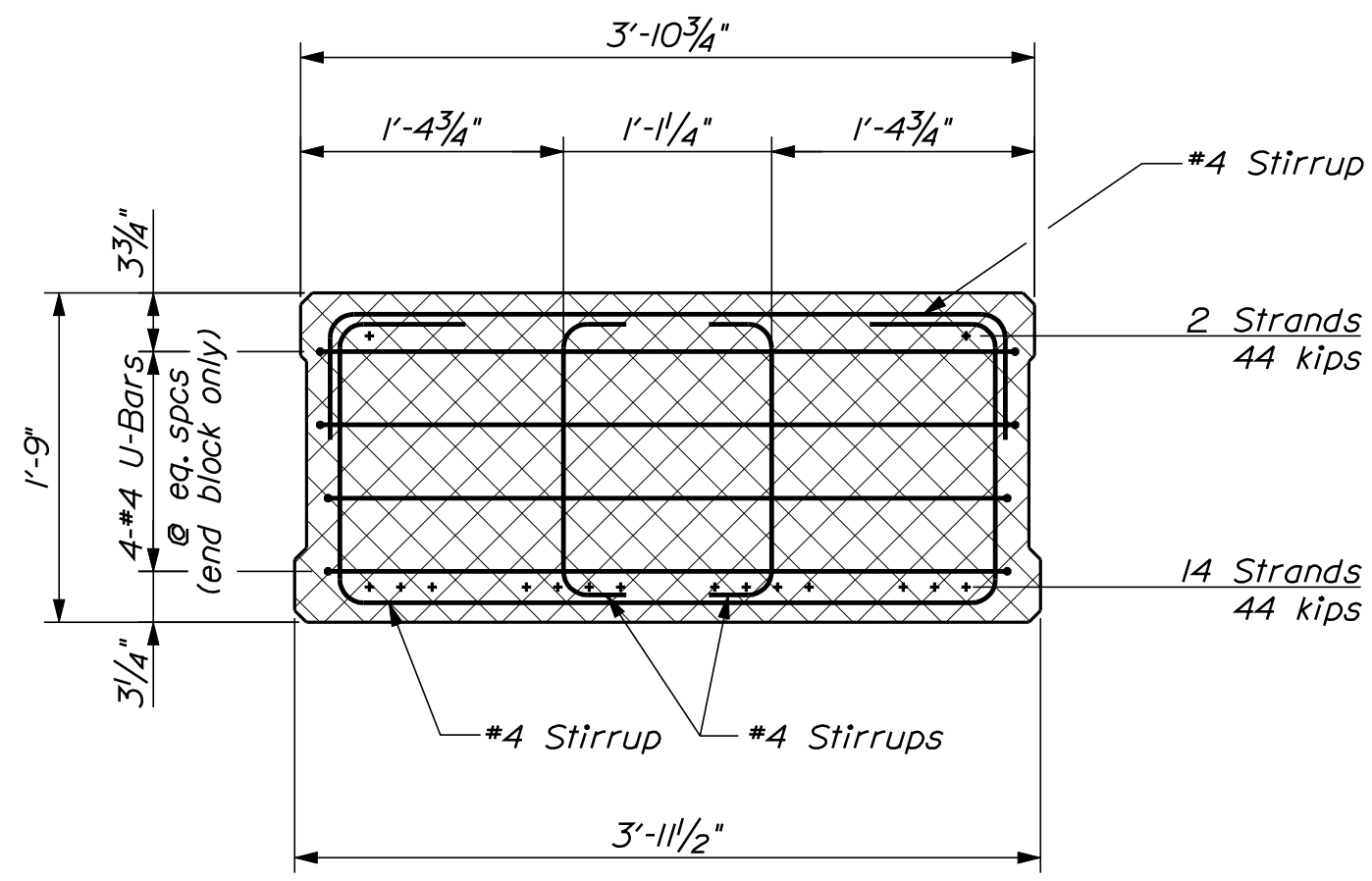
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BR-1787(200)X	
LITTLE POND BRIDGE		LITTLE POND STREAM		FRYEBURG	
OXFORD COUNTY		VOIDED SLAB PLAN		SHEET NUMBER	
22		OF 24		BRIDGE NO. 2464	
WIN		17872.00		BRIDGE PLANS	
PROJ. MANAGER	R. NAJOS	MAP	BIN	DATE	SIGNATURE
CHECKED-REVIEWED	---	---	---	---	---
DESIGN-REVIEWED	---	---	---	---	---
DESIGN-REVIEWED	---	---	---	---	---
REVISIONS 1	---	---	---	---	---
REVISIONS 2	---	---	---	---	---
REVISIONS 3	---	---	---	---	---
REVISIONS 4	---	---	---	---	---
FIELD CHANGES					

Date: 12/29/2011

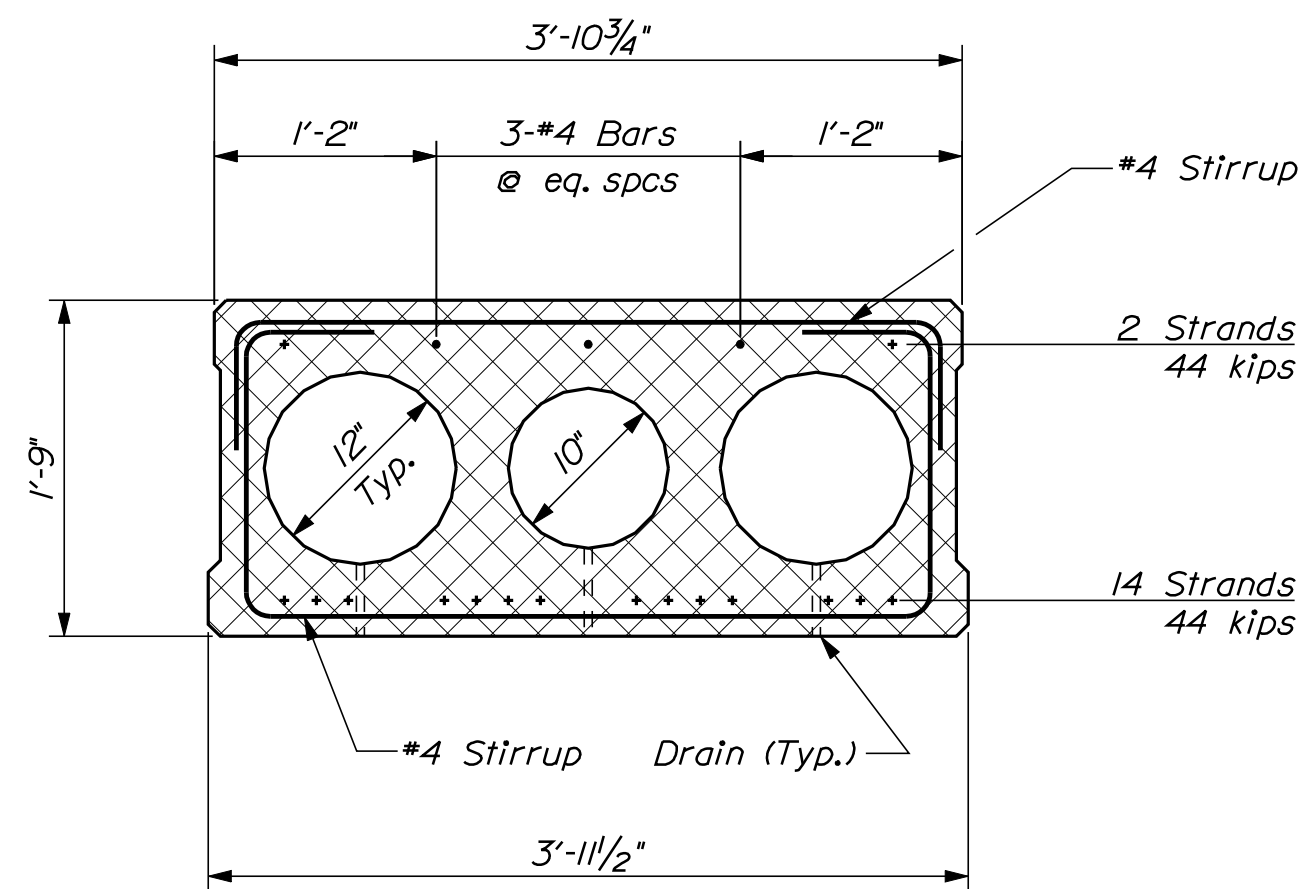
Username: briani.jnichols

Division: BRIDGE

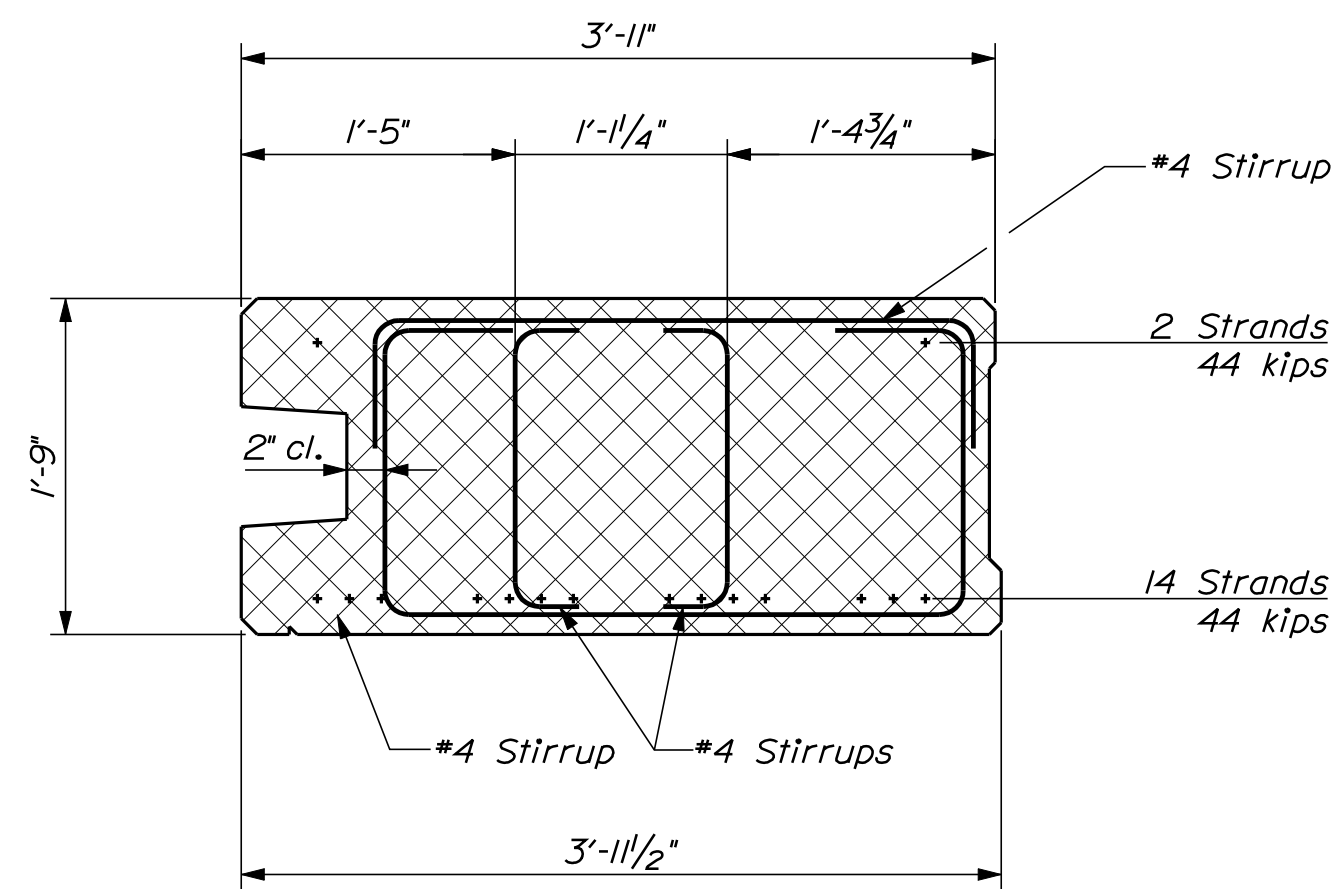
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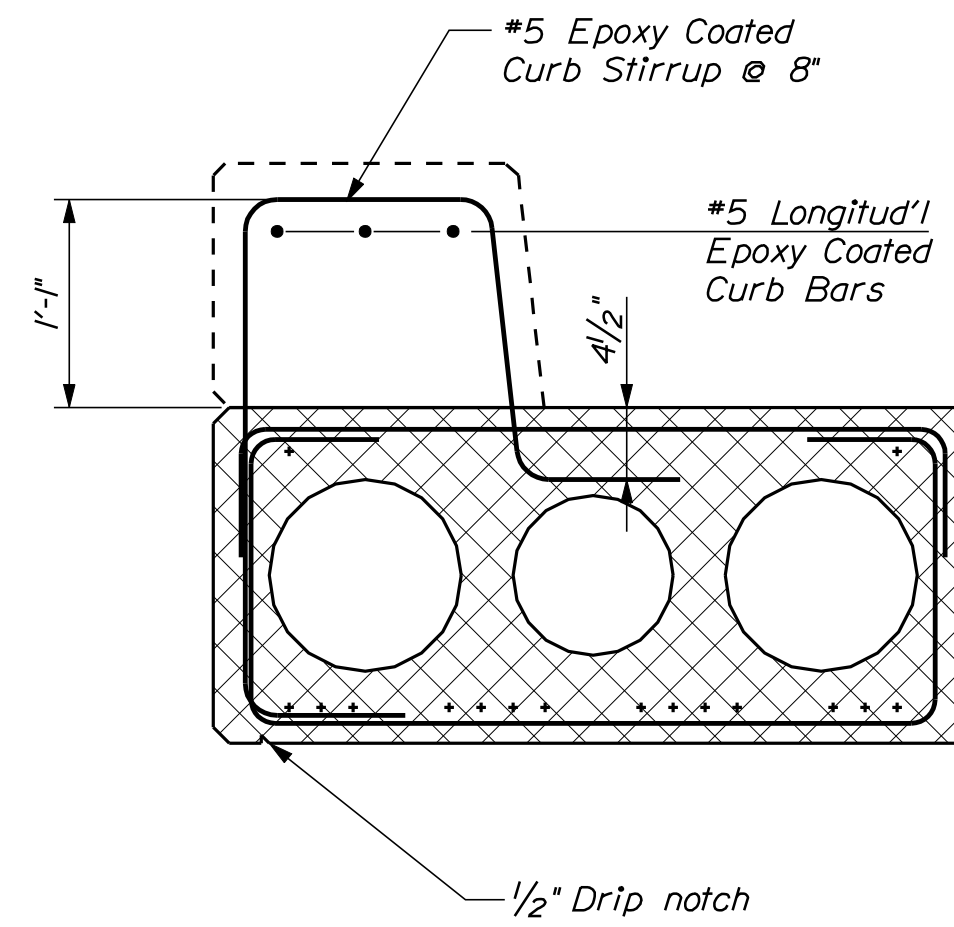
TYPICAL VOIDED SLAB SECTION
Showing Set "A" Reinforcing
• = 0.6" Strand - fully bonded



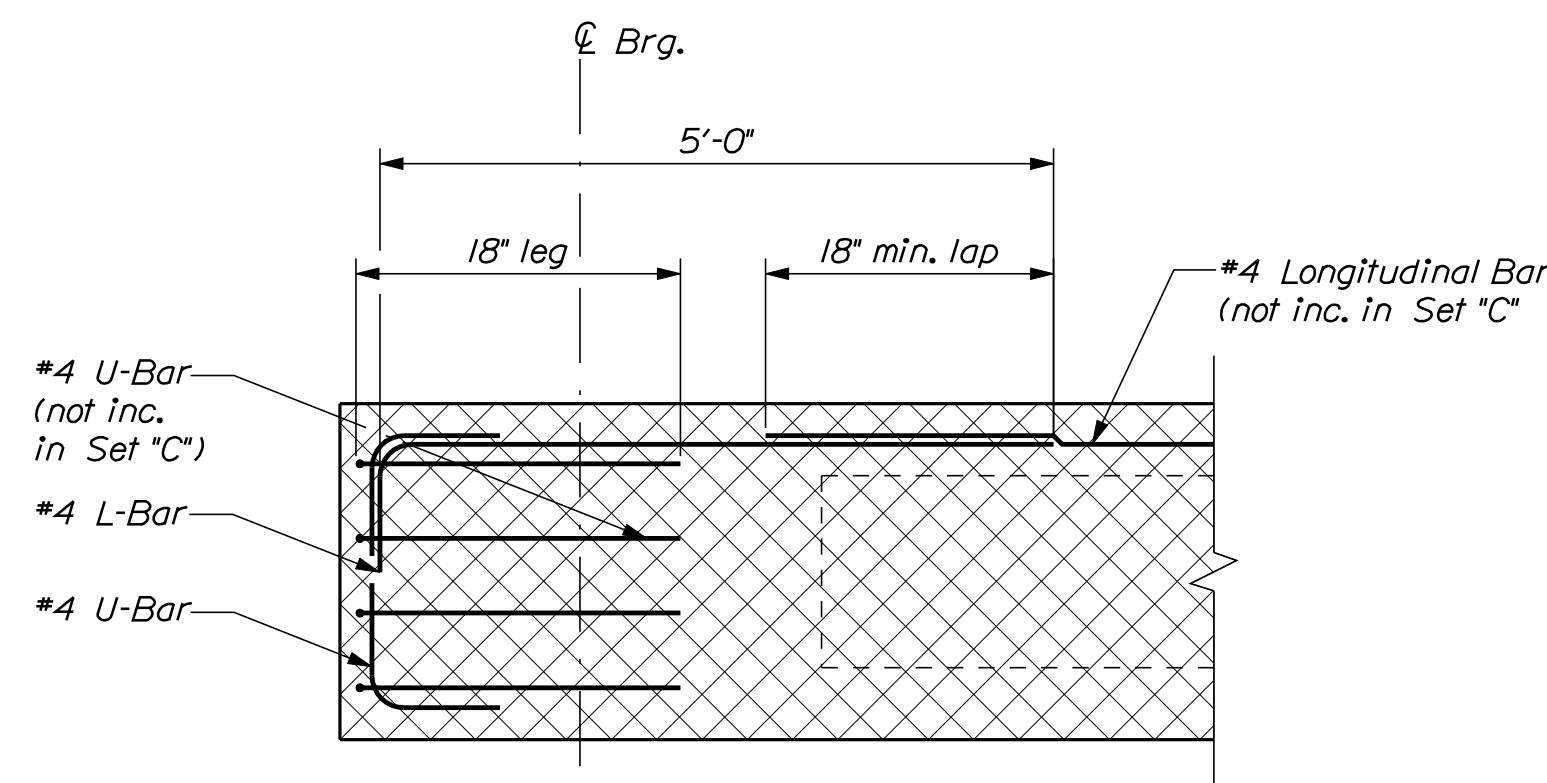
TYPICAL VOIDED SLAB SECTION
Showing Set "B" Reinforcing
• = 0.6" Strand - fully bonded



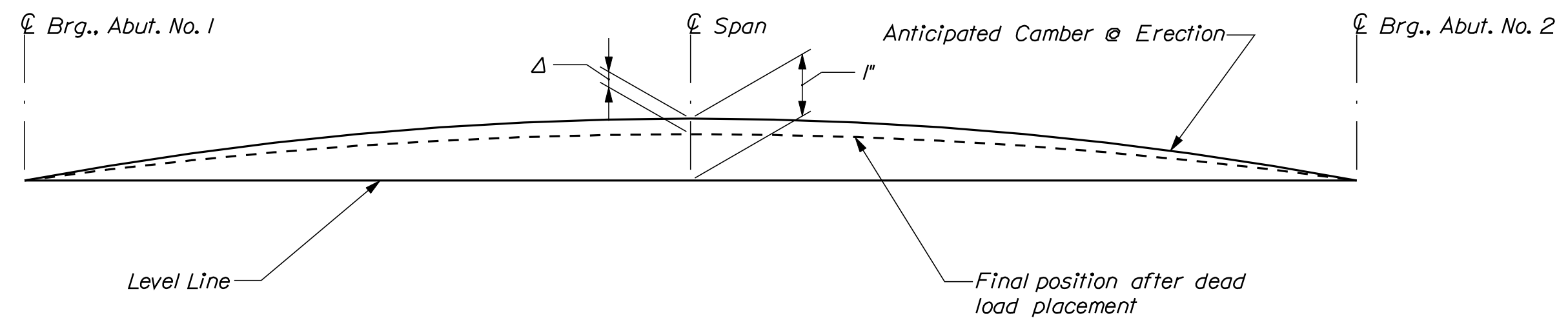
SECTION THROUGH BLOCK-OUT
Showing Set "A" Reinforcing
• = 0.6" Strand - fully bonded



EXTERIOR VOIDED SLAB SECTION



SECTION "A-A"
Showing Set "C" Reinforcing



CAMBER DIAGRAM
 $\Delta = 1/4"$ Due to Leveling Slab, Curbs, Rails, and Wearing Surface

PRECAST CONCRETE SUPERSTRUCTURE NOTES

1. Prestressing strands shall be 0.6-in. diameter. The tensioning force is 44 kips per prestressing strand.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Install a 1-in. diameter nonmetallic void drain in the bottom of each void at both ends.
4. The top surface of the upper flange of the prestressed slabs shall be raked to a surface roughness of $\pm 1/4$ inch.
5. The drilling of holes in the prestressed beams and the use of power actuated tools on the beams will not be permitted.
6. Neoprene pads shall be either polychloroprene or natural polyisoprene of 50 \pm 5 Shore A durometer hardness, and shall conform to the requirements of Division 2, Section 18.2 of AASHTO Standard Specifications for Highway Bridges. Neoprene pads will not be paid for directly but will be considered incidental to related contract items.
7. Post tensioning shall be covered by a seamless polypropylene sheath, with corrosion inhibiting grease between the strands and sheath, for the full length of the strand except at the anchorage location.
8. The Contractor shall calibrate the jacking equipment as necessary to provide an anchorage of 38 to 41 kips after setting losses in each 0.6-in. diameter post tensioning strand.
9. Screed rails shall be installed to the elevation shown on the profile, adjusted for wearing course thickness, cross slope and dead load deflection.

PROJ. MANAGER	MAP	BY	DATE
DESIGN-DETAILED	R. NAJOS	AON	JUN 2011
CHECKED-REVIEWED		BN	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE	P.E. NUMBER	DATE

LITTLE POND BRIDGE
LITTLE POND STREAM
OXFORD COUNTY
FRYEBURG
VOIDED SLAB DETAILS

SHEET NUMBER

23

OF 24

Filename: ... \00\ROW\MSTA\024_RWPLAN1.dgn Division: BRIDGE Username: brian.j.nichols Date: 12/29/2011

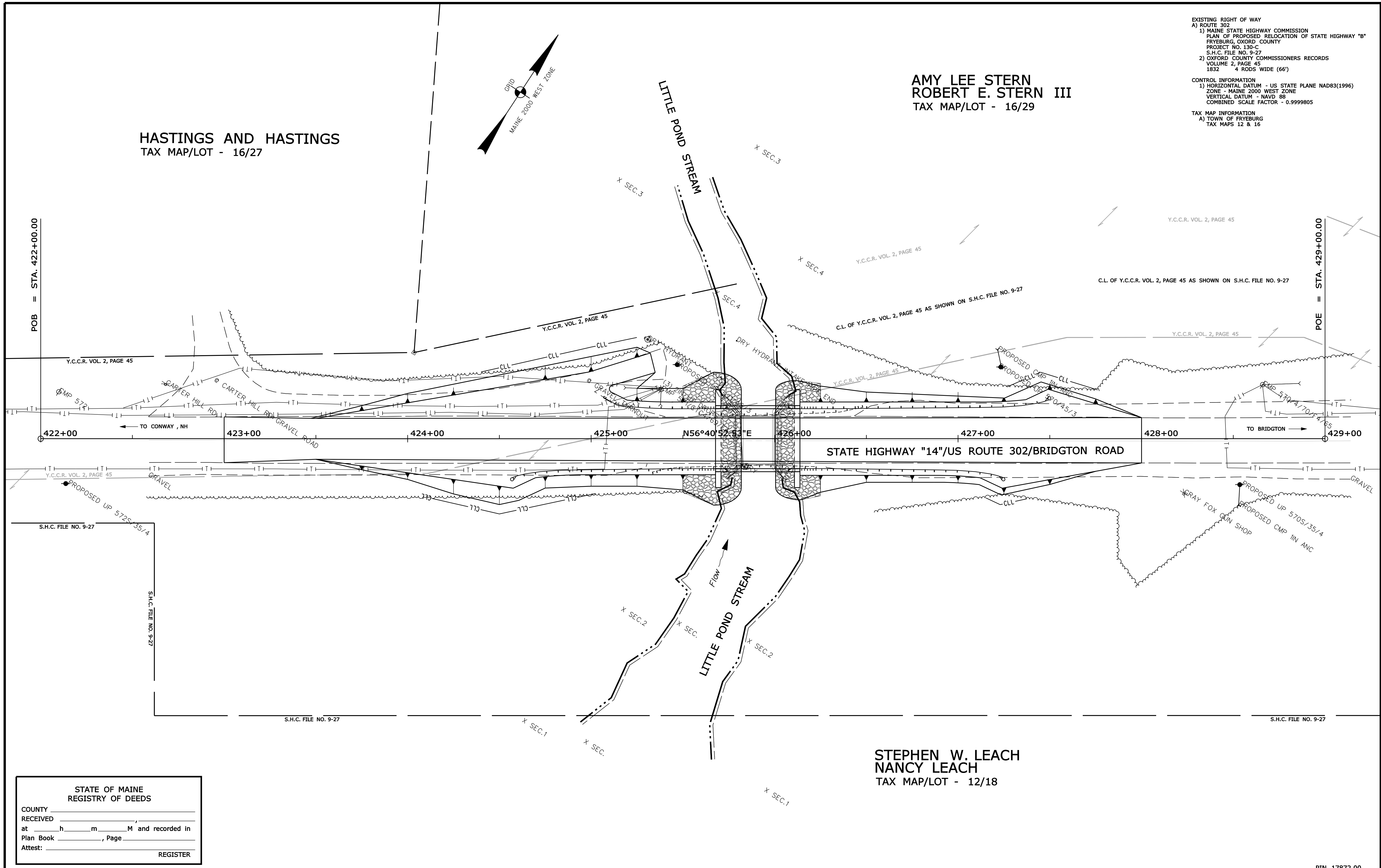
HASTINGS AND HASTINGS
TAX MAP/LOT - 16/27

AMY LEE STERN
ROBERT E. STERN III
TAX MAP/LOT - 16/29

EXISTING RIGHT OF WAY
A) ROUTE 302
1) MAINE STATE HIGHWAY COMMISSION
PLAN OF PROPOSED RELOCATION OF STATE HIGHWAY "B"
FRYEBURG, OXFORD COUNTY
PROJECT NO. 130-C
S.H.C. FILE NO. 9-27
2) OXFORD COUNTY COMMISSIONERS RECORDS
VOLUME 2, PAGE 45
1832 4 RODS WIDE (66')

CONTROL INFORMATION
1) HORIZONTAL DATUM - US STATE PLANE NAD83(1996)
ZONE - MAINE 2000 WEST ZONE
VERTICAL DATUM - NAVD 88
COMBINED SCALE FACTOR - 0.9999805

TAX MAP INFORMATION
A) TOWN OF FRYEBURG
TAX MAPS 12 & 16



SYMBOLS

•	IP or OP	(IRON PIPE or PIN FOUND)
□	ST	(SEPTIC TANK)
□	ABM	(TRAVEL POINT)
—	W	WATER LINE
—	G	GAS LINE
—	E	ELECTRIC LINE
—	T	TELEPHONE LINE
—	S	SEWER LINE
○	(WELL)	
---		GRADING LIMIT LINE
---		CONSTRUCTION LIMIT LINE
---		PROPERTY LINE
---		LIMITS OF TROUGHT PORTION (L.O.T.P.)
---		EXISTING RIGHT OF WAY
---		NEW RIGHT OF WAY
---		NEW ROW WITHIN EXIST. ROW
---		CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	G.L.L.	C.W.K.
PROP. LINES	G.L.L.	
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
FRYEBURG
RIGHT OF WAY MAP

STATE OF MAINE
REGISTRY OF DEEDS

COUNTY _____
RECEIVED _____
at _____ h _____ m _____ M and recorded in
Plan Book _____, Page _____
Attest: _____ REGISTER

STEPHEN W. LEACH
NANCY LEACH
TAX MAP/LOT - 12/18

NO.	DATE	REVISIONS DESCRIPTION	BY	PLAN FILED IN PLAN BOOK		PAGE		COUNTY RECORD	
				NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER

DATE _____

STATE HIGHWAY "14"
BRIDGTON ROAD
FRYEBURG OXFORD COUNTY
FEDERAL AID PROJECT NO. BR-1787(200)X

DECEMBER 2011
SCALE 1" = 25'

RIGHT-OF-WAY MAP
SHEET 1 OF 1

D.O.T. FILE NO. 9-368

SHEET NUMBER
24
OF 24

PIN 17872.00