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	820
Future (2038) AADT	900
DHV - % of AADT	12
Design Hour Volume	108
Heavy Trucks (% of AADT)	11
Heavy Trucks (% of DHV)	11
Directional Distribution (% of DHV)	87
18 kip Equivalent P 2.0	86
18 kip Equivalent P 2.5	86
Design Speed (mph)	50

HYDROLOGIC DATA

Drainage Area	3.4 sq mi
Design Discharge (Q50)	300.3 cfs
Check Discharge (Q100)	357.6 cfs
Headwater Elevation (Q1.1)	432.78 ft
Headwater Elevation (Q25)	435.28 ft
Headwater Elevation (Q50)	435.66 ft
Headwater Elevation (Q100)	436.17 ft
Discharge Velocity (Q1.1)	3.65 fps
Discharge Velocity (Q50)	8.66 fps
Discharge Velocity (Q100)	9.13 fps

MATERIALS

Concrete:	
Precast	Class "P"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Welded Wire Reinforcement	ASTM A185/A185M or ASTM A497/A497M

BASIC DESIGN STRESSES

Concrete	f 'c = 4,000 psi
Precast Concrete	f 'c = 5,000 psi
Reinforcing Steel	F y = 60,000 psi

LIST OF DRAWINGS

TOPSFIELD
WASHINGTON COUNTY
FARROW LAKE STREAM BRIDGE
OVER
DEADMAN STREAM
ROUTE 6 (LAKE VIEW ROAD)
FEDERAL PROJECT NO. STP-2170(600)
PROJECT LENGTH 0.085 mi.
BRIDGE NO. 5378

UTILITIES

Eastern Maine Electric
Fairpoint

MAINTENANCE OF TRAFFIC

Maintain a minimum of one 11'-0" wide lane of alternating traffic.

PROJECT LOCATION	Located 1.3 miles West of US 1 junction on Route 6 Longitude 67°-45'-33.8" W Latitude 45°-24'-47.3" N
PROGRAM AREA	Highway Bridges - Minor Spans
OUTLINE OF WORK	Bridge Replacement

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED — DATE 12/11/18
COMMISSIONER: Bruce A. Van Note — CHIEF ENGINEER: Jeffrey S. Taylor — 12-11-18

STATE OF MAINE — Richard E. Myers — 12670 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE — P.E. NUMBER 12670 — DATE December 3, 2018

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	M. WIGHT
DESIGNER	B. BARTLETT
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 21706.00

STP-2170(600)

TOPSFIELD
FARROW LAKE STREAM BRIDGE

TITLE SHEET

SHEET NUMBER 1 OF 14

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	REMOVING EXISTING BRIDGE (50 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	310	SY
203.20	COMMON EXCAVATION	440	CY
203.24	COMMON BORROW	10	CY
203.25	GRANULAR BORROW	103	CY
203.33	SPECIAL FILL	81	CY
206.07	STRUCTURAL ROCK EXCAVATION DRAINAGE AND MINOR STRUCTURES	10	CY
304.10	AGGR SUBB COURSE - GRAVEL	780	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	143	T
403.209	HOT MIX ASPHALT 9.5 MM (INCIDENTALS)	8	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	193	T
409.15	BITUMINOUS TACK COAT - APPLIED	60	G
461.131	TEMPORARY PAVEMENT	96	T
508.13	SHEET WATERPROOFING MEMBRANE (93 SY)	1	LS
510.10	SPECIAL DETOUR - ROUTE 6, 14' MIN. WIDE, TRAFFIC NOT SEPERATED	1	LS
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
513.22	CRUSHED STONE SLOPE PROTECTION	25	SY
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (31 SY)	1	LS
526.301	TEMPORARY CONC BARRIER TYPE 1 (600 LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	4	UN
534.71	PRECAST CONCRETE BOX CULVERT (98 CY)	1	LS
603.17	18 INCH CULVERT PIPE OPTION 1	40	LF
606.1301	31" W-BM GR, MID-WAY SPLICE-SGL FACED	150	LF
606.1305	31" W-BM GR, MD-WY SPLC FLARED TERM	4	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
610.08	PLAIN RIPRAP	110	CY
613.319	EROSION CONTROL BLANKET	72	SY
615.07	LOAM	39	CY
618.14	SEEDING METHOD NUMBER 2	7	UN
619.12	MULCH	7	UN
619.14	EROSION CONTROL MIX	78	CY
620.58	EROSION CONTROL GEOTEXTILE	163	SY
627.733	4" WHITE OR YELLOW PAINTED PAVE MRK LINE	1,350	LF
627.77	REMOVING PAVEMENT MARKINGS	45	SF
627.78	TEMP 4" PAINT PVMT MARK LINE W OR Y	870	LF
629.05	HAND LABOR, STRAIGHT TIME	50	HR
631.12	ALL PURPOSE EXCAVATOR (INC OPERATOR)	25	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	25	HR
639.19	FIELD OFFICE TYPE B	0.5	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	2	EA
652.33	DRUM	50	EA
652.34	CONE	100	EA
652.35	CONSTRUCTION SIGNS	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	240	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA
652.47	TEMPORARY PORTABLE RUMBLE STRIP	2	GP
656.75	TEMP SOIL EROSION & WATER POLLUTION CTRL	1	LS
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, shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.

7. Place riprap on sideslopes as shown in plans to EL. 435.

8. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. Payment for hand raking will be considered incidental to Item No. 304.10, Aggregate Subbase Course - Gravel.

9. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

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.

11. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap.

12. Guardrail posts shall be modified from a length of 7 feet to a length of 8 feet with an embedment of 5.4 feet. Payment will be considered incidental to the guardrail pay items.

13. A MASH compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

14. 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.

15. Protective Coating for Concrete Surfaces shall be applied to the following areas:

On all concrete headwalls and box surfaces that are exposed, and to one foot beyond intersections of box surfaces with ground.

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

17. 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.

18. The project geotechnical report titled: Geotechnical Design Report for the replacement of Farrow Lake Stream Bridge, Soils Report 2018-41, dated November 5, 2018 may be accessed at the MaineDOT web address.

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

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

a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.

21. Existing bridge shall be removed in its entirety.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378 BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	B. BARTLETT	A. PARADIS	DEC 2018
CHECKED-REVIEWED	R. MYERS	B. BARTLETT	DEC 2018
DESIGN2-DETAILED2	B.SLAVEN	T. WHITE	OCT 2018
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

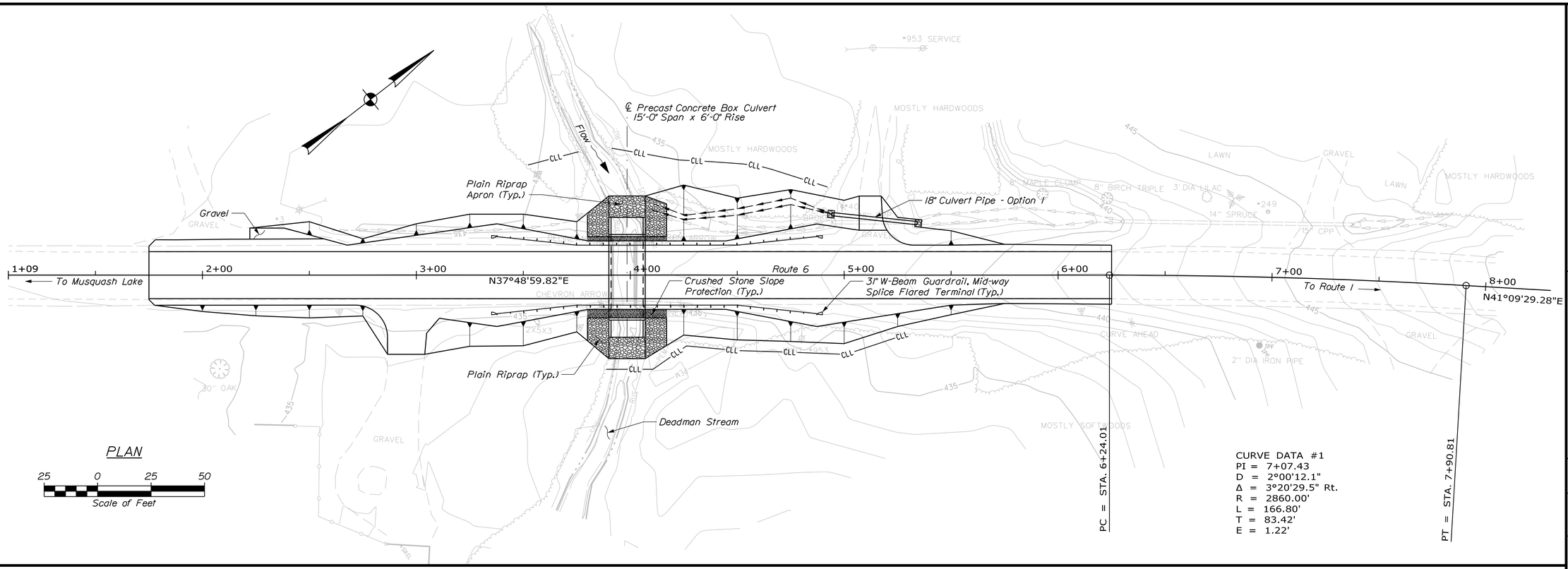
FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

ESTIMATED QUANTITIES AND GENERAL CONSTRUCTION NOTES

SHEET NUMBER

2

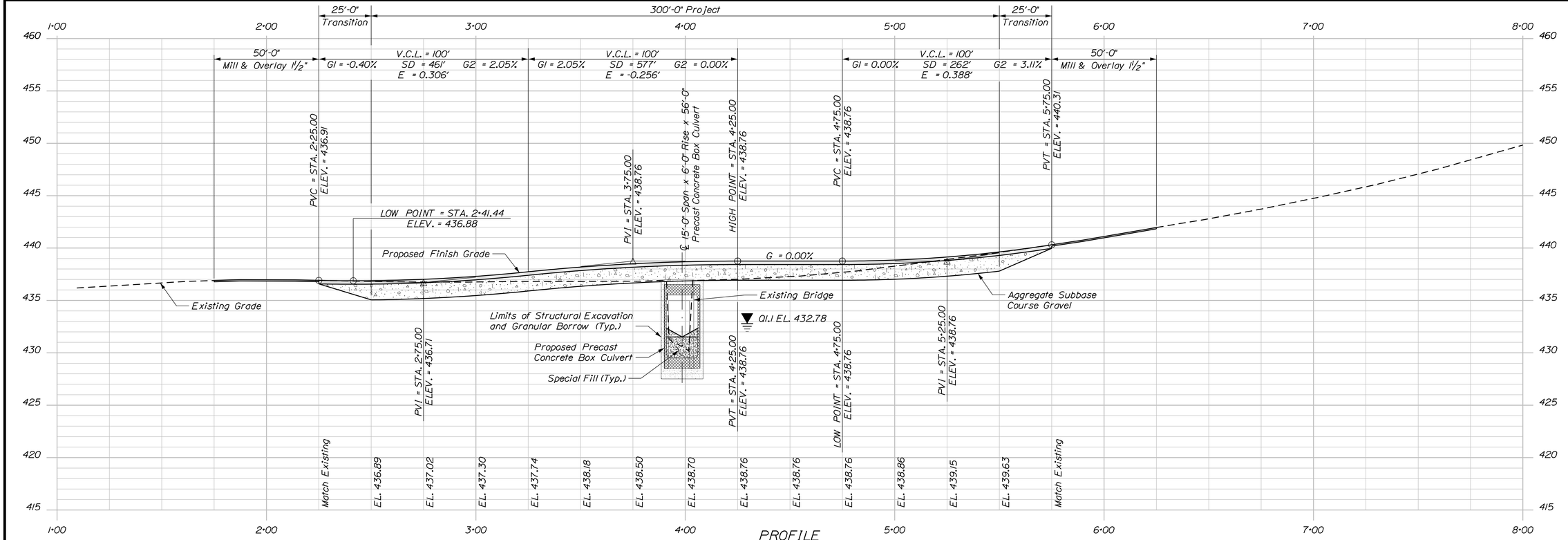
OF 14



PLAN

25 0 25 50

Scale of Feet



PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378

BRIDGE PLANS

M. WIGHT	BY	DATE	
PROJ. MANAGER			
DESIGN-DETAILED	B. BARTLETT	A. PARADIS	DEC 2018
CHECKED-REVIEWED	R. MYERS	B. BARTLETT	DEC 2018
DESIGN2-DETAILED2	B.SLAVEN	T. WHITE	OCT 2018
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CURVE DATA #1
PI = 7+07.43
D = 2°00'12.1"
Δ = 3°20'29.5" Rt.
R = 2860.00'
L = 166.80'
T = 83.42'
E = 1.22'

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

PLAN & PROFILE

SHEET NUMBER

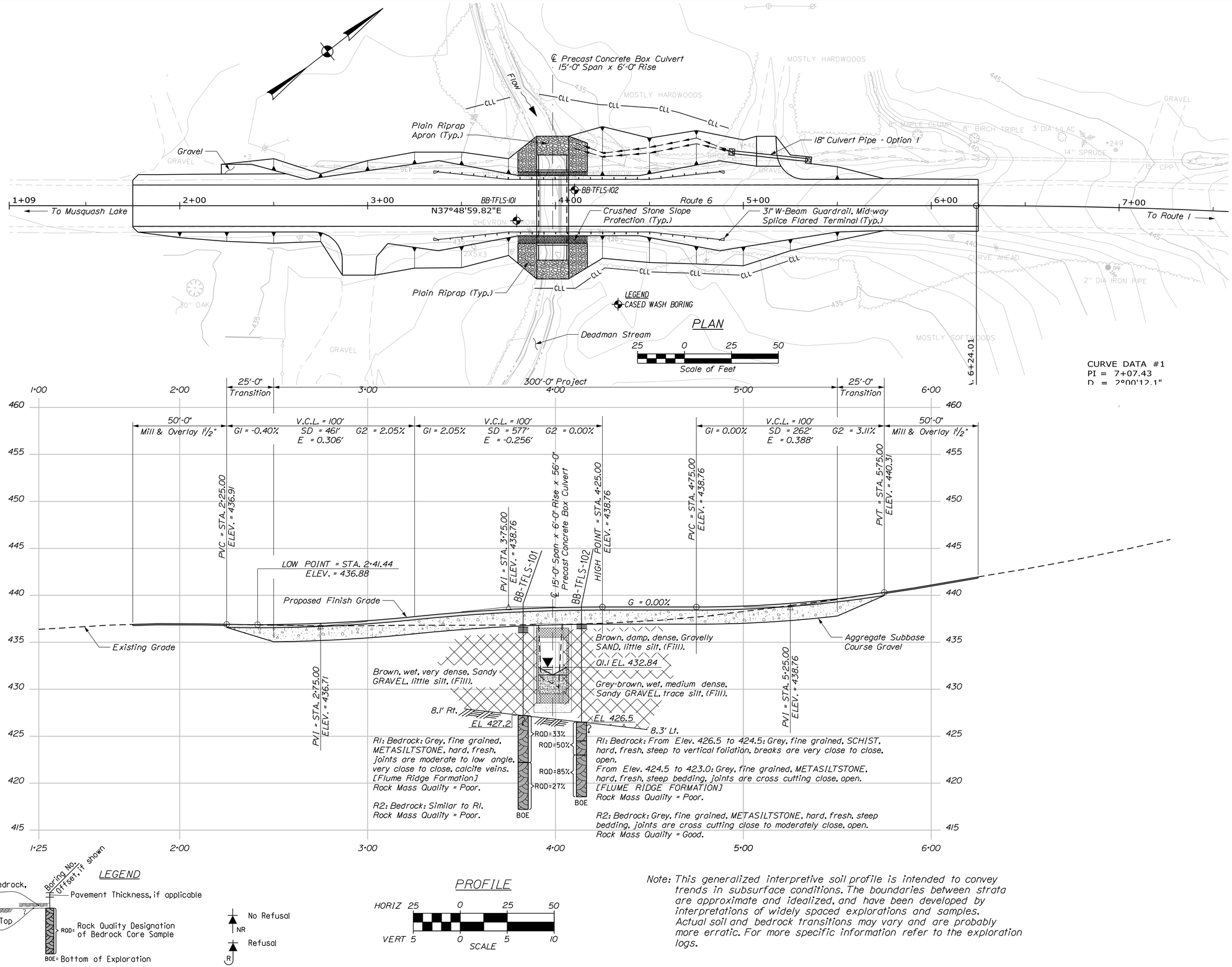
3

OF 14

Username: armand.j.paradis Date:12/3/2018

Division: BRIDGE

Filename: ...\MSTA\003_Plan-Profile.dgn



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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 21706.00

BRIDGE NO. 5378

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2	B.SLAVEN	OCT 2018
DESIGN3-DETAILED3	T.WHITE	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

4

OF 14

Filename: ...\GEOTECH\MSTA\004_BLP&ISP1.dgn Username: armond.j.parodis Division: BRIDGE Date:12/3/2018

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Farrow Lake Stream Bridge #5378 carries Route 6 over Farrow Lake
Location: Topsfield, Maine

Boring No.: BB-TFLS-101

WIN: 21706.00

Driller:	MaineDOT	Elevation (ft.)	436.6	Auger ID/OD:	5" Solid Stem
Operator:	Travis/James/Rick	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5/10/2017: 08:00-11:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	3+82.8, 8.1 ft Rt.	Casing ID/OD:	NW-3"	Water Level*:	2.2 ft bgs.
Hammer Efficiency Factor: 0.854		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test. PP = Pocket Penetrometer
MV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOIP = Weight of One Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
T_v = Pocket Torvane Shear Strength (ps
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	436.0		7" HMA.	
										0.6	
										(Visual description from auger flight) Brown, damp, Gravelly fine to coarse SAND, little silt, (Fill).	
5	1D	18/13	5.00 - 6.50	29/47/53	100	142				Brown, wet, very dense, Sandy GRAVEL, little silt, (Fill).	G#303872 A-1-a, GM WC=12.0%
	R1	60/53	9.40 - 14.40	RQD = 33%			NQ-2	427.2		Set in NW Casing.	
										9.4	
10										Top of Bedrock at Elev. 427.2 ft. R1: Bedrock: Grey, fine grained, METASILTSTONE, hard, fresh, joints are moderate to low angle, very close to close, calcite veins. [Flume Ridge Formation] Rock Mass Quality = Poor. R1: Core Times (min:sec) 9.4-10.4 ft (2:17) 10.4-11.4 ft (2:28) 11.4-12.4 ft (3:13) 12.4-13.4 ft (3:04) 13.4-14.4 ft (3:00) 88% Recovery	
										R2: Bedrock: Similar to R1. Rock Mass Quality = Poor. R2: Core Times (min:sec) 14.4-15.4 ft (3:18) 15.4-16.4 ft (3:29) 16.4-17.4 ft (3:06) 17.4-18.4 ft (3:08) 18.4-19.4 ft (3:36) 95% Recovery	
15	R2	60/57	14.40 - 19.40	RQD = 27%							
								417.2		19.4	
20										Bottom of Exploration at 19.4 feet below ground surface.	
25											
30											

Remarks:

Stratification lines represent approximate boundaries between soil types: 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.

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Farrow Lake Stream Bridge #5378 carries Route 6 over Farrow Lake
Location: Topsfield, Maine

Boring No.: BB-TFLS-102

WIN: 21706.00

Driller:	MaineDOT	Elevation (ft.)	436.9	Auger ID/OD:	5" Solid Stem
Operator:	Travis/James/Rick	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5/10/2017: 11:30-13:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	4+13.7, 8.3 ft Lt.	Casing ID/OD:	NW-3"	Water Level*:	4.2 ft bgs.
Hammer Efficiency Factor: 0.854		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test. PP = Pocket Penetrometer
MV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOIP = Weight of One Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
T_v = Pocket Torvane Shear Strength (ps
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	436.4		6" HMA.	
										0.5	
	1D	24/12	1.00 - 3.00	9/10/23/19	33	47				Brown, damp, dense, Gravelly SAND, little silt, (Fill).	
								433.4		3.5	
5	2D	24/14	5.00 - 7.00	5/11/9/8	20	28	8			Grey-brown, wet, medium dense, Sandy GRAVEL, trace silt, (Fill).	G#303873 A-1-a, GW-GM WC=13.1%
							43				
							18				
							56				
							262				
	MD R1	4.8/0 42/42	10.00 - 10.40	36(4.8") RQD = 50%	---		NQ-2	426.5		Failed sample attempt.	
			10.40 - 13.90							10.4	
10										Top of Bedrock at Elev. 426.5 ft. R1: Bedrock: From Elev. 426.5 to 424.5: Grey, fine grained, SCHIST, hard, fresh, steep to vertical foliation, breaks are very close to close, open. From Elev. 424.5 to 423: Grey, fine grained, METASILTSTONE, hard, fresh, steep bedding, joints are cross cutting close, open. [FLUME RIDGE FORMATION] Rock Mass Quality = Poor. R1: Core Times (min:sec) 10.4-11.4 ft (2:43) 11.4-12.4 ft (3:08) 12.4-13.4 ft (6:06) 13.4-13.9 ft (4:00) Core Blocked 100% Recovery	
	R2	54/54	13.90 - 18.40	RQD = 85%							
15								418.5		R2: Bedrock: Grey, fine grained, METASILTSTONE, hard, fresh, steep bedding, joints are cross cutting close to moderately close, open. Rock Mass Quality = Good. R2: Core Times not given. 100% Recovery	
20										18.4	
										Bottom of Exploration at 18.4 feet below ground surface.	
25											
30											

Remarks:

Stratification lines represent approximate boundaries between soil types: 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.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 21706.00

BRIDGE NO. 5378

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	----------	----------
DESIGN-DETAILED	----------	----------
CHECKED-REVIEWED	SIGNATURE	OCT 2018
DESIGN2-DETAILED2	B.SLAVEN	T.WHITE
DESIGN3-DETAILED3	P.E. NUMBER	DATE
REVISIONS 1	----------	----------
REVISIONS 2	----------	----------
REVISIONS 3	----------	----------
REVISIONS 4	----------	----------
FIELD CHANGES	----------	----------

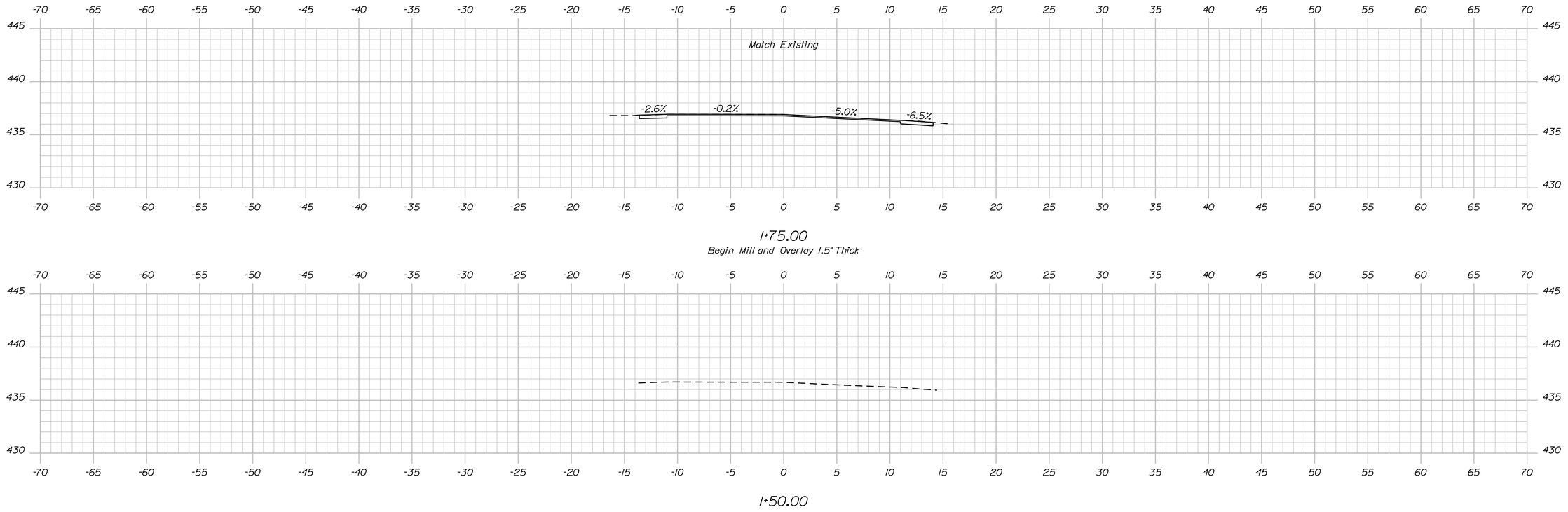
FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

BORING LOGS

SHEET NUMBER

5

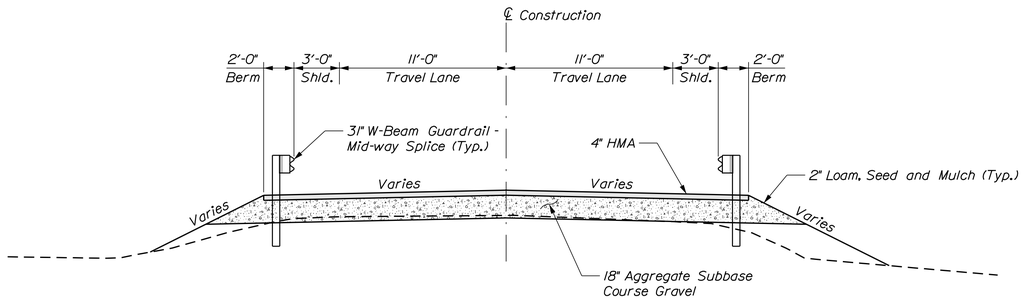
OF 15



1+75.00

Begin Mill and Overlay 1.5" Thick

1+50.00



TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378

BRIDGE PLANS

PROJ. MANAGER	M. WIGHT		
DESIGN-DETAILED	B. BARTLETT	A. PARADIS	DEC 2018
CHECKED-REVIEWED	R. MYERS	B. BARTLETT	DEC 2018
DESIGN2-DETAILED2	B.SLAVEN	T. WHITE	OCT 2018
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

6

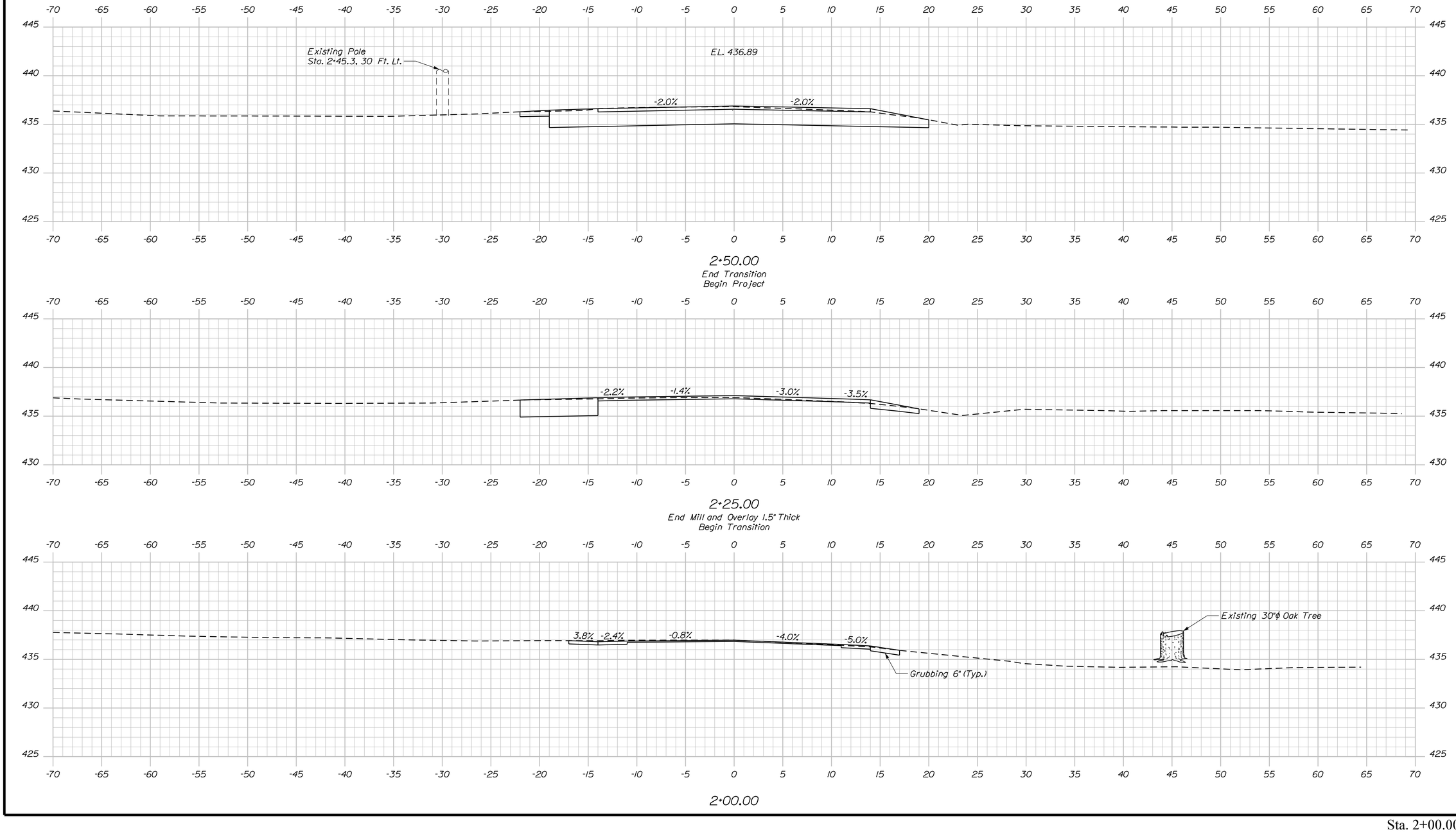
OF 14

Username: armond.j.paradis Date:12/3/2018

Division: BRIDGE

Filename: ...\MSTA\006_XSECT_1+09_001.dgn

Sta. 1+50.00 to Sta. 1+75.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378 — BRIDGE PLANS

PROJ. MANAGER	M. WIGHT		
DESIGN-DETAILED	B. BARTLETT	A. PARADIS	DEC 2018
CHECKED-REVIEWED	R. MYERS	B. BARTLETT	DEC 2018
DESIGN2-DETAILED2	B.SLAVEN	T. WHITE	OCT 2018
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

7

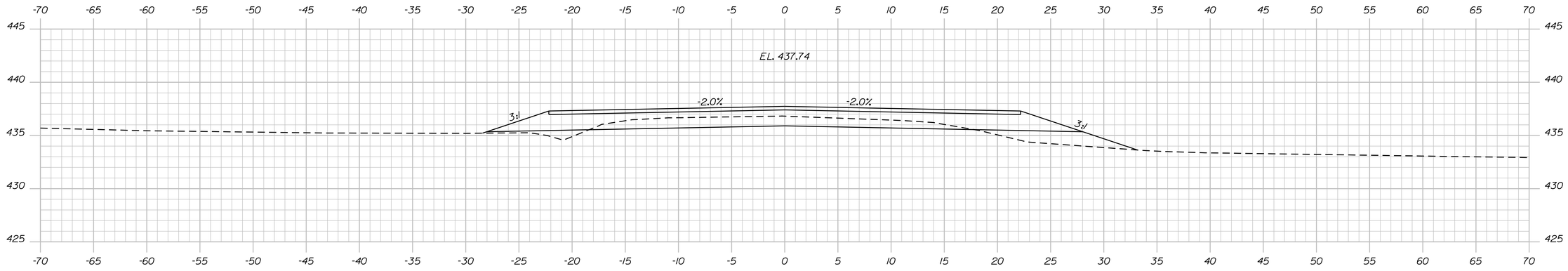
OF 14

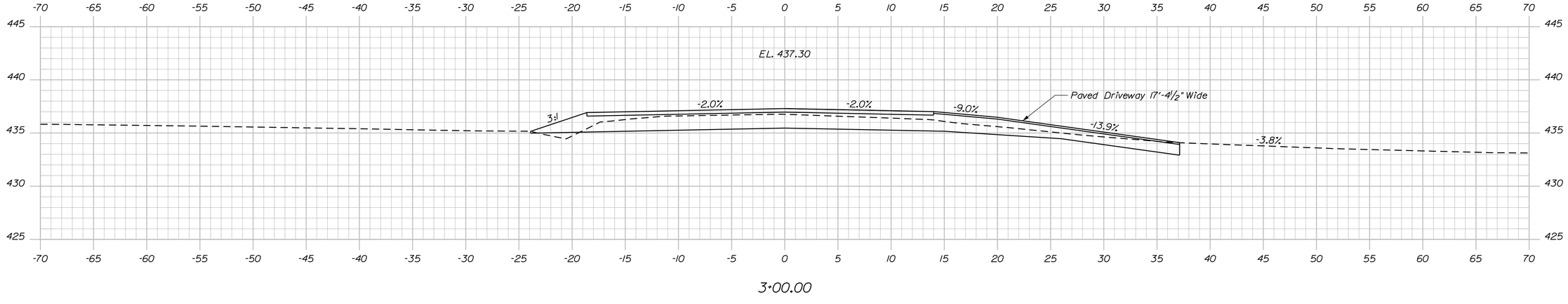
Sta. 2+00.00 to Sta. 2+50.00

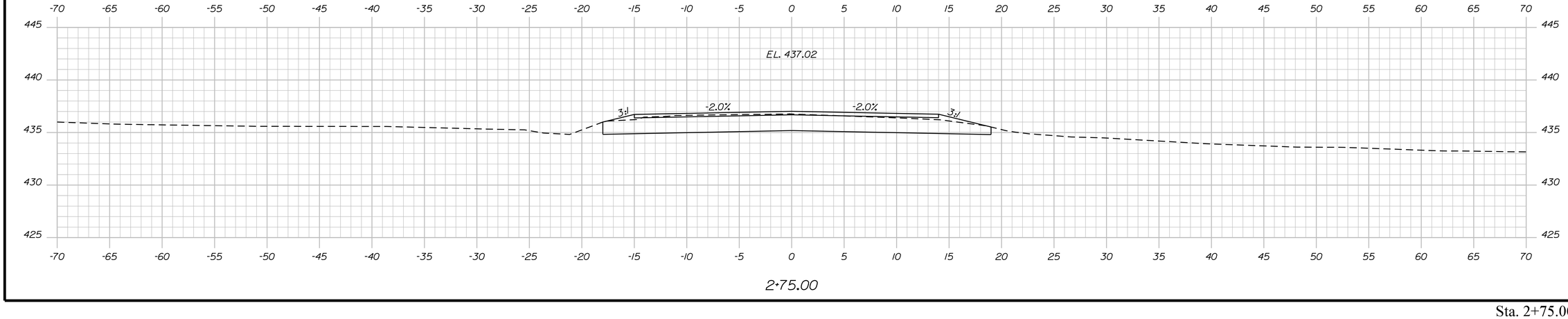
Username: armond.j.paradis Date:12/3/2018

Division: BRIDGE

Filename: ...\MSTA\007_XSECT_2+00_002.dgn







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN
021706.00

BRIDGE NO. 5378

BRIDGE PLANS

PROJ. MANAGER	M. WIGHT		
DESIGN-DETAILED	B. BARTLETT	A. PARADIS	DEC 2018
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

8

OF 14

Sta. 2+75.00 to Sta. 3+25.00

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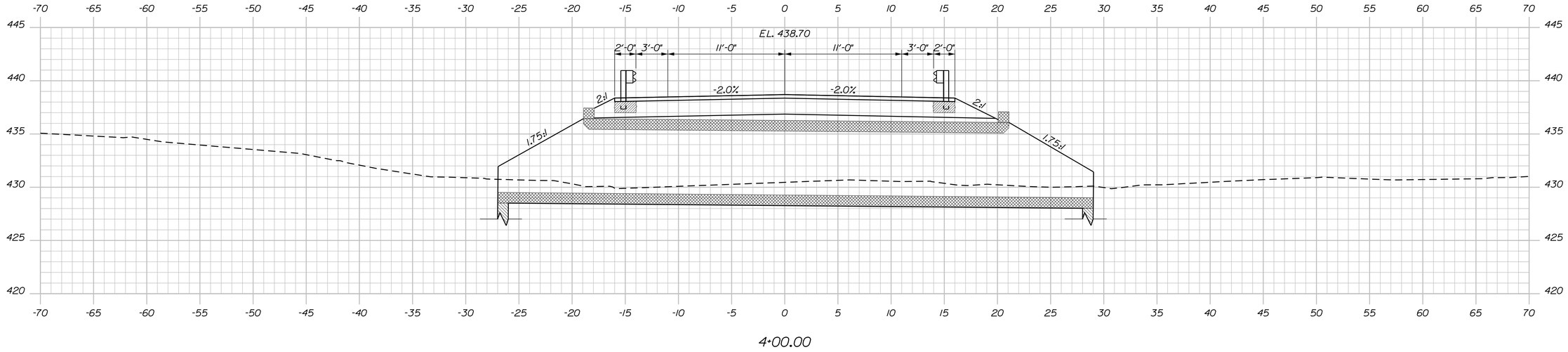
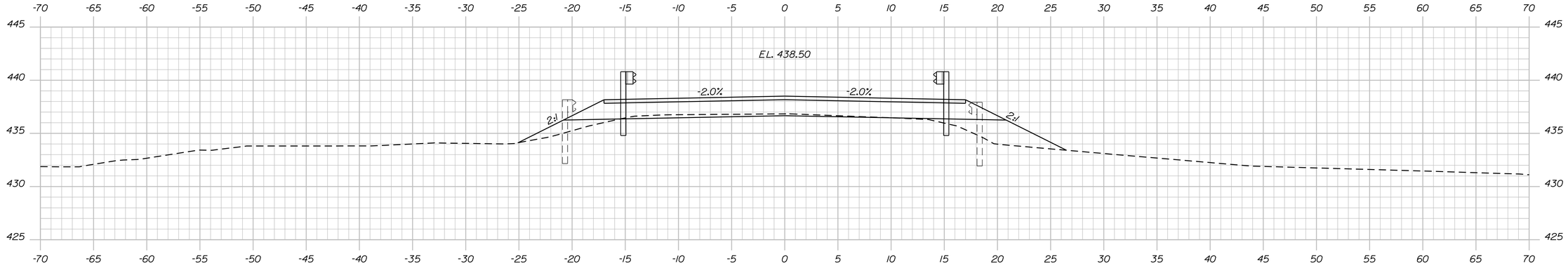


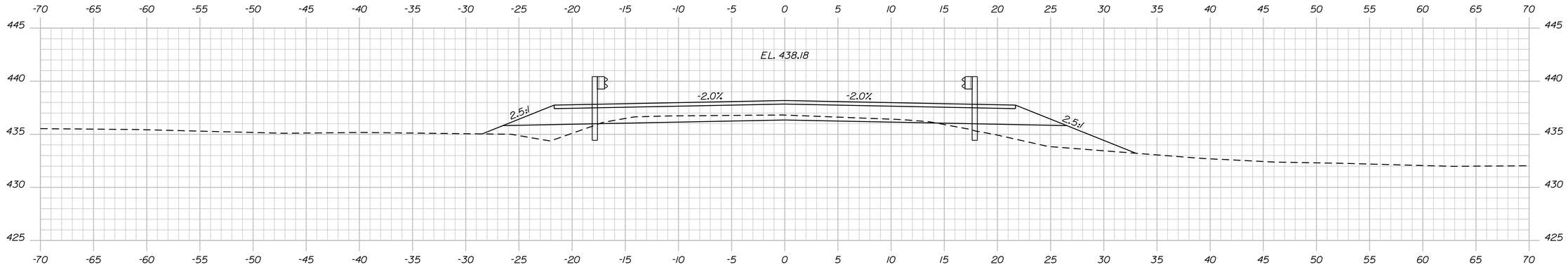
4+00.00



Sta. 3+74.88±, 14.0± Ft. Lt. to Sta. 4+50.00±, 14.0± Ft. Lt.
Install 31" W-Beam Guardrail - Mid-way Splice

3+75.00

Sta. 3+74.88±, 14.0± Ft. Rt. to Sta. 4+50.00±, 14.0± Ft. Rt.
Install 31" W-Beam Guardrail - Mid-way Splice



Sta. 3+37.71±, 18.0± Ft. Lt. to Sta. 3+74.88±, 14.0± Ft. Lt.
Install 31" W-Beam Guardrail - Mid-way Splice Flared Terminal

3+50.00

Sta. 3+37.71±, 18.0± Ft. Rt. to Sta. 3+74.88±, 14.0± Ft. Rt.
Install 31" W-Beam Guardrail - Mid-way Splice Flared Terminal

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378

BRIDGE PLANS

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REVISIONS 4			
FIELD CHANGES			

BY | DATE | SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

CROSS SECTIONS

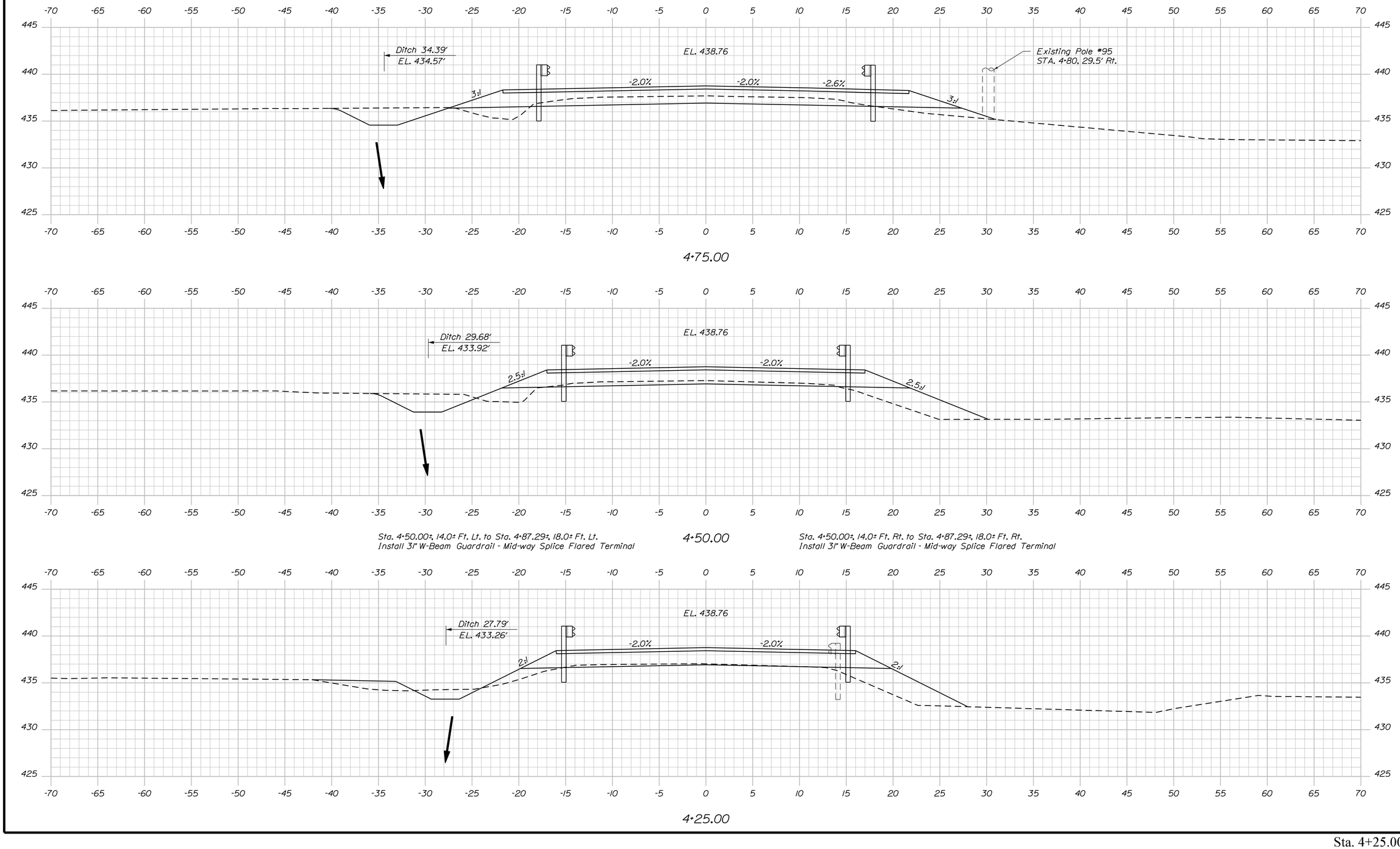
SHEET NUMBER

9

OF 14

Filename: ...\MSTA\009_XSECT_3+50_004.dgn Username: armond.j.paradis Division: BRIDGE Date:12/3/2018

Sta. 3+50.00 to Sta. 4+00.00



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378

BRIDGE PLANS

	BY	DATE
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FIELD CHANGES		

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DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

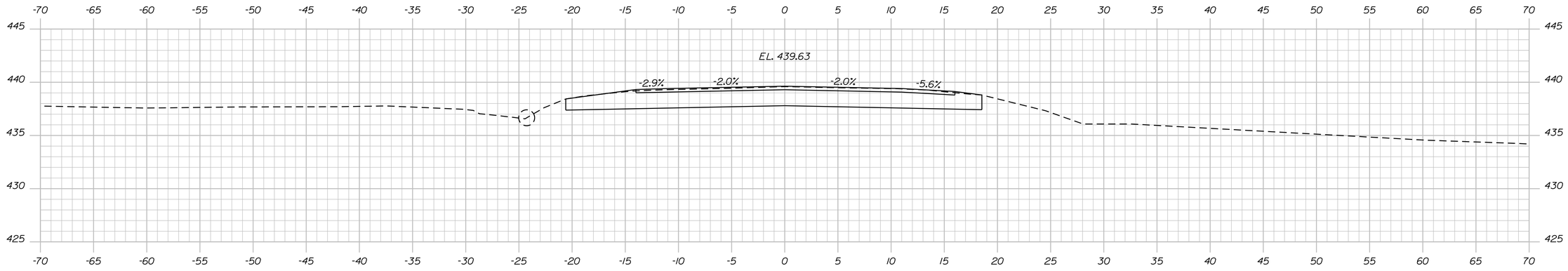
CROSS SECTIONS

SHEET NUMBER

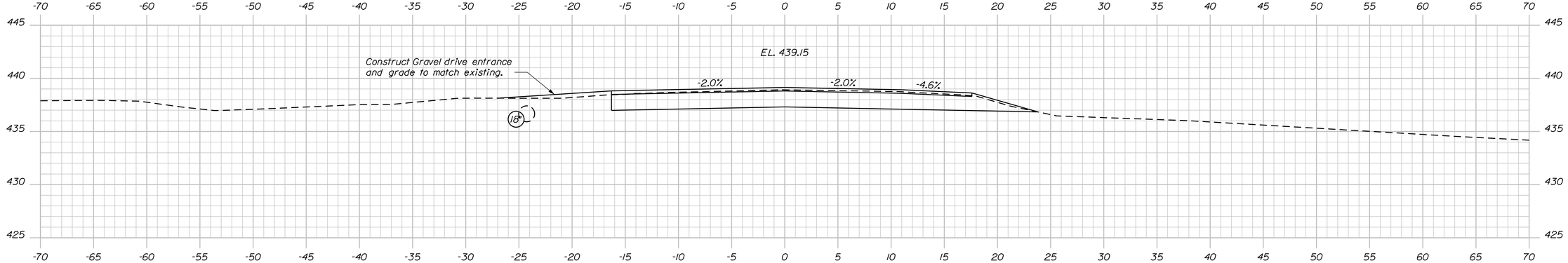
10

OF 14

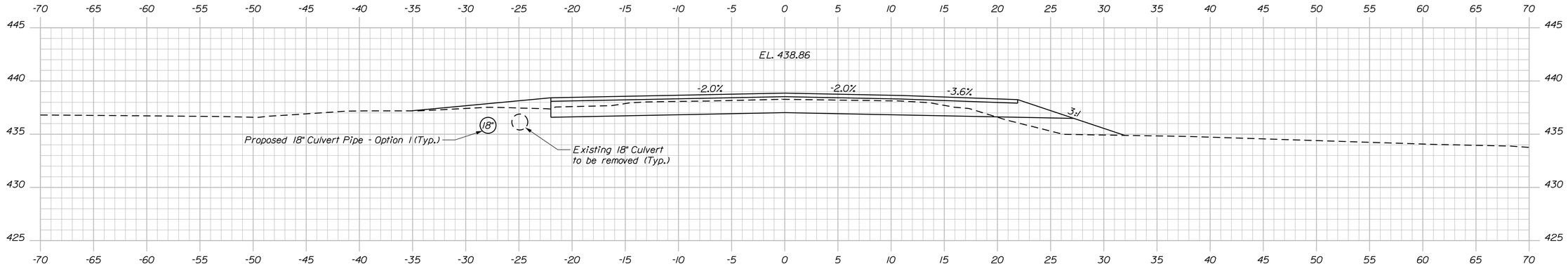
Sta. 4+25.00 to Sta. 4+75.00



5+50.00
End Project
Begin Transition



5+25.00



5+00.00

Sta. 5+00.00 to Sta. 5+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN
021706.00

BRIDGE NO. 5378

BRIDGE PLANS

	BY	DATE
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REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

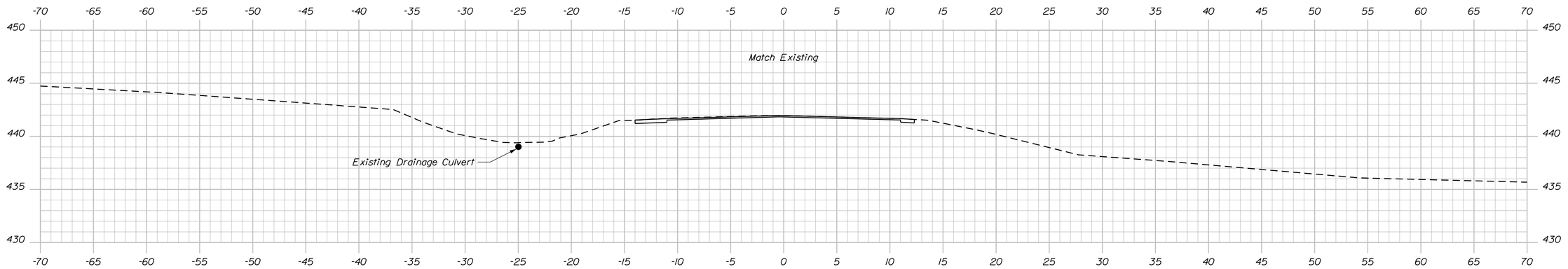
CROSS SECTIONS

SHEET NUMBER

11

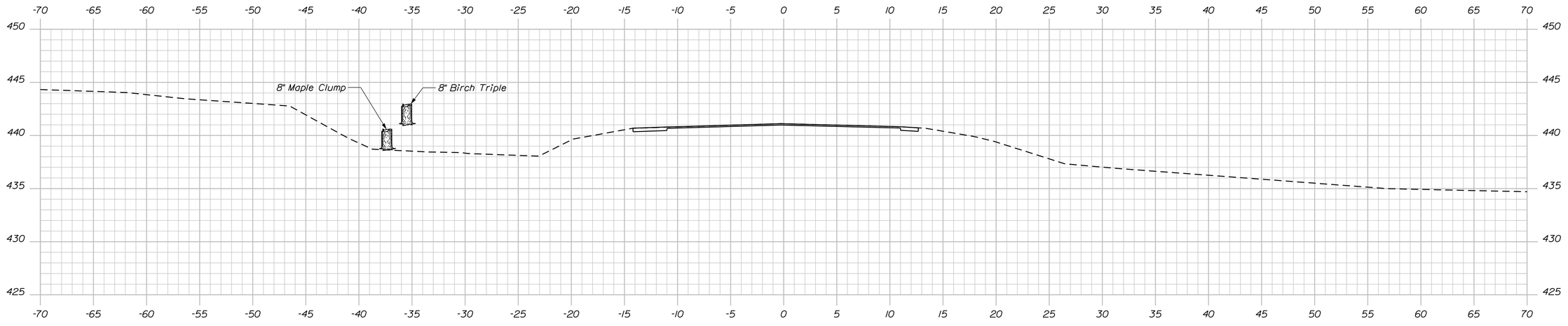
OF 14

Filename: ...\MSTA\011_XSECT_5+00_006.dgn Division: BRIDGE Username: armond.j.paradis Date:12/3/2018

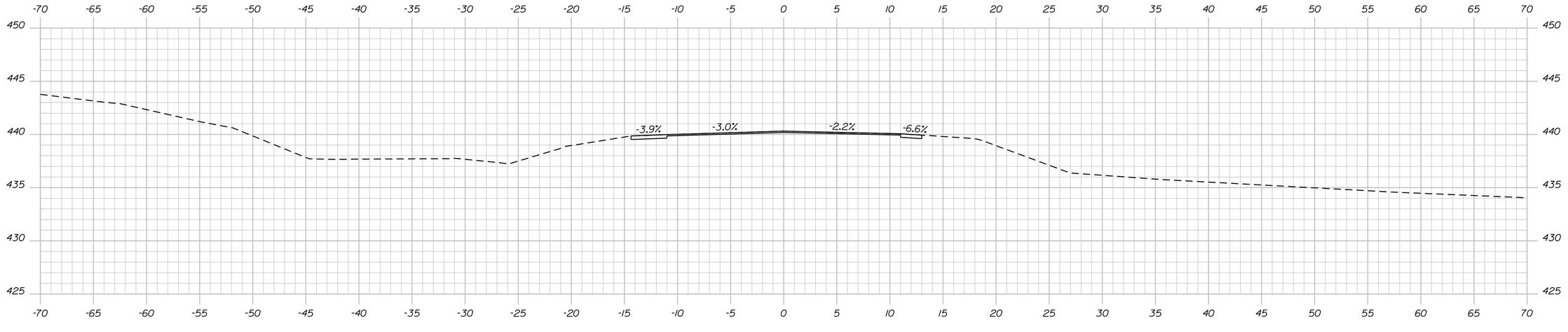


6+25.00

End Mill and Overlay 1.5" Thick



6+00.00



5+75.00

End Transition

Begin Mill and Overlay 1.5" Thick

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378

BRIDGE PLANS

	M. WIGHT	BY	DATE
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FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

CROSS SECTIONS

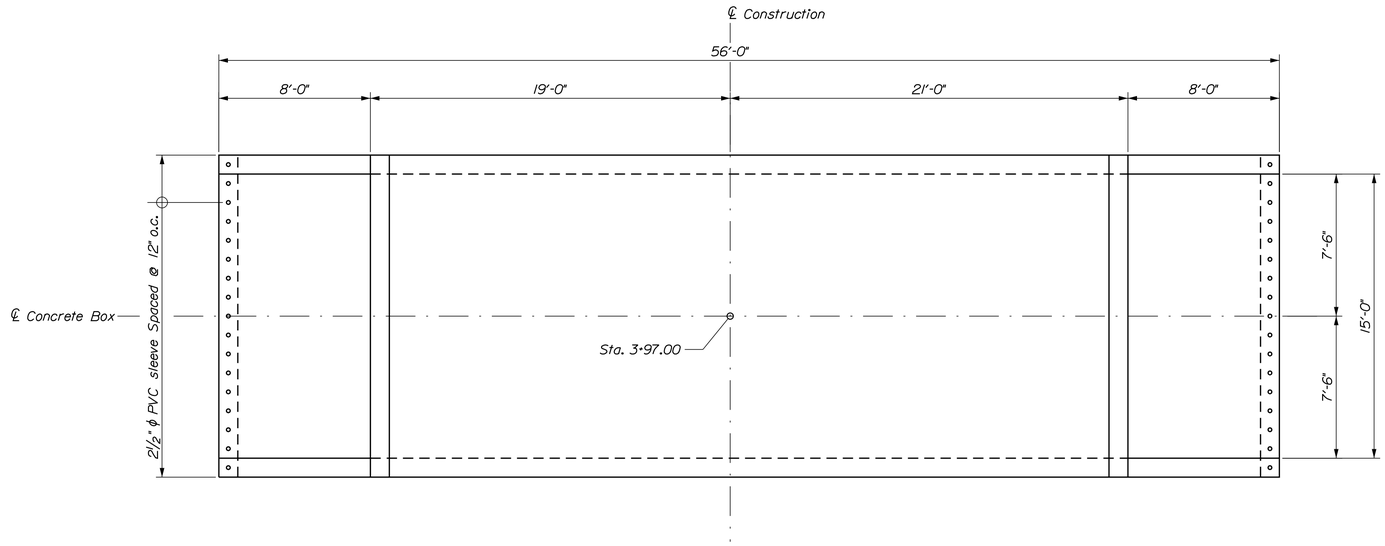
SHEET NUMBER

12

OF 14

Sta. 5+75.00 to Sta. 6+25.00

Filename: ...\MSTA\012_XSECT_5+75_007.dgn Division: BRIDGE Username: armond.j.paradis Date:12/3/2018



PRECAST CONCRETE BOX

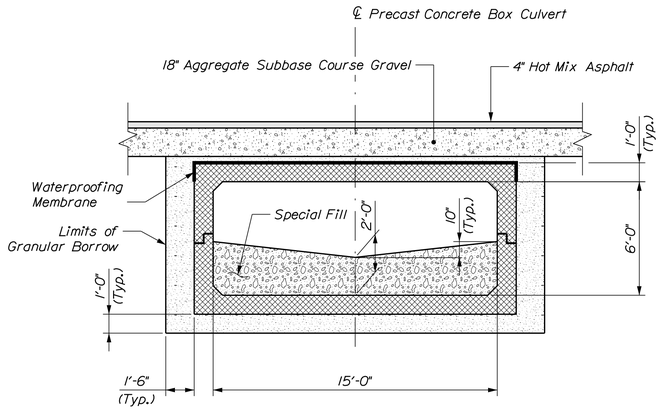
(15'-0" Span x 6'-0" Rise)

PRECAST CONCRETE BOX NOTES

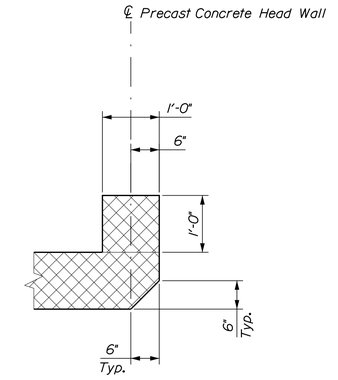
1. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches over the top of the units.

2. Install standard membrane waterproofing over the top and to 12 inches down the exterior sides of the precast units.

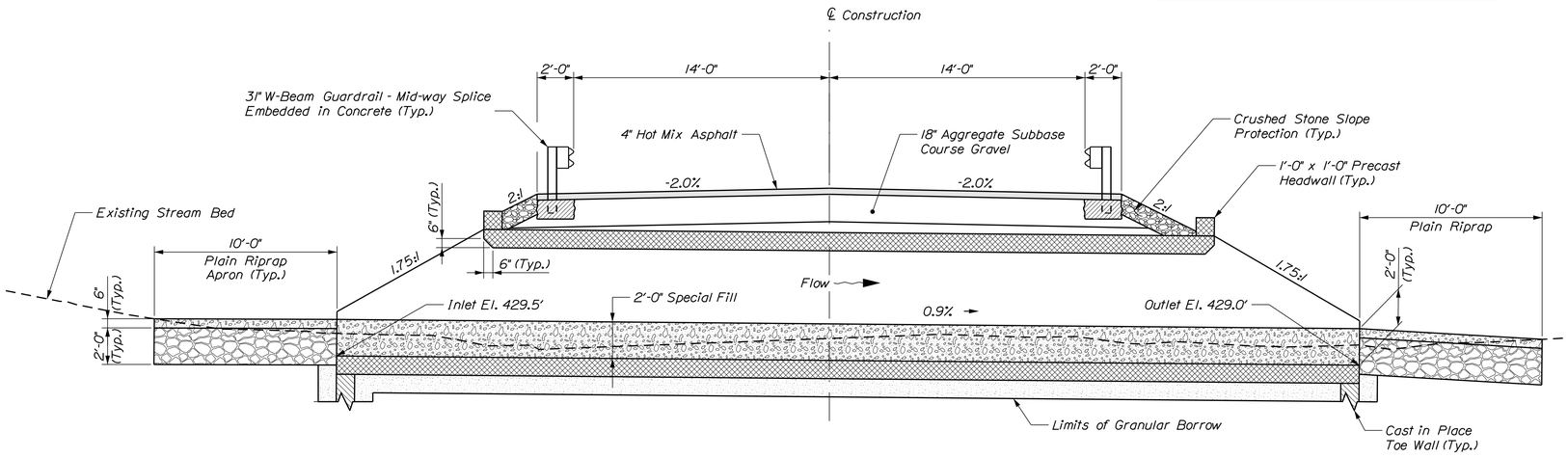
3. The contractor shall use a "clamshell" type structure. Joining the top and the bottom sections shall be in accordance with the manufacturer's specifications.



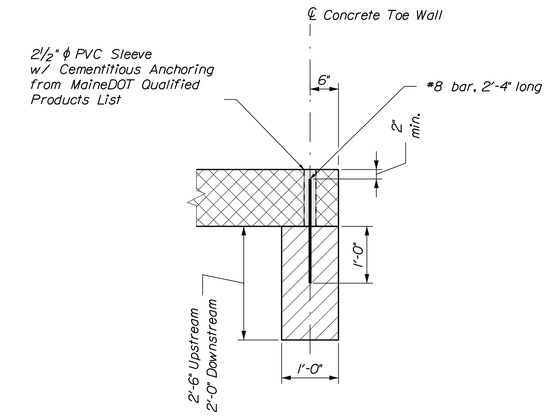
TYPICAL CONCRETE BOX SECTION



PRECAST CONCRETE HEADWALL DETAIL



TYPICAL BRIDGE SECTION



CONCRETE TOEWALL DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2170(600)

WIN 021706.00

BRIDGE NO. 5378

BRIDGE PLANS

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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

FARROW LAKE STREAM BRIDGE
DEADMAN STREAM
TOPSFIELD WASHINGTON COUNTY

PRECAST CONCRETE BOX CULVERT

SHEET NUMBER

13

OF 14

Filename: ...\MSTA\013_Box-Culvert.dgn Division: BRIDGE Username: armond.j.paradis Date:12/3/2018

PLAN LEGEND

Town, County, State	New R/W Along Existing R/W	Sanitary Sewer	Traveled Way	Cut Line	Fill Line		
Approx. Property Lines P.L.	Building	Telephone Line	Ditch	Stonewall	Retaining Wall		
Existing Right of Way	Clearing Limit Line CLL	Electric Line	Catch Basin	Baseline 10+00 11+00 12+00			
Limits of Wrought Portion L.O.W.P.	Trees Conifer / Deciduous	Water Line	Manhole	Monument	Traverse Point		
Control Of Access C.O.A.	Tree Line / Bush Line	Underdrain Line	Sewer Manhole	Iron Rod Found IRF	Pipe Found IPF		
New Right of Way	Water Edge	Gas Line	Utility Pole	Replacement Pin Set			
New Easement	Ledge / Rock/Boulder / Flag Pole	Guardrail	Fire Hydrant				
New Temporary Rights	Fence CHAIN LINK / BARB WIRE / STOCKADE	Culvert	Curbing				
New R/W Within Existing R/W	Sign / Well / Mailbox						

Existing / Proposed

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

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

25 0 25 50 75 100
Scale of Feet

SEE SUBDIVISION PLAN
OF JOHN H. BAILEY PROPERTY
BY ANDREWS & LANE INC.
DATED AUGUST 29, 1977
W.C.R.D. PLAN BOOK H-1, PAGE 4

GRID
MAINE 2000 WEST ZONE

LORRAINE W. BAILEY
JOHN N. BAILEY
ITEM NO. (1)
SLOPE EASE. = 1310± S.F. (1)
TEMP. ROAD RIGHTS = 0.08± AC. (1)
TEMP. CONST. RIGHTS =120± S.F. (1)
TOTAL AREA = 113.6± AC. (TAX CARD)

LAWRENCE W. TIBBETTS
BETTY J. TIBBETTS

FARROW LAKE STREAM
FLOW
TEMPORARY
0.08± AC.
ROAD
CLL
LIMITS
EASE.
SLOPE
1310± S.F.
TEMP. CONST.
120± S.F.
RIGHT OF WAY TO OTHERS
P.L.
*953 SERVICE
MOSTLY HARDWOODS
GRAVEL
8" MAPLE CLUMP
8" BIRCH TRIPLE
3' DIA LILAC
14" SPRUCE
15" CPP
1+09
TO MUSQUASH LAKE
2+00
BEGIN B.L.
400.00'
N 37°48'59.8" E
3+00
4+00
5+00
6+00
END B.L.
7+00
TO ROUTE 1
STATE HIGHWAY "311"/ ROUTE 6 / LAKEVIEW ROAD
CHEVRON ARROW
2X5X3
35'
45'
50'
40'
CURVE AHEAD
30" OAK
520± S.F.
TEMP. CONST.
215± S.F.
SLOPE
435± S.F.
TEMP. CONST.
2" DIA IRON PIPE
PC = STA. 6+24.01

NISHELE E. BELL
ITEM NO. (2)
SLOPE EASE. = 215± S.F. (1)
TEMP. CONST. RIGHTS =520± S.F. (1)
TOTAL AREA = 31.0± AC. (PER DEED)

CHRISTINE C. GOLDSMITH
ITEM NO. (3)
SLOPE EASE. = 295± S.F. (1)
TEMP. CONST. RIGHTS = 435± S.F. (1)
TOTAL AREA = 2.8± AC. (PER DEED)

CURVE DATA #1
PI = 7+07.43
D = 2°00'12.1"
Δ = 3°20'29.5" Rt.
R = 2860.00'
L = 166.80'
T = 83.42'
E = 1.22'

NISHELE E. BELL

SEE SURVEY PLAN
OF THE FORMER CHARLES FAIRHEAD LAND
FOR LORRAINE BAILEY
REVISED 2001 FOR PETER BROWN
BY JAMES H. HARRIS
DATED NOVEMBER 26, 2001
W.C.R.D. CABINET NO. 11, DRAWER NO. 40

74.00

EXISTING RIGHT OF WAY REFERENCE

WASHINGTON COUNTY COMMISSIONERS RECORDS
VOLUME 2, PAGE 344
1836, 4 RODS WIDE (66')

FARROW LAKE STREAM BRIDGE
OVER
FARROW LAKE STREAM

BRIDGE NO. 5378 WIN 021706.00

TECH	CHECKED
T.L.B.	
T.L.B.	
T.L.B.	D.S.G.

ITEM	PLAN
EXISTING CONDITION PLAN	
FINAL RIGHT OF WAY	
AREAS	

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

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	9/17/18	4497	140

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "311"
ROUTE 6 / LAKEVIEW ROAD
TOPSFIELD WASHINGTON COUNTY
FEDERAL AID PROJECT NO. STP-2170(600)

JUNE 2018	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 15-330
SCALE 1" = 25'	SHEET 1 OF 1	

SHEET NUMBER
14
OF 14

Username: armond.j.porodis Date:12/3/2018
Division: BRIDGE
Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

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

TRAFFIC DATA

Current (2018) AADT	820
Future (2038) AADT	900
DHV - % of AADT	12
Design Hour Volume	108
Heavy Trucks (% of AADT)	25
Heavy Trucks (% of DHV)	24
Directional Distribution (% of DHV)	51
18 kip Equivalent P 2.0	372
18 kip Equivalent P 2.5	355
Design Speed (mph)	50

HYDROLOGIC DATA

Drainage Area	4.55 sq mi
Design Discharge (Q50)	496.2 cfs
Check Discharge (Q100)	581.2 cfs
Headwater Elevation (Q1.1)	379.2 ft
Headwater Elevation (Q25)	383.9 ft
Headwater Elevation (Q50)	384.9 ft
Headwater Elevation (Q100)	386.1 ft
Discharge Velocity (Q1.1)	10.32 fps
Discharge Velocity (Q50)	15.95 fps
Discharge Velocity (Q100)	16.61 fps

MATERIALS

Invert Lining	Shotcrete or Class "A"
Reinforcing Steel	ASTM A 615, Grade 60

BASIC DESIGN STRESSES

Concrete:

Class A	f'c = 4000 psi
Shotcrete	f 'c = 5000 psi
Reinforcing Steel	f y = 60,000 psi

TOPSFIELD
WASHINGTON COUNTY
FLOOD BROOK BRIDGE
OVER
FLOOD BROOK
ROUTE 6
FEDERAL PROJECT NO. STP-2175(300)
BRIDGE NO. 2288

LIST OF DRAWINGS

UTILITIES

Fairpoint Communications
Eastern Maine Electric Coop

MAINTENANCE OF TRAFFIC

Maintain one 12'-0" wide lane of alternating traffic using flaggers during periods of work.

PROJECT LOCATION	Flood Brook Bridge No. 2288 Which Carries Route 6 Over Flood Brook. Located 1.41 Miles East Of Kossuth TWP. Latitude 45°-24'-10.3" N Longitude 67°-48'-44.8" W
PROGRAM AREA	Highway Bridges - Minor Spans
OUTLINE OF WORK	Bridge Culvert Rehabilitation

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: — DATE 12/11/18
CHIEF ENGINEER: — DATE 12-11-18

STATE OF MAINE · Richard E Myers · 12670 · LICENSED PROFESSIONAL ENGINEER
SIGNATURE 12,670
P.E. NUMBER 12670
DATE December 4, 2018

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	M. WIGHT
DESIGNER	B. BARTLETT
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 021753.00
STP-2175(300)

TOPSFIELD
FLOOD BROOK BRIDGE

TITLE SHEET

SHEET NUMBER 1 OF 6

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.325	STRUCTURAL CONCRETE CULVERT INVERT LINING (35 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	5,425	LB
503.13	REINFORCING STEEL, PLACING	5,425	LB
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
610.16	HEAVY RIPRAP	40	CY
615.07	LOAM	5	CY
618.14	SEEDING METHOD NUMBER 2	1	UN
619.14	EROSION CONTROL MIX	10	CY
620.58	EROSION CONTROL GEOTEXTILE	80	SY
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
639.19	FIELD OFFICE TYPE B	0.5	EA
652.33	DRUM	50	EA
652.34	CONE	75	EA
652.35	CONSTRUCTION SIGNS	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	360	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
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. Payment for equipment, labor, and materials to access the work, as well as to re-establish original ground, will be considered incidental to related contract items.

4. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

5. 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.

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

7. 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.

8. 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.

9. The project geotechnical report titled Geotechnical Data Report for Flood Brook Bridge, Soils Report 2018-45, dated November 15, 2018 may be accessed at the MaineDOT web address.

10. 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.

11. 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.

12. Payment for any guardrail that needs to be removed and reset for access purposes shall not be made separately but shall be considered incidental to related contract items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2175(300)

WIN 021753.00

BRIDGE NO. 2288

BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN-DETAILED	B. BARTLETT	M.R.P.	MAR 2018
CHECKED-REVIEWED	B. SLAVEN	T. WHITE	JUL 2017
DESIGN2-DETAILED2	B.SLAVEN		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

FLOOD BROOK BRIDGE
FLOOD BROOK
TOPSFIELD WASHINGTON COUNTY

ESTIMATED QUANTITIES &
GENERAL CONSTRUCTION NOTES

SHEET NUMBER

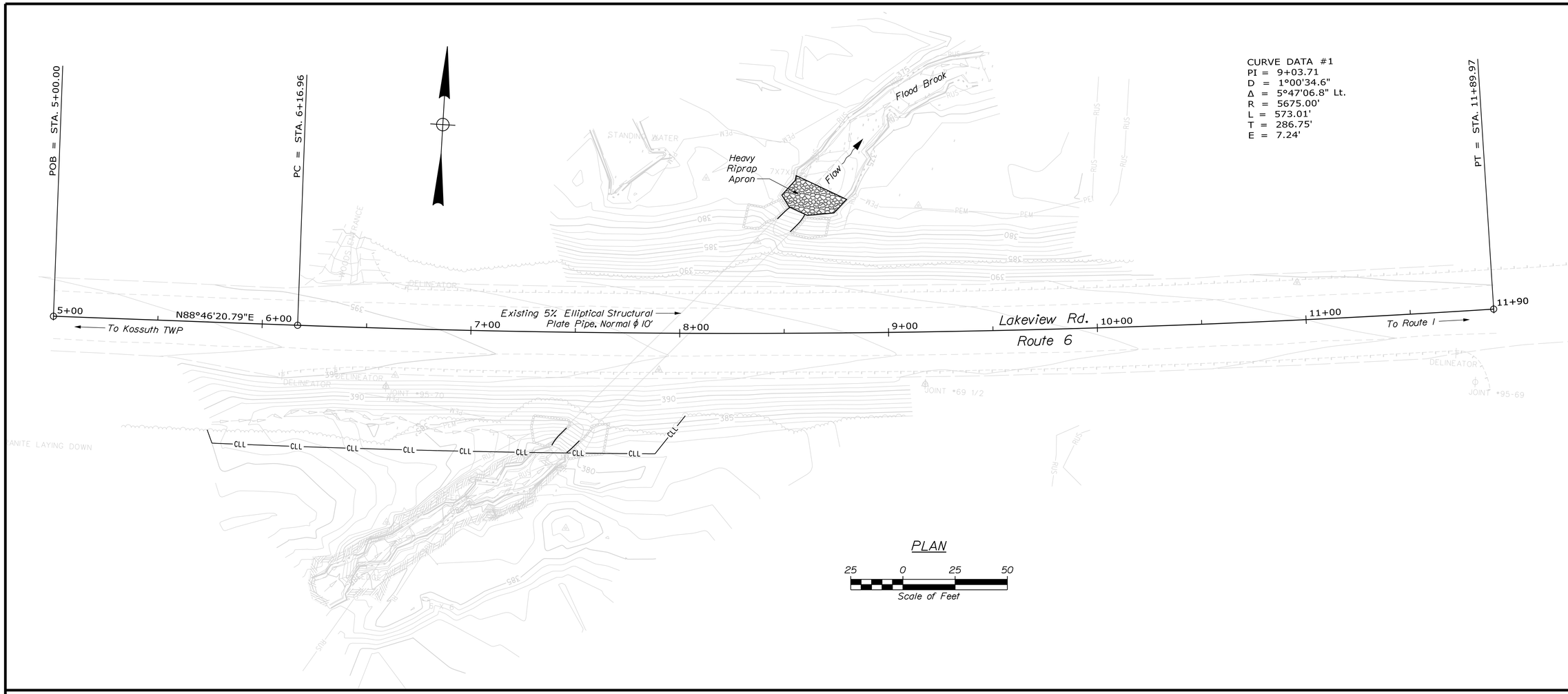
2

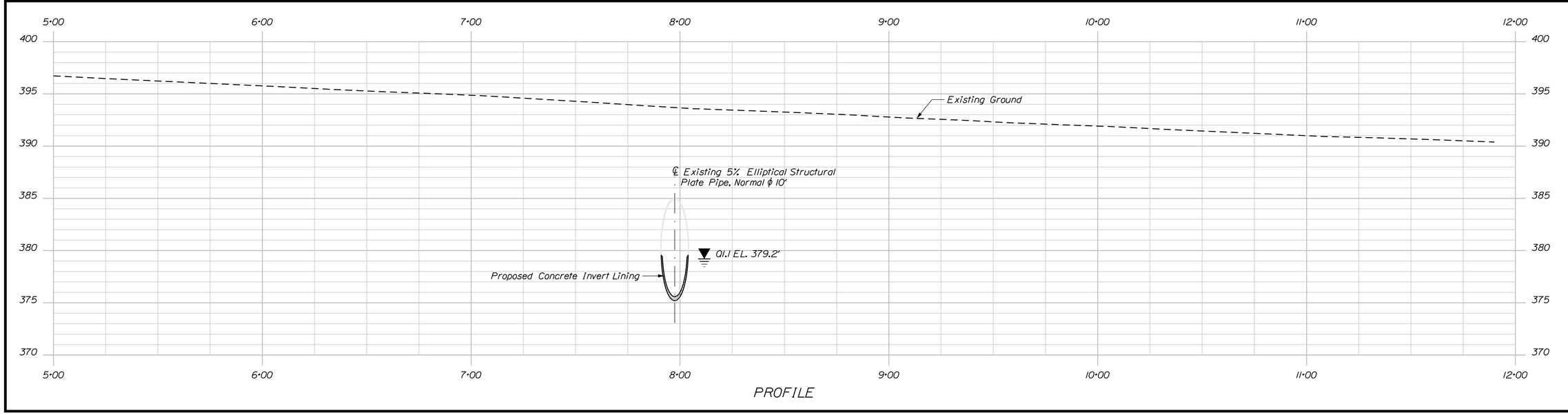
OF 6

Username: Benjamin.J.Bartlett Date:12/4/2018

Division: BRIDGE

Filename: ...\002_Estimate_Gen_Notes.dgn





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2175(300)

WIN 021753.00

BRIDGE NO. 2288

BRIDGE PLANS

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SIGNATURE

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DATE

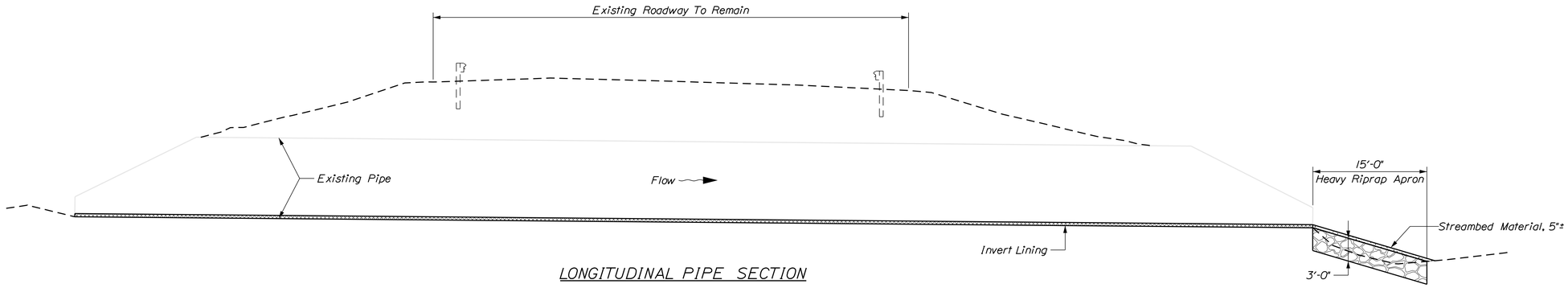
FLOOD BROOK BRIDGE
FLOOD BROOK
TOPSFIELD WASHINGTON COUNTY

GENERAL PLANS & PROFILE

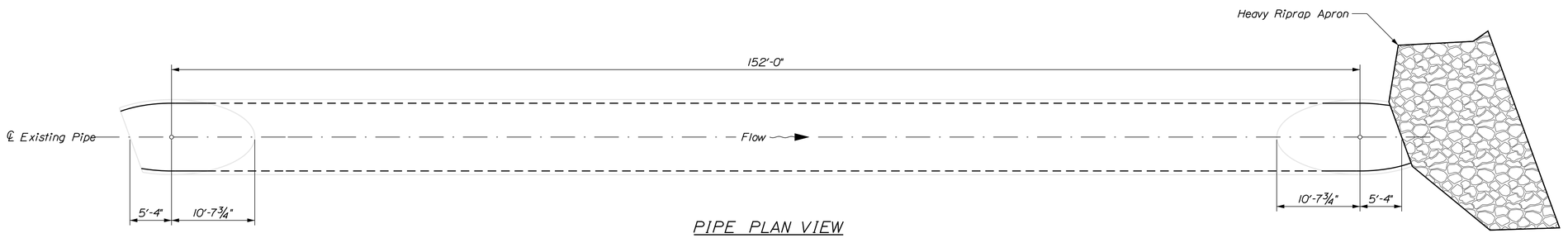
SHEET NUMBER

3

OF 6



LONGITUDINAL PIPE SECTION



PIPE PLAN VIEW

INVERT LINING NOTES:

1. All debris in the existing pipe shall be removed and disposed of properly. Surfaces of the pipe against which concrete is to be placed shall be thoroughly cleaned so as to remove all loose corrosion. In areas where the metal is nonexistent, a preliminary concrete placement shall be made, using forms where required, to fill voids and to establish the original lines of the pipe. Payment for this work will be considered incidental to Item No. 502.325, Structural Concrete Invert Lining. The final concrete placement shall then be made as shown.

2. Four (4) rows of shear connectors shall be staggered longitudinally at 12-in. spacing along each side of the pipe barrel. Shear connectors shall be ½-in. x 3-in. studs or machine bolts welded to the crests of the pipe corrugations. Approximately 1,300 shear connectors are required.

3. The existing pipe may have a slight deformation requiring field bending and/or cutting of the reinforcing steel. Payment for any necessary adjustments will be considered incidental to related Contract items.

4. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.

5. Payment for the Asphalt Emulsion will be considered incidental to related Contract items.

6. Stream water shall not be allowed contact with fresh concrete until the PH factor is 8.5 or less and within the PH unit of the background PH level in the stream.

7. If undermining of the existing culvert is apparent, backfill the undermining to the end of the culvert with site excavated material (preferably streambed material if available, typical upstream and downstream) and top dress with riprap. Payment for this work will be considered incidental to the riprap pay item.

8. Wash in excavated streambed material during placement of the proposed riprap apron downstream to fill the voids of the riprap and to provide a cover of streambed material over the finished grade. This work shall be considered incidental to the Riprap pay item.

STATE OF MAINE
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BRIDGE NO. 2288

BRIDGE PLANS

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DESIGN-DETAILED	B. BARTLETT	MAR 2018
CHECKED-REVIEWED	M.R.P.	
DESIGN2-DETAILED2	B.SLAVEN	JUL 2017
DESIGN3-DETAILED3	T.WHITE	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

FLOOD BROOK BRIDGE
FLOOD BROOK
TOPSFIELD WASHINGTON COUNTY

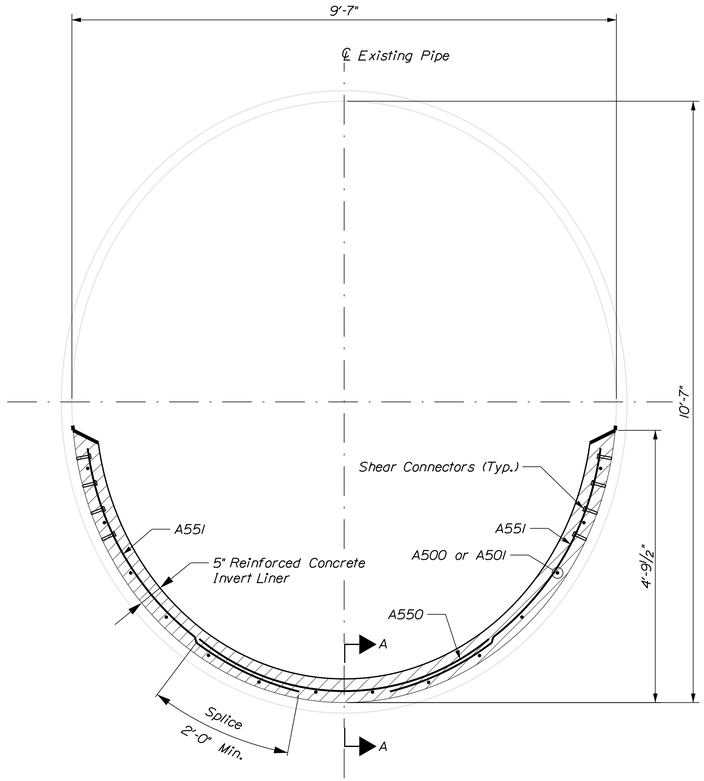
INVERT LINING DETAILS

SHEET NUMBER

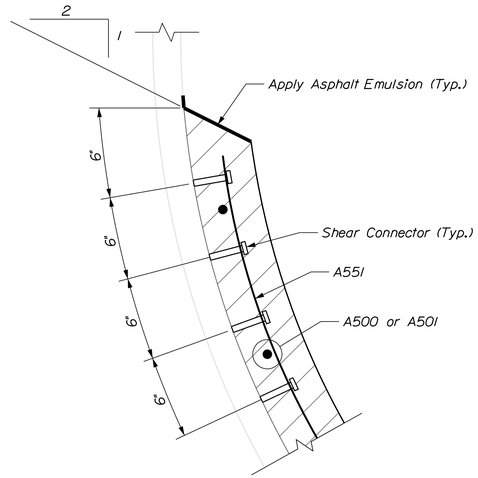
4

OF 6

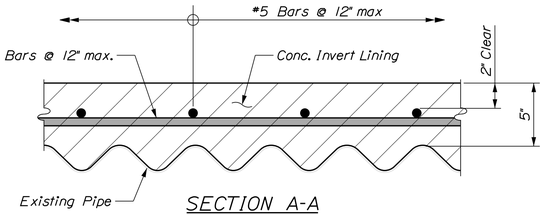
Filename: ...\004_Invert_Lining_Detail_1.dgn Division: BRIDGE Username: Benjamin.J.Bartlett Date:12/4/2018



TYPICAL PIPE SECTION
(5% Elongated Multi-Plate)

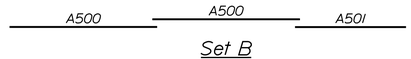


SHEAR CONNECTOR LAYOUT

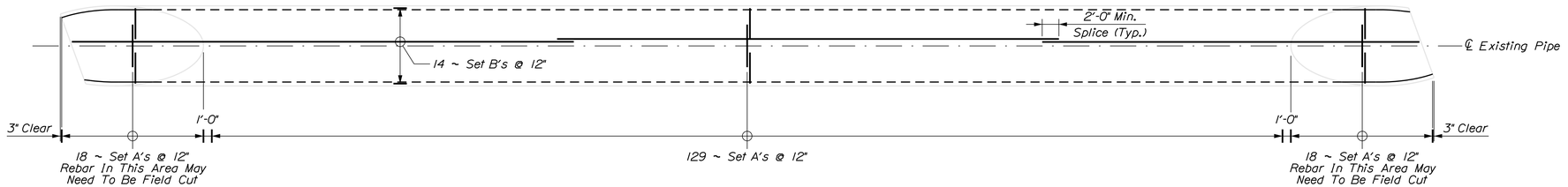


SECTION A-A

Set A
1 ~ A550 & 2 ~ A551



Set B
2 ~ A500 & 1 ~ A501



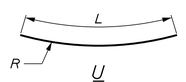
PLAN VIEW

STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION
A500	28	60'-0"	Culvert Invert Liner
A501	14	45'-0"	Culvert Invert Liner

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
A550	165	5'-6"	U										4'-0"	Culvert Invert Liner
A551	330	6'-0"	U										5'-0"	Culvert Invert Liner



U

All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A 615/A 615M, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

Mark "A502" = bar size #5
Mark "P805" = bar size #8
Mark "S650" = bar size #6

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2175(300)

WIN 021753.00

BRIDGE NO. 2288

BRIDGE PLANS

PROJ. MANAGER	M. WIGHT	BY	DATE
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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FLOOD BROOK BRIDGE
FLOOD BROOK
TOPSFIELD WASHINGTON COUNTY

INVERT LINING DETAILS

SHEET NUMBER
5
OF 6

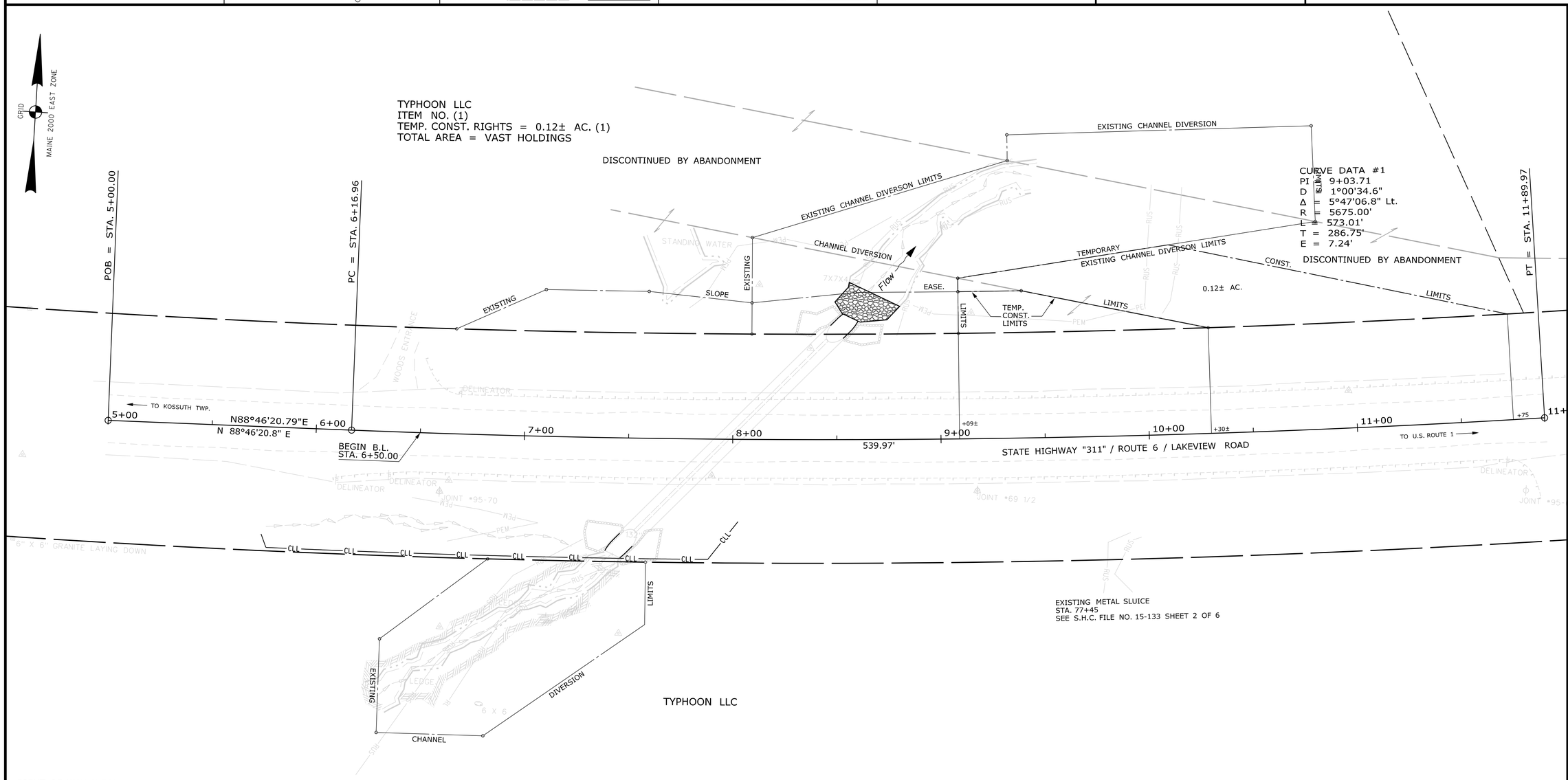
PLAN LEGEND

Town, County, State	New R/W Along Existing R/W	Existing	Proposed	Existing	Proposed	Cut Line	Fill Line
Approx. Property Lines P.L.	Building	Sanitary Sewer		Traveled Way		Stonewall	Retaining Wall
Existing Right of Way	Clearing Limit Line CLL	Telephone Line	T	Ditch		Baseline 10+00 11+00 12+00	
Limits of Wrought Portion L.O.W.P.	Trees Conifer Deciduous	Electric Line	E	Catch Basin		Monument	Traverse Point
Control Of Access C.O.A.	Tree Line Bush Line	Water Line	W	Manhole		Iron Rod Found IRF	Pipe Found IPF
New Right of Way	Water Edge	Underdrain Line		Sewer Manhole		Replacement Pin Set	
New Easement	Ledge Rock/Boulder Flag Pole	Gas Line	G	Utility Pole			
New Temporary Rights	Fence CHAIN LINK BARB WIRE STOCKADE	Guardrail		Fire Hydrant			
New R/W Within Existing R/W	Sign Well WELL Mailbox	Culvert		Curbing			

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

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

25 0 25 50 75 100
Scale of Feet



RIGHT OF WAY INFORMATION

MAINE STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP - STATE HIGHWAY "311"
TOPSFIELD, WASHINGTON COUNTY
FEDERAL AID PROJECT NO. S-0311(8)
DATED OCTOBER 1968
S.H.C. FILE NO. 15-133, SHEETS 2 OF 6
WASHINGTON COUNTY REGISTRY OF DEEDS
PLAN BOOK 5, PAGE 35

FLOOD BROOK BRIDGE
OVER
FLOOD BROOK

BRIDGE NO. 2288 WIN 021753.00

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
1	TYPHOON LLC,	T.C.R.	10/15/18		

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "311"
ROUTE 6 / LAKEVIEW ROAD
TOPSFIELD WASHINGTON COUNTY
FEDERAL AID PROJECT NO. STP-2175(300)

AUGUST 2018	RIGHT-OF-WAY MAP	
SCALE 1" = 25'	SHEET 1 OF 1	

ITEM	CHECKED
EXISTING CONDITION PLAN	
FINAL RIGHT OF WAY	
AREAS	

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

SHEET NUMBER
6
OF 6