STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fifth Edition 2010.

DESIGN LOADING

Live Load	HL - 93

TRAFFIC DATA

Current (2012) AADT	330
Future (2022) AADT	360
Future (2032) AADT	400
DHV - % of AADT	13
Design Hour Volume	52
Heavy Trucks (% of AADT)	6
Heavy Trucks (% of DHV)	3
Directional Distribution (% of DHV)	51
18 kip Equivalent P 2.0	9
18 kip Equivalent P 2.5	8
Design Speed (mph)	45

HYDROLOGIC DATA

Drainage Area	17.96 sq mi
Design Discharge (Q50)	942 cfs
Check Discharge (Q100)	1079.1 cfs
Headwater Elevation (Q50)	295.67 ft
Headwater Elevation (Q100)	296.01 ft
Discharge Velocity (Q50)	6.37 fps
Discharge Velocity (Q100)	6.96 fps
Headwater Elevation (Q1.1)	292.90 ft
Discharge Velocity (Q1.1)	2.26 fps
Headwater Elevation (Q25)	295.32 ft

LEBANON
YORK COUNTY
FORD BRIDGE
OVER
BRANCH OF LITTLE RIVER
FALL RD.
PROJECT NO. BR-1787(300)X
PROJECT LENGTH 0.025 mi.
BRIDGE NO. 1219

LIST OF DRAWINGS

MATERIALS

Concrete:	
Barriers, Curbs, Sidewalks & Transition Barriers	Class "LP"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Structural Steel:	
All Material (except as noted)	ASTM A 709, Grade 36
Anchor Rods	ASTM F1554, Grade 36

BASIC DESIGN STRESSES

Concrete:	
Class "A"	f 'c = 4,350 psi
Class "LP"	f 'c = 5,075 psi
Reinforcing Steel	f y = 60,000 psi
Structural Steel:	
ASTM A 709, Grade 50W	F y = 50,000 psi
ASTM A 709, Grade 36	F y = 36,000 psi

UTILITIES

Central Maine Power Company

MAINTENANCE OF TRAFFIC

Detour traffic from Little River Rd to Route 11/202 to Philbrick Rd/Fall Rd

PROJECT LOCATION:	0.2 miles East along Fall Rd. from Little River Rd. (1.8 miles SW of Rt. 11/202)
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	BRIDGE ABUTMENT AND SUPERSTRUCTURE REHABILITATION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE 1/6/12
COMMISSIONER:
CHIEF ENGINEER: DATE 1/9/12

STATE OF MAINE — ERIC D. CALDERWOOD No. 9099 — LICENSED PROFESSIONAL ENGINEER

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	B. CONDON
DESIGNER	O. KRAUSS
CONSULTANT	CALDERWOOD ENGINEERING
PROJECT RESIDENT	S. PAUL
CONTRACTOR	
PROJECT COMPLETION DATE	

SIGNATURE
P.E. NUMBER 9099
DATE DECEMBER 2011

WIN 17873.00

BR-1787(300)X

LEBANON
FORD BRIDGE

TITLE SHEET

SHEET NUMBER 1 OF 17

Filename:\017873.00\bridge\B01_Title.dgn Division: BRIDGE Username: Eric Calderwood Date:1/5/2012

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.23	REMOVING SINGLE TREE TOP ONLY	5	EA
201.24	REMOVING STUMP	5	EA
202.127	REMOVE EXISTING BITUMINOUS PAVEMENT (200 SY)	1	LS
202.21	REMOVE EXISTING SUBSTRUCTURE	15	CY
203.20	COMMON EXCAVATION	215	CY
206.082	STRUCTURAL EARTH EXC. - MAJOR STRUCTURES	25	CY
304.10	AGGR SUBB COURSE - GRAVEL	105	CY
403.210	HOT MIX ASPHALT 9.5MM HMA SURFACE	20	T
403.210	HOT MIX ASPHALT 9.5MM HMA BASE	20	T
409.15	BITUMINOUS TACK COAT - APPLIED	6	G
502.112	STRUCTURAL CONCRETE ANCHOR SYSTEM (5 CY)	1	LS
502.21	STRUCTURAL CONCRETE ABUT & RET WALL	25	CY
502.2481	PUMPED GROUT	1	LS
502.49	STRUCTURAL CONCRETE CURBS & SW (5 CY)	1	LS
502.83	PRECAST BLOCK MAT	1250	SF
503.12	REINFORCING STEEL, FAB & DEL	1600	LB
503.13	REINFORCING STEEL, PLACING	1600	LB
504.70	STRUCTURAL STEEL FABRICATED & DELIVERED (2500 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION (2500 LBS)	1	LS
506.144	FIELD PAINTING NEW & EXISTING STRUCTURAL STEEL	1	LS
506.17	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	1	LS
511.07	COFFERDAM - ABUTMENT NO. 1	1	LS
511.07	COFFERDAM - ABUTMENT NO. 2	1	LS
515.20	PROTECTIVE COATING FOR CONCRETE SURFACES	35	SY
517.61	SHOTCRETE	1	LS
526.301	TEMPORARY CONCRETE BARRIER TYPE 1 (60 LF)	1	LS
531.60	BRIDGE STRUCTURE - REMOVE AND RESET (40,000 LBS)	1	LS
606.23	GUARDRAIL TYPE 3C	37.5	LF
606.232	GUARDRAIL TYPE 3C - OVER 15 FT RADIUS	50	LF
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	4	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.74	GUARDRAIL TYPE 3 - SINGLE RAIL BRIDGE MOUNTED	125	LF
610.08	PLAIN RIPRAP	55	CY
615.07	LOAM	5	CY
618.1401	SEEDING METHOD #2 - PLAN QUANTITY	1	UN
619.12	MULCH	1	UN
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INC OPERATOR)	15	HR
631.14	GRADER (INC OPERATOR)	15	HR
631.15	ROLLER EARTH BASE CRS. (INC OPERATOR)	10	HR
631.171	TRUCK-SMALL (INC OPERATOR)	10	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.312	TYPE III BARRICADES	6	EA
652.33	DRUM	5	EA
652.34	CONE	5	EA
652.35	CONSTRUCTION SIGNS	198	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (61CD)	1	LS
656.75	TEMP. SOIL EROSION AND WATER POLL. CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. All Utility Facilities shall be adjusted by the respective Utilities unless otherwise noted.

2. For Easements, Construction Limits, and Right-Of-Way lines, refer to Right of Way Map.

3. 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 related Contract items.

4. Place Loam 2" deep on all side slopes.

5. Do not excavate for Aggregate Subbase Course where Existing Material is suitable as determined by the Resident.

6. 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" or less thick will be made under appropriate Equipment rental items.

7. 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 304.10, Aggregate Subbase Course - Gravel.

8. Two Flexible Reflectorized Guardrail Markers shall be installed at each leading Guardrail End and two at each trailing Guardrail End.

9. 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 appropriate Contract items.

10. Protective Coating for Concrete Surfaces shall be applied to the following areas:
    All exposed Surfaces of Concrete Curbs and Sidewalks,
    Fascia down to Drip Notch,
    Concrete Wearing Surfaces,
    Top of Abutment Backwalls and to 1' below the top of Backwalls on the back side.

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. The Contractor shall submit a Bridge Removal/Reset Plan to the Resident at least 30 business days prior to the start of the relocation work. The plan shall outline the methods and equipment to be used to relocate the bridge and dispose of all material cleaned off of the bridge. The plan shall also outline the method used to reset the bridge after rehabilitation and in stream work is complete. No work related to the relocation of the bridge shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Removal/Reset Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting, and finalizing, the Removal/Reset Plan will be considered incidental to the bridge relocation pay item.

13. The existing bridge shall be removed and rehabilitated to the limits indicated in the plans. Once the rehabilitation and the in stream work is complete the Contractor is responsible for resetting the existing bridge and the removal and appropriate disposal of components not re-used in the completed work. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Lead paint is not expected to be found on the existing structure. Payment for all labor, materials, equipment and other costs required to remove, rehabilitate, and reset the existing bridge will be considered incidental to the bridge removal pay item.

14. The Contractor shall submit an Abutment Rehabilitation Plan to the Resident at least 30 business days prior to the start of the rehabilitation work. The plan shall outline the methods and equipment to be used for the pointing and pumped grout rehabilitation to the existing abutments. It shall also include cofferdam details and containment methods. No work related to the rehabilitation of the abutments shall be undertaken by the Contractor until MaineDOT has reviewed the Abutment Rehabilitation Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting, and finalizing, the Abutment Rehabilitation Plan will be considered incidental to related items.

15. Payment for the removal and storage and replacement of the stream bed material will be paid for under Item No. 203.20 Common Excavation. Blending and wasting of excess stream bed material in the roadway base will be considered incidental to item number 502.83 Precast Block Mat, no separate payment shall be made.

16. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php.

17. The project Geotechnical Series 100 Report for the Rehabilitation of Ford Bridge, Lebanon, Maine, MaineDOT Soils Report No. 2011-114, August 17, 2011 may be accessed at the MaineDOT web address.

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

19. During construction the road will be closed to traffic for a time period specified in the Special Provisions.

20. Prior to submitting a bid the Contractor shall conduct a site inspection.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-17873(300)X

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	L. TIMBERLAKE		
DESIGN-DETAILED	OCK	OCK	NOV 2011
CHECKED-REVIEWED	CNM	JJH	DEC 2011
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

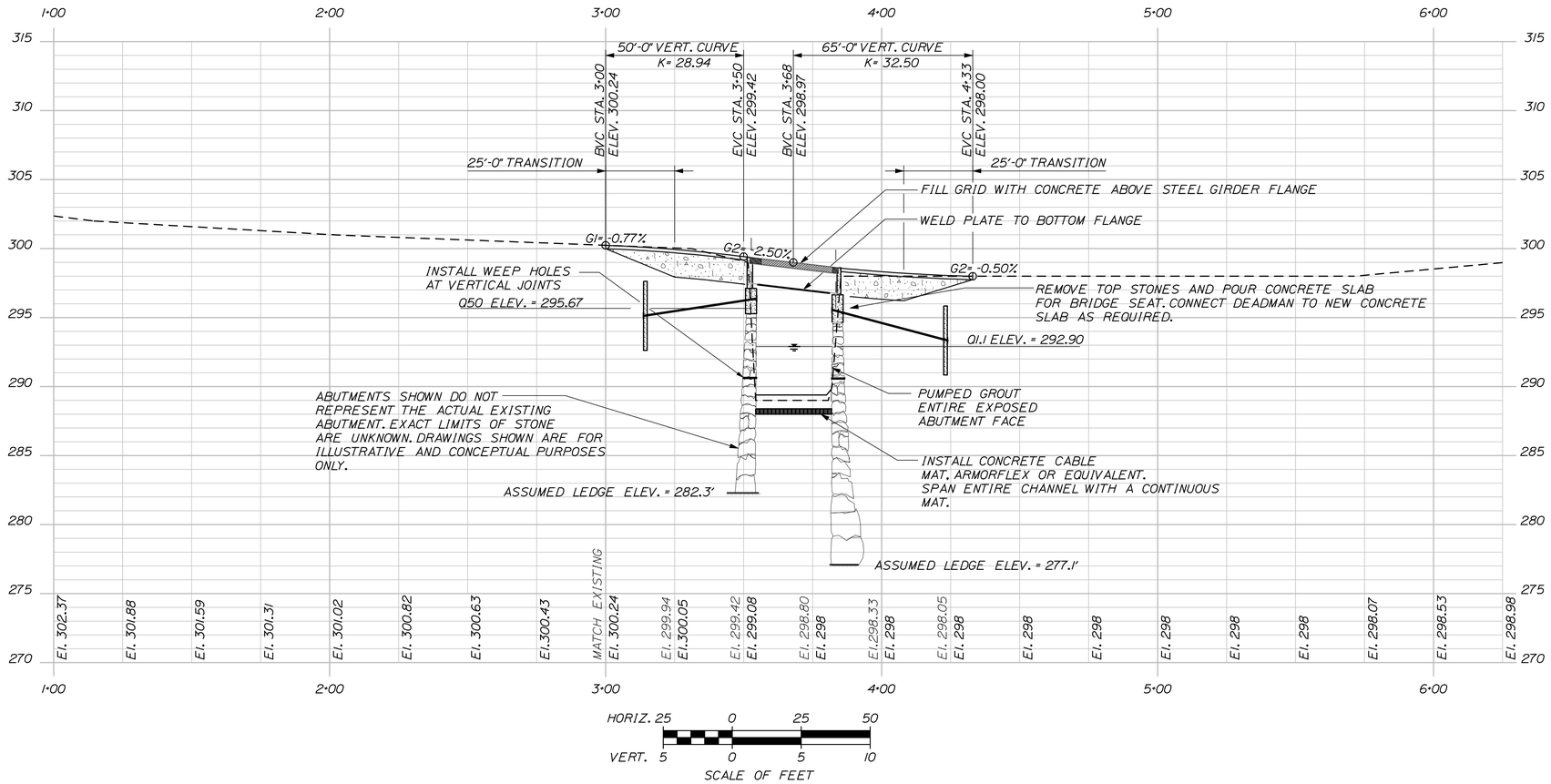
SIGNATURE
9099
P.E. NUMBER
11/2011
DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 17

CALDERWOOD ENGINEERING
222 RIVER ROAD
PO. BOX 1
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

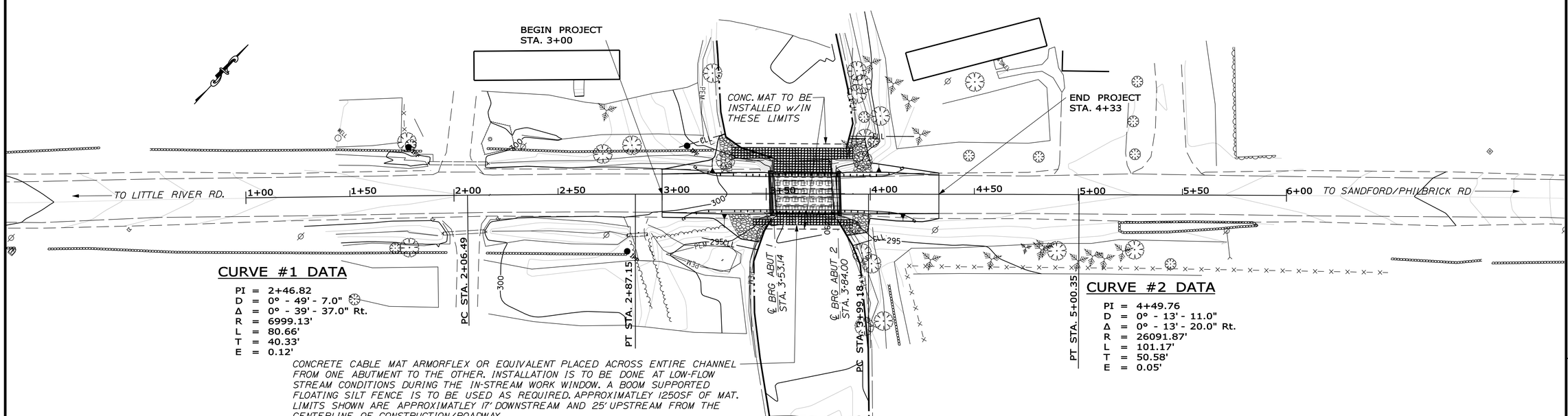


HORIZ. 25 0 25 50

VERT. 5 0 5 10

SCALE OF FEET

PROFILE - FORD BRIDGE OVER LITTLE RIVER- LEBANON



CURVE #1 DATA

PI = 2+46.82
D = 0° - 49' - 7.0"
Δ = 0° - 39' - 37.0" Rt.
R = 6999.13'
L = 80.66'
T = 40.33'
E = 0.12'

CURVE #2 DATA

PI = 4+49.76
D = 0° - 13' - 11.0"
Δ = 0° - 13' - 20.0" Rt.
R = 26091.87'
L = 101.17'
T = 50.58'
E = 0.05'

CONCRETE CABLE MAT ARMORFLEX OR EQUIVALENT PLACED ACROSS ENTIRE CHANNEL FROM ONE ABUTMENT TO THE OTHER. INSTALLATION IS TO BE DONE AT LOW-FLOW STREAM CONDITIONS DURING THE IN-STREAM WORK WINDOW. A BOOM SUPPORTED FLOATING SILT FENCE IS TO BE USED AS REQUIRED. APPROXIMATLEY 1250SF OF MAT. LIMITS SHOWN ARE APPROXIMATLEY 17' DOWNSTREAM AND 25' UPSTREAM FROM THE CENTERLINE OF CONSTRUCTION/ROADWAY

SITE PLAN

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	OGK	NOV 2011
CHECKED-REVIEWED	GNM	DEC 2011
DESIGN2-DETAILED2	-------	-------
DESIGN3-DETAILED3	-------	-------

B. CONDEN
SIGNATURE
9099
P.E. NUMBER
11/2011
DATE

REVISIONS	BY	DATE
REVISIONS 1	-------	-------
REVISIONS 2	-------	-------
REVISIONS 3	-------	-------
REVISIONS 4	-------	-------
FIELD CHANGES	-------	-------

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

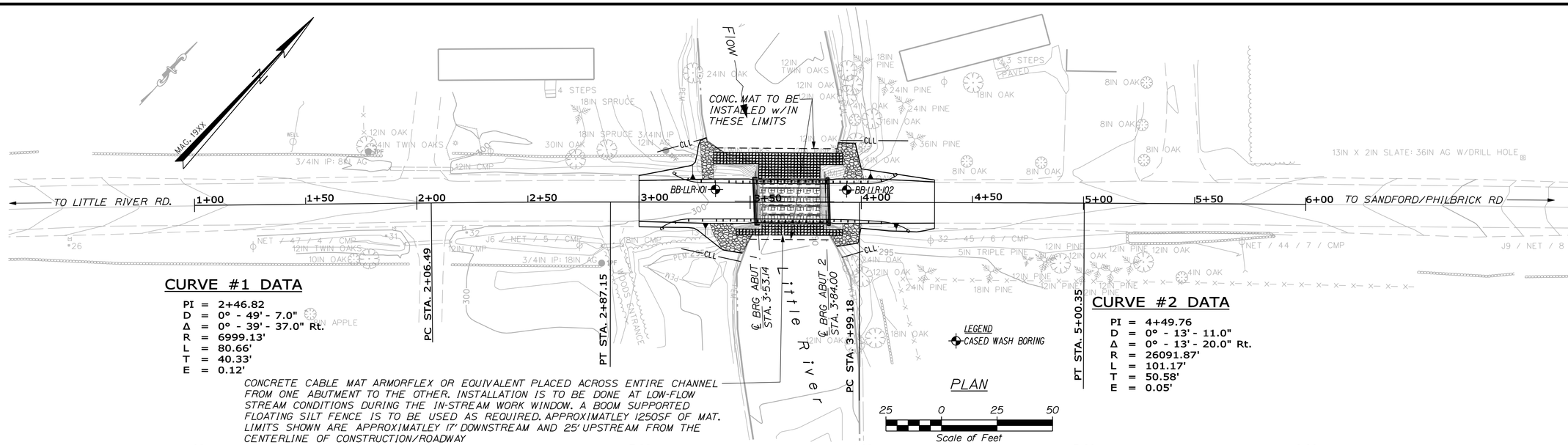
GENERAL PLAN AND PROFILE

SHEET NUMBER

3

OF 17

Filename: ...\mslo\003_Gen_Plan_Profile.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012



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T = 40.33'
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CURVE #2 DATA

PI = 4+49.76
D = 0° - 13' - 11.0"
Δ = 0° - 13' - 20.0" Rt.
R = 26091.87'
L = 101.17'
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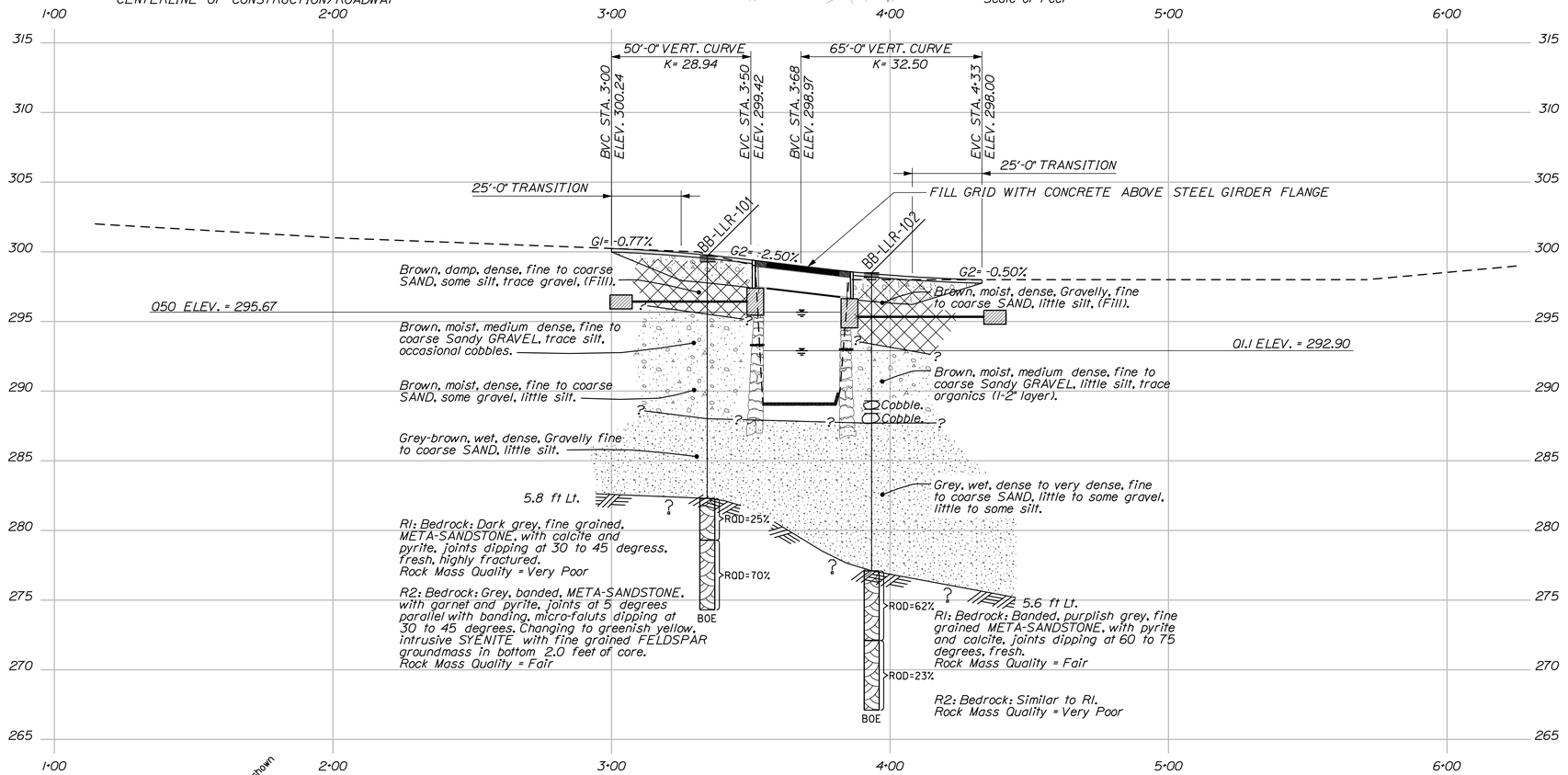
CONCRETE CABLE MAT ARMORFLEX OR EQUIVALENT PLACED ACROSS ENTIRE CHANNEL FROM ONE ABUTMENT TO THE OTHER. INSTALLATION IS TO BE DONE AT LOW-FLOW STREAM CONDITIONS DURING THE IN-STREAM WORK WINDOW. A BOOM SUPPORTED FLOATING SILT FENCE IS TO BE USED AS REQUIRED. APPROXIMATLEY 1250SF OF MAT. LIMITS SHOWN ARE APPROXIMATLEY 17' DOWNSTREAM AND 25' UPSTREAM FROM THE CENTERLINE OF CONSTRUCTION/ROADWAY



Boring No. Offset, ft shown
LEGEND
Pavement Thickness if applicable
Strata Interface
Boring
RQD= Rock Quality Designation for Rock Core Sample
BOE= Bottom Of Exploration

PROFILE
HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

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(300)X
WIN 17873.00
BRIDGE PLANS
BRIDGE NO. 1219

	BY	DATE
PROJ. MANAGER	-----	-----
DESIGN-DETAILED	K.MAGUIRE	MAR 2011
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE
P.E. NUMBER
DATE

FORD BRIDGE
LITTLE RIVER
YORK COUNTY
LEBANON

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
4
OF 17

Filename: ...\msta\005_BORING LOGS1.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Ford Bridge #1219 carries Fall Road over Little River
Location: Lebanon, Maine

Boring No.: BB-LLR-101
WIN: 17873.00

Driller:	MaineDOT	Elevation (ft.)	299.7	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	3/22/11; 08:00-11:30	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	3+34.4, 5.8 ft Lt.	Casing ID/OD:	HW & NW	Water Level*:	11.5 ft bgs.
Hammer Efficiency Factor: 0.84		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 = Insitu Vane Shear Test. PP = Pocket Penetrometer
MV = Unsuccessful Insitu 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
WOP = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = Hammer Efficiency Factor/60%*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
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	299.28		5" Pavement — 0.42	
	1D	24/19	1.50 - 3.50	11/15/7/4	22	31				Brown, damp, dense, fine to coarse SAND, some silt, trace gravel. (Fill).	G#245525 A-2-4, SM WC=28.2%
								295.70		4.00	
5	2D	24/14	5.00 - 7.00	4/5/9/5	14	20				Brown, moist, medium dense, fine to coarse Sandy GRAVEL, trace silt, occasional cobbles.	G#262369 A-1-a, GW-GM WC=4.4%
10	3D	3.6/3.6	10.00 - 10.30	55(3.6")	---		53			Brown, moist, dense, fine to coarse SAND, some gravel, little silt.	G#262370 A-1-b, SW-SM WC=17.4%
							14	288.80		10.90	
							7			Changed to NW Casing at 11.0 ft bgs., drove casing to 17.4 ft bgs. Roller Coned ahead to 15.0 ft bgs.	
							8				
15	4D	24/18	15.00 - 17.00	8/18/16/12	34	48	31				G#262371 A-1-b, SP-SM WC=13.2%
							59				
							64				
	R1	36/34	17.40 - 20.40	RQD = 25%			070 NQ-2	282.30		070 blows for 0.4 ft. — 17.40	
20										Top of Bedrock at Elev. 282.3 ft. R1:Bedrock: Dark grey, fine grained, META-SANDSTONE, with calcite and pyrite, joints dipping at 30 and 45 degrees, fresh, highly fractured. Rock Mass Quality = Very Poor. R1:Core Times (min:sec) 17.4-18.4 ft (2:40) 18.4-19.4 ft (3:50) 19.1-20.4 ft (4:40) 94% Recovery Core Blocked	
	R2	60/60	20.40 - 25.40	RQD = 70%						R2:Bedrock: Grey, banded, META-SANDSTONE, with garnet and pyrite, joints at 5 degrees parallel with banding, micro-faults dipping at 30 to 45 degrees. Changing to greenish yellow, intrusive, SYENITE, with a fine grained, FELDSPAR groundmass in the bottom 2 feet of core. Rock Mass Quality = Fair. R2:Core Times (min:sec) 20.4-21.4 ft (2:35) 21.4-22.4 ft (2:10) 22.4-23.4 ft (2:05) 23.4-24.4 ft (2:10) 24.4-25.4 ft (2:10) 100% Recovery	
								274.30		25.40	
25										Bottom of Exploration at 25.40 feet below ground surface.	
30											
35											
40											
45											
50											

Remarks:

Stratification lines represent approximate boundaries between soil typesl transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-LLR-101

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Ford Bridge #1219 carries Fall Road over Little River
Location: Lebanon, Maine

Boring No.: BB-LLR-102
WIN: 17873.00

Driller:	MaineDOT	Elevation (ft.)	298.5	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	3/22/11; 12:00-14:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	3+93.4, 5.6 ft Lt.	Casing ID/OD:	HW & NW	Water Level*:	11.0 ft bgs.
Hammer Efficiency Factor: 0.84		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 = Insitu Vane Shear Test. PP = Pocket Penetrometer
MV = Unsuccessful Insitu 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
WOP = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = Hammer Efficiency Factor/60%*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
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	298.17		4" Pavement — 0.33	
	1D	24/15	2.00 - 4.00	13/17/11/15	28	39				Brown, moist, dense, Gravelly, fine to coarse SAND, little silt. (Fill) .	G#262372 A-1-b, SW-SM WC=10.7%
5	2D	24/18	5.00 - 7.00	4/6/6/13	12	17		293.50		Brown, moist, medium dense, fine to coarse Sandy GRAVEL, little silt, trace organics (1-2" layer). — 5.00	G#262373 A-1-b, GP-GM WC=7.1%
							Wash			Roller Coned ahead from 9.2-11.0 ft bgs. Cobble from 9.2-9.8 ft bgs. Cobble from 10.1-10.6 ft bgs. — 10.60	
10	3D	24/14	11.00 - 13.00	15/13/11/11	24	34	Ahead	287.90		Grey, wet, dense, fine to coarse SAND, some gravel, some silt.	G#262374 A-2-4, SM WC=11.3%
	4D	24/18	15.00 - 17.00	10/13/17/29	30	42				Grey, wet, dense, fine to coarse SAND, some gravel, little silt. Changed to NW Casing at 15.0 ft bgs.	G#262375 A-1-b, SM WC=10.0%
15											
	5D	12/12	20.00 - 21.00	34/50	---					Grey, wet, very dense, fine to coarse SAND, some silt, little gravel, (Till). Roller Coned ahead to 21.4 ft bgs. — 21.40	G#262344 A-2-4, SM WC=10.2%
	R1	60/60	21.40 - 26.40	RQD = 62%			NQ-2	277.10		Top of Bedrock at Elev. 277.1 ft. R1:Bedrock: Banded, purplish grey, fine grained, META-SANDSTONE, with pyrite and calcite, joints dipping at 60 to 75 degrees, fresh. Rock Mass Quality = Fair. R1:Core Times (min:sec) 21.4-22.4 ft (2:00) 22.4-23.4 ft (2:00) 23.4-24.4 ft (2:00) 24.4-25.4 ft (1:20) 25.4-26.4 ft (1:50) 100% Recovery	
20											
	R2	60/60	26.40 - 31.40	RQD = 23%						R2:Bedrock: Banded, purplish grey, fine grained, META-SANDSTONE, with pyrite and calcite, joints dipping at 60 to 75 degrees, fresh. Rock Mass Quality = Very Poor. R2:Core Times (min:sec) 26.4-27.4 ft (1:20) 27.4-28.4 ft (2:40) 28.4-29.4 ft (2:30) 29.4-30.4 ft (1:20) 30.4-31.4 ft (1:50) 100% Recovery	
25								267.10		31.40	
30										Bottom of Exploration at 31.40 feet below ground surface.	
35											
40											
45											
50											

Remarks:

Stratification lines represent approximate boundaries between soil typesl transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-LLR-102

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1787(300)X

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	----------	------
DESIGN-DETAILED	T.WHITE	MAR 2011
CHECKED-REVIEWED	K.MAGUIRE	-----
DESIGN2-DETAILED2	----------	------
DESIGN3-DETAILED3	----------	------
REVISIONS 1	----------	------
REVISIONS 2	----------	------
REVISIONS 3	----------	------
REVISIONS 4	----------	------
FIELD CHANGES	----------	------

SIGNATURE

P.E. NUMBER

DATE

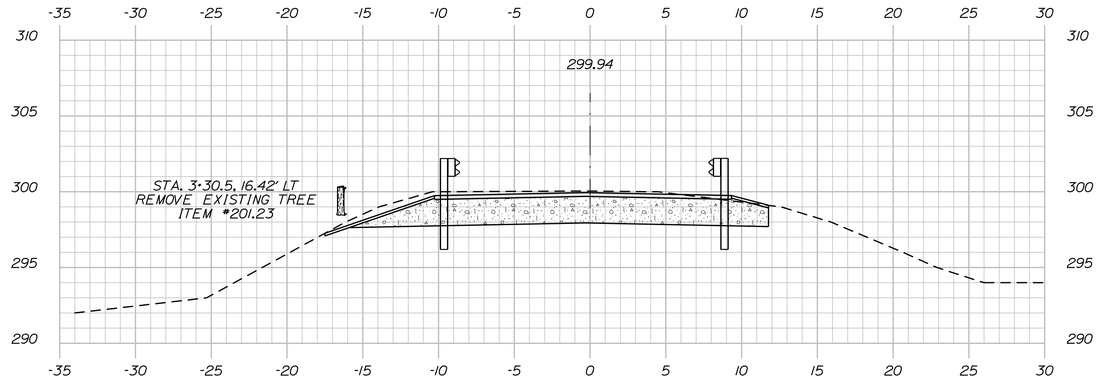
FORD BRIDGE
LITTLE RIVER
LEBANON YORK COUNTY

BORING LOGS

SHEET NUMBER

5

OF 17



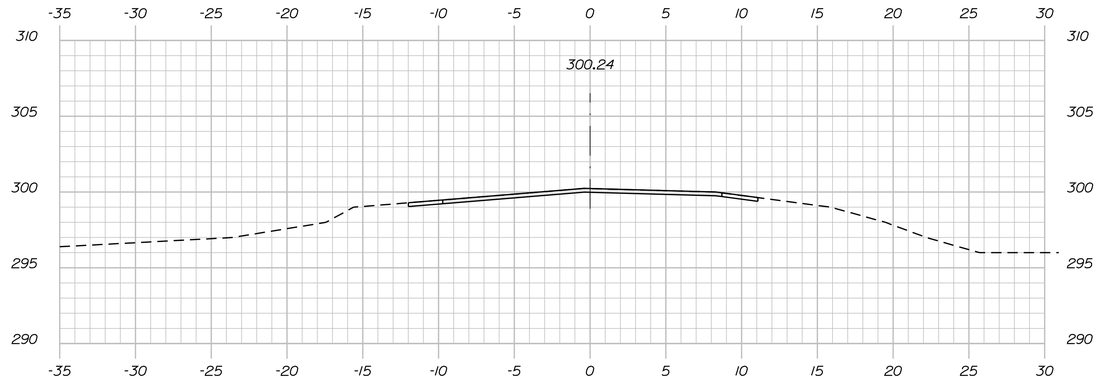
STA. 3+28.0±, 8.85' LT. TO STA 3+40.5±, 8.65' LT
INSTALL 12.5 LF GUARDRAIL TYPE 3C SINGLE RAIL
ITEM #606.23

STA. 3+40.5±, 8.65' LT. TO STA 4+03±, 8.56' LT
INSTALL 62.5 LF GUARDRAIL TYPE 3 SINGLE RAIL
BRIDGE MOUNTED. ITEM #606.74

3+25

STA. 3+22.3±, 7.53' RT. TO STA 3+34.8±, 7.53' RT
INSTALL 12.5 LF GUARDRAIL TYPE 3C SINGLE RAIL
ITEM #606.23

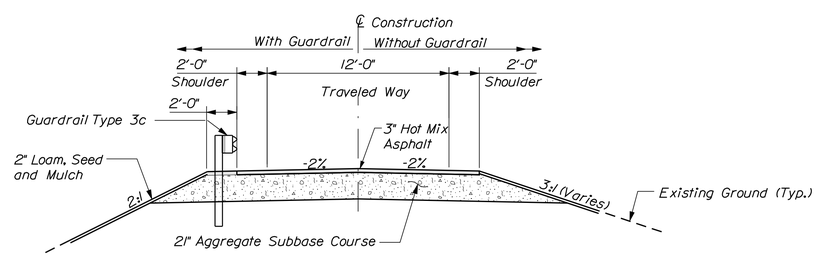
STA. 3+34.8±, 7.53' RT. TO STA 3+97.0±, 7.91' RT
INSTALL 62.5 LF GUARDRAIL TYPE 3 SINGLE RAIL
BRIDGE MOUNTED. ITEM #606.74



STA. 3+16.2±, 12.3' LT. TO STA 3+28.0±, 8.85' LT
INSTALL 12.5 LF GR TYPE 3C - OVER 15 FT RADIUS.
ITEM #606.232

3+00
MATCH EXISTING ROADWAY
BEGIN 25' TRANSITION

STA. 3+10.5±, 11.1' RT. TO STA 3+22.3±, 7.53' RT
INSTALL 12.5 LF GR TYPE 3C - OVER 15 FT RADIUS
ITEM #606.232



TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1787(300)X

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

PROJ. MANAGER	L. TIMBERLAKE	BY	
DESIGN-DETAILED	OGK	OGK	NOV 2011
CHECKED-REVIEWED	GNM	JJH	DEC 2011
DESIGN2-DETAILED2	-------	-------	-------
DESIGN3-DETAILED3	-------	-------	-------
REVISIONS 1	-------	-------	-------
REVISIONS 2	-------	-------	-------
REVISIONS 3	-------	-------	-------
REVISIONS 4	-------	-------	-------
FIELD CHANGES	-------	-------	-------

SIGNATURE

9099

P.E. NUMBER

11/2011

DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

CROSS SECTIONS

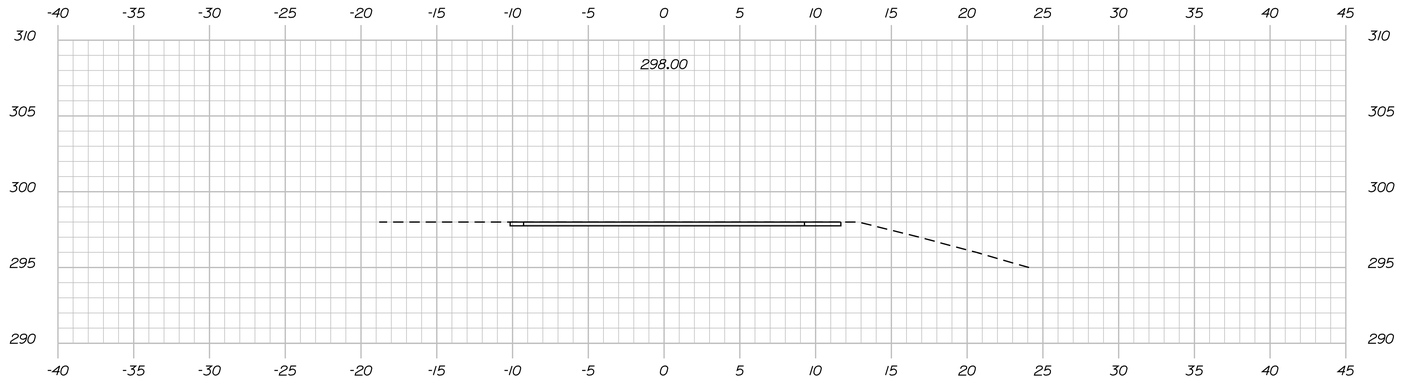
SHEET NUMBER

6

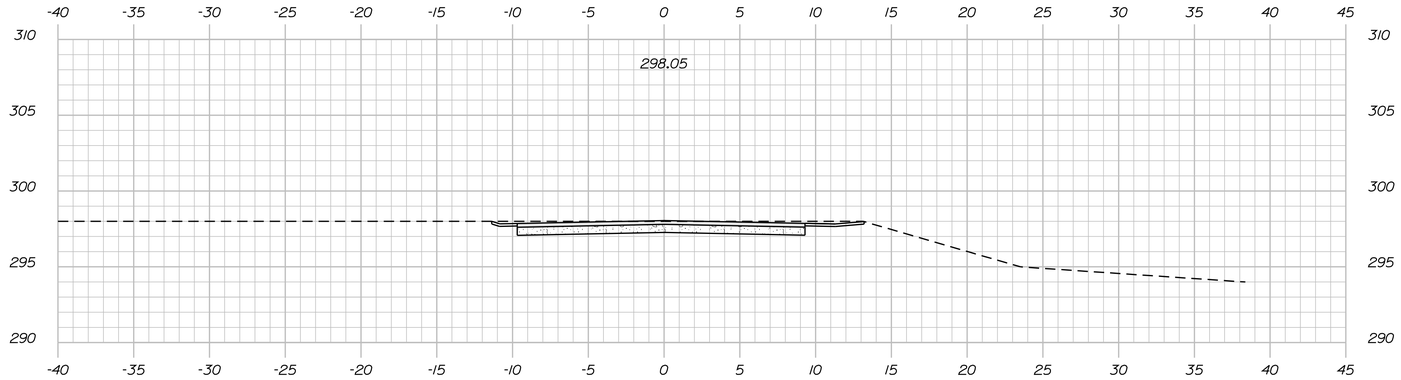
OF 17

Sta. 3+00 to Sta. 3+25

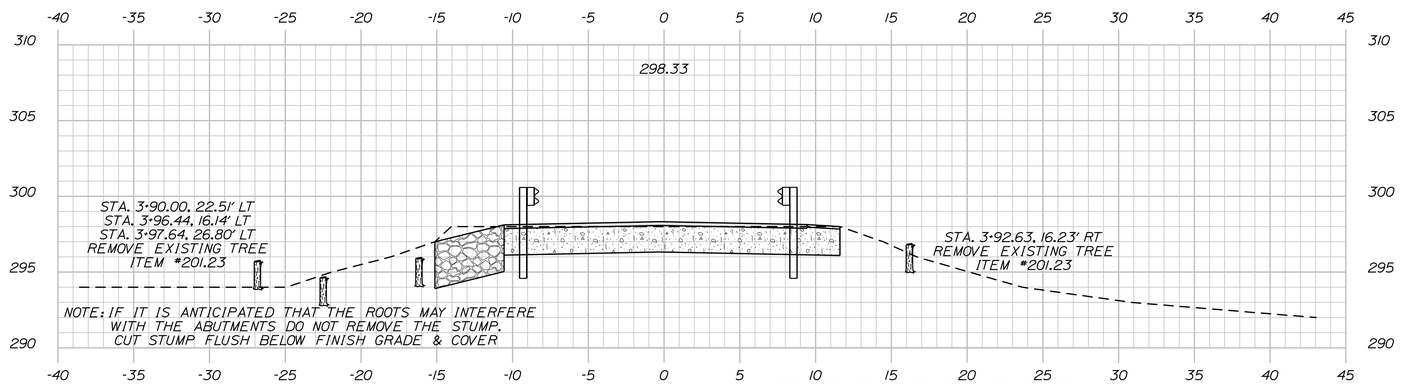
Filename: ...\msta\006_XSECT_3+00_001.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012



4+33
MATCH EXISTING ROADWAY
END 25' TRANSITION



4+25



STA. 4+03±, 8.56' LT. TO STA 4+15±, 11.6' LT
INSTALL 12.5 LF GR TYPE 3C - OVER 15 FT RADIUS.
ITEM #606.232

4+00

STA. 3+97±, 7.91' RT. TO STA 4+09±, 8.61' RT
INSTALL 12.5 LF GR TYPE 3C. ITEM #606.23
STA. 4+09±, 8.61' RT. TO STA 4+20.8±, 12.12' RT
INSTALL 12.5 LF GR TYPE 3C - OVER 15 FT RADIUS. ITEM #606.232

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1787(300)X

WIN 17873.00

BRIDGE NO. 1219 BRIDGE PLANS

PROJ. MANAGER	L. TIMBERLAKE		
DESIGN-DETAILED	OGK	NOV 2011	SIGNATURE
CHECKED-REVIEWED	GNM	DEC 2011	9099
DESIGN2-DETAILED2	------	------	P.E. NUMBER
DESIGN3-DETAILED3	------	------	11/2011
REVISIONS 1	------	------	DATE
REVISIONS 2	------	------	
REVISIONS 3	------	------	
REVISIONS 4	------	------	
FIELD CHANGES	------	------	

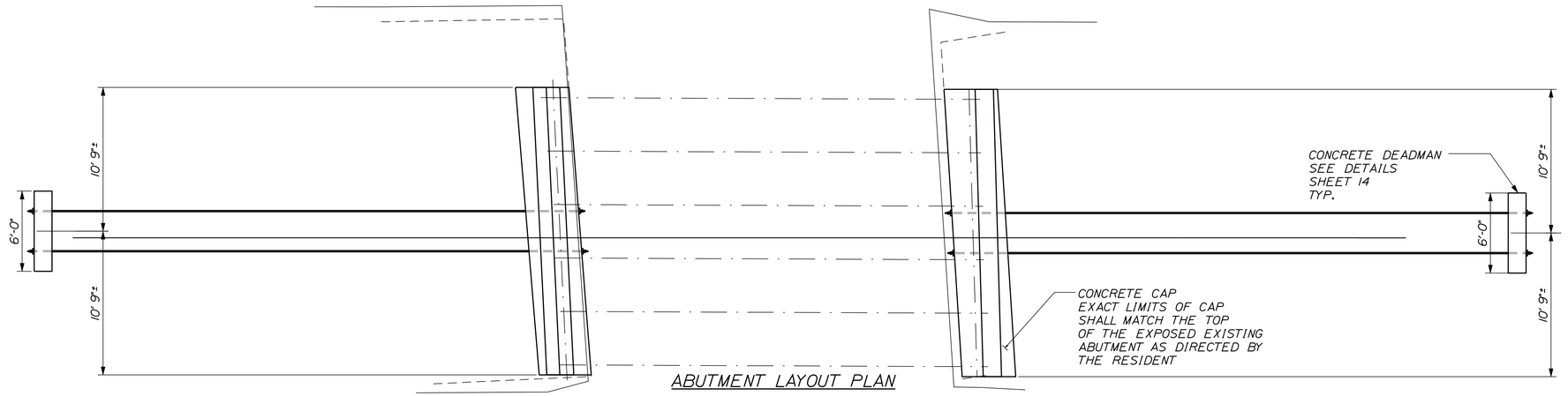
FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

CROSS SECTIONS

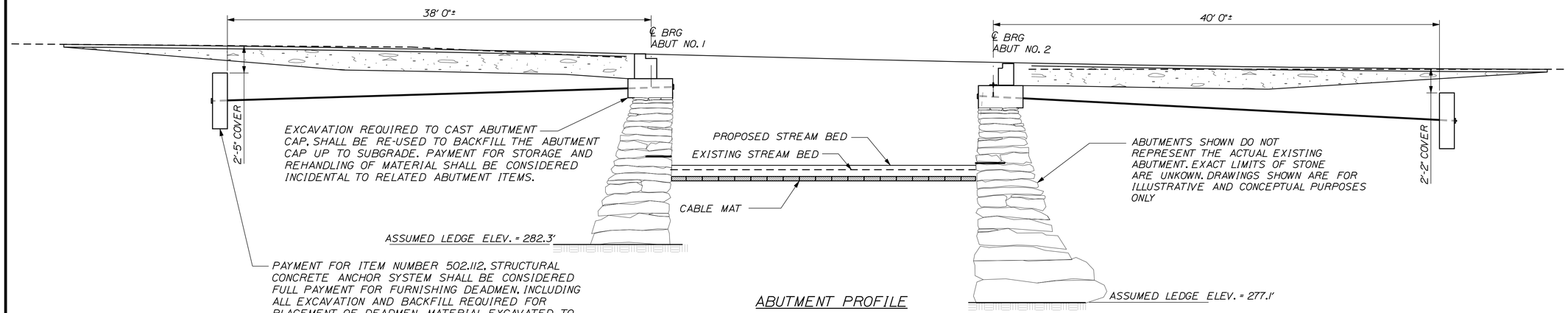
SHEET NUMBER
7
OF 17

Filename: ...\mslo\007_XSECT_4+00_002.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012

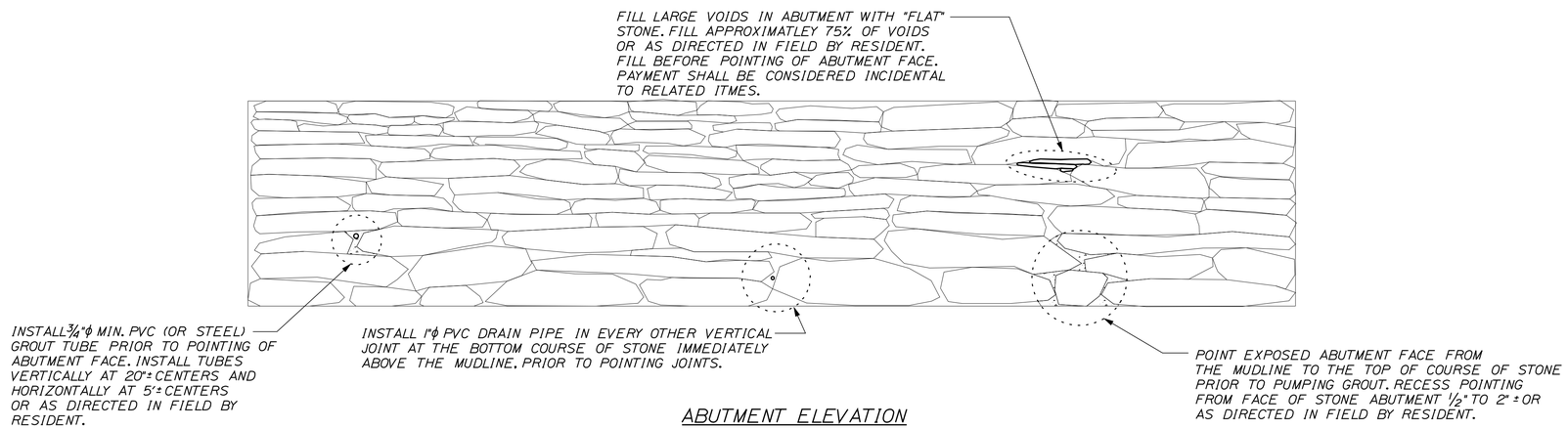
Sta. 4+00 to Sta. 4+33



ABUTMENT LAYOUT PLAN



ABUTMENT PROFILE



ABUTMENT ELEVATION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

	B. CONDEN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	OGK	OGK	NOV 2011
CHECKED-REVIEWED	QNM	JJH	DEC 2011
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

9099

P.E. NUMBER

11/2011

DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

ABUTMENT REHABILITATION

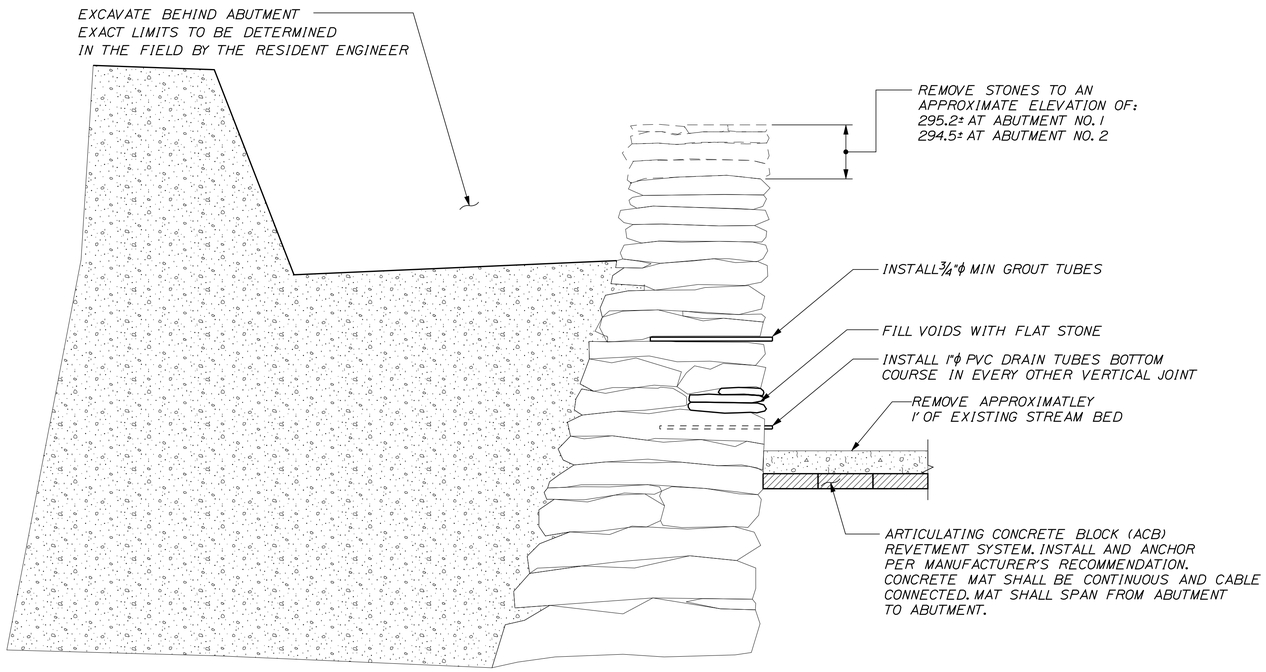
SHEET NUMBER

8

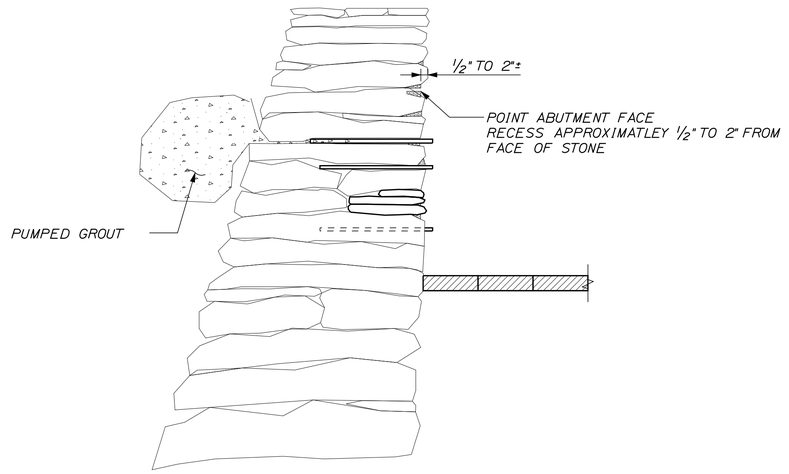
OF 17

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

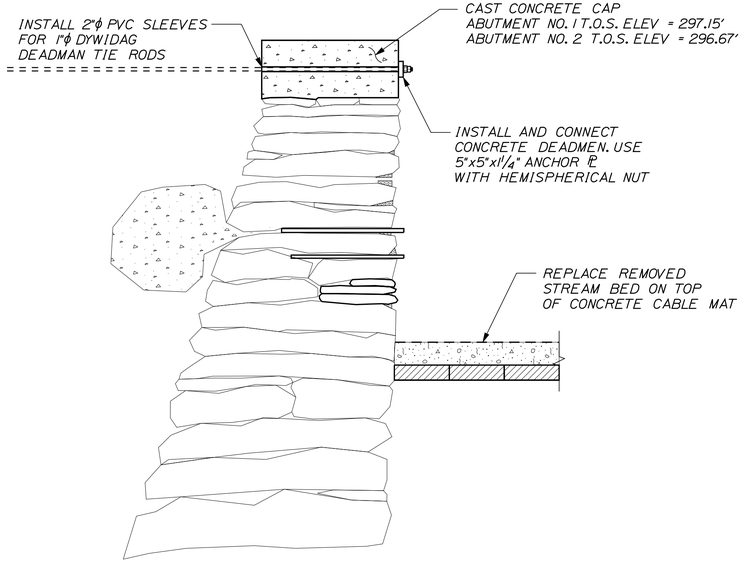
Filename: ...\bridge\rmsta\008_Abutments.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012



REHAB STAGE 1



REHAB STAGE 2



REHAB STAGE 3

ABUTMENT REHAB SEQUENCE AND PROCEDURE

1. EXCAVATE BEHIND EXISTING ABUTMENTS APPROXIMATELY 6" BELOW THE DEPTH OF THE SUPERSTRUCTURE

2. REMOVE THE SUPERSTRUCTURE.

3. INSTALL BOOM SUPPORTED FLOATING SILT FENCE DOWNSTREAM. REMOVE 1 FOOT OF STREAM BED MATERIAL. STORE ON SITE IN A MANNER TO PREVENT THE LOSS OF ANY STREAM BED MATERIAL.

4. INSTALL CONCRETE CABLE MAT. GROUT ACB MATT TO ABUTMENT FACE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

5. INSTALL COFFERDAMS AS REQUIRED AROUND EACH ABUTMENT ALLOWING FLOW DOWN THE CENTER OF THE CHANNEL - NOTE EEL PASSAGE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION.

6. REMOVE TOP LAYER OF STONES DOWN TO MAXIMUM ELEVATION OF 295.2± AT ABUTMENT NUMBER 1 AND A MAXIMUM ELEVATION OF 294.5± AT ABUTMENT #2 ENSURE THE COURSE OF STONE IMMEDIATELY BELOW REMOVAL LIMITS IS STABLE. REMOVE ANY SMALL STONES IN THAT REGION AT THE DIRECTION OF THE RESIDENT ENGINEER.

7. CLEAN OUT ALL JOINTS REMOVING ALL LOOSE DEBRIS AND THEN FLUSH WITH AIR AND WATER.

8. INSTALL GROUT TUBES AND WEEPER DRAIN PIPES.

9. FILL LARGE VOIDS IN ABUTMENT FACE. (ANY OPENING GREATER THAN 6" IN BOTH DIRECTIONS SHOULD BE CHINKED WITH STONE SIMILAR IN APPEARANCE TO THE ABUTMENT FACING STONES) STONES SHALL NOT HAVE ROUNDED EDGES. BUT SHALL BE APPROXIMATELY FLAT AND HAVE SUFFICIENT SURFACE AREA TO BOND TO POINTING AND GROUT.

10. POINT EXPOSED ABUTMENT FACE FROM THE MUDLINE UP TO THE TOP OF STONES WITH SHOTCRETE/GUNITE. OR WITH A CONTRACTOR PROPOSED ALTERNATE METHOD THAT HAS BEEN ACCEPTED BY MAINEDOT PER THE SPECIAL PROVISION. PAYMENT OF ITEM NUMBER 517.61 SHOTCRETE WILL BE CONSIDERED REIMBURSEMENT FOR ANY ACCEPTED CONTRACTOR PROPOSED ALTERNATIVE POINTING METHOD. RECESS FROM FACE OF STONES APPROXIMATELY ½" OR AS DIRECTED BY RESIDENT IN FIELD. A 4' x 4' TEST SECTION OF SHOTCRETE OR ALTERNATE POINTING METHOD WILL BE REQUIRED AS PART OF THE POINTING PAY ITEM. IMMEDIATELY CLEAN ABUTMENT STONE FACES OF ANY EXCESS SHOTCRETE OR OVERSPRAY. THE SHOTCRETE TO REMAIN SHOULD BE LOCATED ENTIRELY WITHIN THE JOINTS OF THE WALL FACE. SMALL AREAS THAT ARE UNABLE TO BE SHOTCRETED MAY BE POINTED BY HAND USING THE SAME MATERIALS AS THE LARGER JOINTS.

11. INSTALL PUMPED SILICA SAND, CEMENT & WATER GROUT. STARTING FROM THE BOTTOM TUBES. WORKING UPWARDS AS THE GROUT LEVEL REACHES THE NEXT SET OF GROUT PORTS. MONITOR STONES FOR MOVEMENT THROUGHOUT THE PUMPING PROCESS. IF ANY MOVEMENT IS DISCERNED STOP ALL PUMPING ACTIVITY IMMEDIATELY. UNTIL SUFFICIENT SET OF THE GROUT ALLOWS FOR CONTINUATION OF THE GROUTING. THE GROUT SHALL BE APPROXIMATELY 2 PARTS CEMENT AND 1 PART SILICA SAND. OR AS APPROVED BY THE DEPARTMENT.

12. REMOVE COFFERDAM

13. REPLACE STREAM BED MATERIAL ON TOP OF CABLE MAT. TO THE APPROXIMATE PRE-EXCAVATED LINES AND GRADES OF THE STREAM BED. ANY EXCESS STREAM BED MATERIAL NOT USED ON TOP OF THE CABLE MAT SHALL BE WASTED ON SITE. BLENDED WITH STRUCTURAL EXCAVATION AND USED BEHIND THE ABUTMENTS. OR BLENDED TO CONFORM WITH APPROPRIATE AGGREGATE SUBBASE GRAVEL SPECIFICATIONS AND USED UNDER THE PAVEMENT.

14. CAST TOP CONCRETE SLAB WITH PVC SLEEVES FOR DEADMAN ANCHORAGE.

15. INSTALL CONCRETE DEADMEN AND BACKFILL AS REQUIRED.

16. RESET SUPERSTRUCTURE.

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

PROJ. MANAGER	B. CONDEN	BY	DATE
DESIGN-DETAILED	OGK	OGK	NOV 2011
CHECKED-REVIEWED	GNM	JJH	DEC 2011
DESIGN2-DETAILED2	-------	-------	-------
DESIGN3-DETAILED3	-------	-------	-------
REVISIONS 1	-------	-------	-------
REVISIONS 2	-------	-------	-------
REVISIONS 3	-------	-------	-------
REVISIONS 4	-------	-------	-------
FIELD CHANGES	-------	-------	-------

SIGNATURE

9099

P.E. NUMBER

11/2011

DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

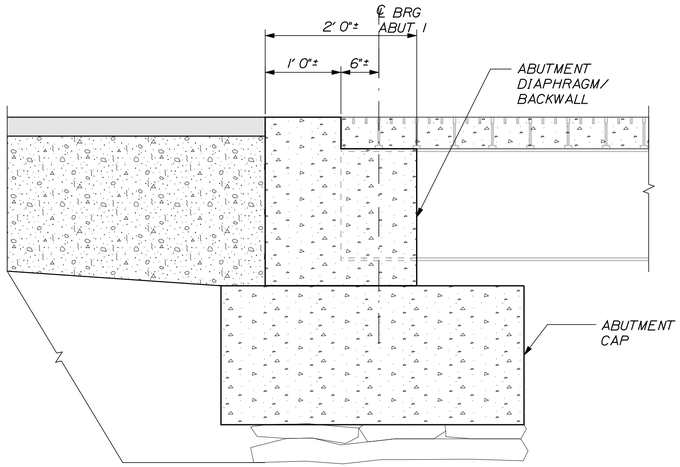
ABUTMENT REHABILITATION

SHEET NUMBER

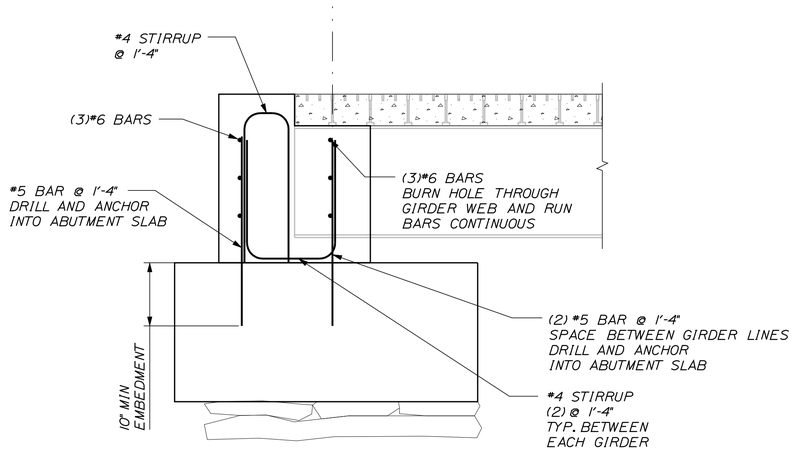
9

OF 17

Filename: ...\bridge\msta\009_Abutments.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012

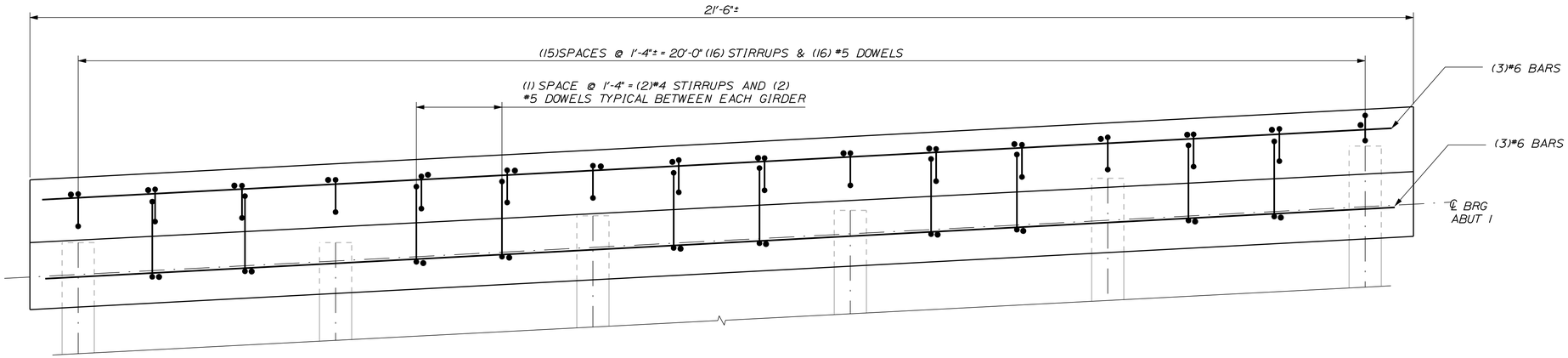


ABUTMENT NO. I SECTION



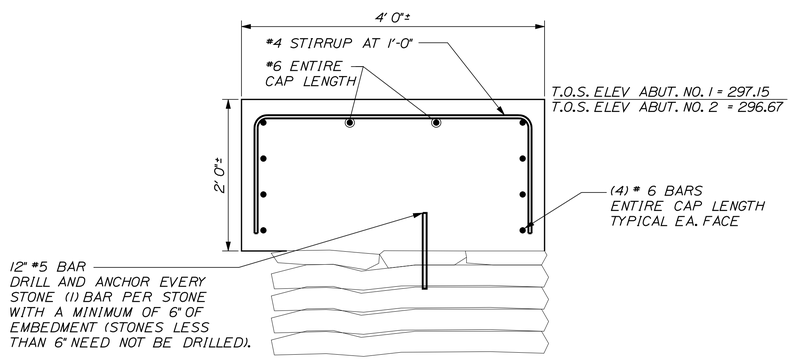
ABUTMENT NO. I BACKWALL REINFORCEMENT SECTION

ABUTMENT CAP REINFORCEMENT NOT SHOWN FOR CLARITY



ABUTMENT I BACKWALL REINFORCEMENT PLAN

ABUTMENT CAP REINFORCEMENT NOT SHOWN FOR CLARITY



ABUTMENT CAP SECTION

ABUTMENT NOTES

1. ALL STEEL SHALL BE GR. 36KSI U.N.O.
2. ALL ANCHOR BOLTS SHALL BE F1554 GR. 36KSI.
3. ALL ANCHOR RODS AND FASTENERS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.
4. ABUTMENT NO. I SHALL BE TEMPORARILY BLOCKED UNTIL THE CAST IN PLACE CONCRETE DIAPHRAGM HAS CURED.
5. NEOPRENE PADS SHALL BE POLYCHLOROPRENE OR NATURAL POLYISOPRENE OF 60 ±5 SHORE A DUROMETER HARDNESS. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS.
6. EXACT LIMITS OF THE ABUTMENT CAP SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD AFTER THE REMOVAL OF THE TOP LAYER OF THE EXISTING ABUTMENT. IT IS ANTICIPATED THAT THE ACTUAL LIMITS OF CONCRETE WILL VARY FROM THOSE SHOWN. CONCRETE CAP SHALL MATCH THE TOP OF THE EXPOSED BRIDGE ABUTMENTS. PAYMENT CONSIDERED INCIDENTAL TO CONTRACT ITEMS.
7. DRILLED AND ANCHORED #5 BARS MAY BE CAST IN THE CAP AT THE CONTRACTOR'S OPTION.
8. REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER OF 2" UNLESS OTHERWISE NOTED.
9. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE TOP OF THE ABUTMENT BACKWALLS AND TO 1' BELOW THE TOP OF THE BACKWALLS ON THE BACKSIDE AND TO THE CONCRETE CURBS.

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	OGK	NOV 2011
CHECKED-REVIEWED	JJH	DEC 2011
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

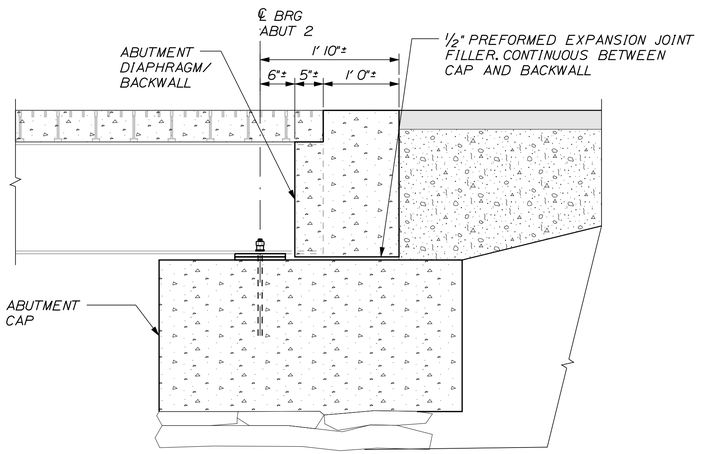
B. CONDEN: OGK, QNM

SIGNATURE
9099
P.E. NUMBER
11/2011
DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

ABUTMENT NO. 1

SHEET NUMBER
10
OF 17



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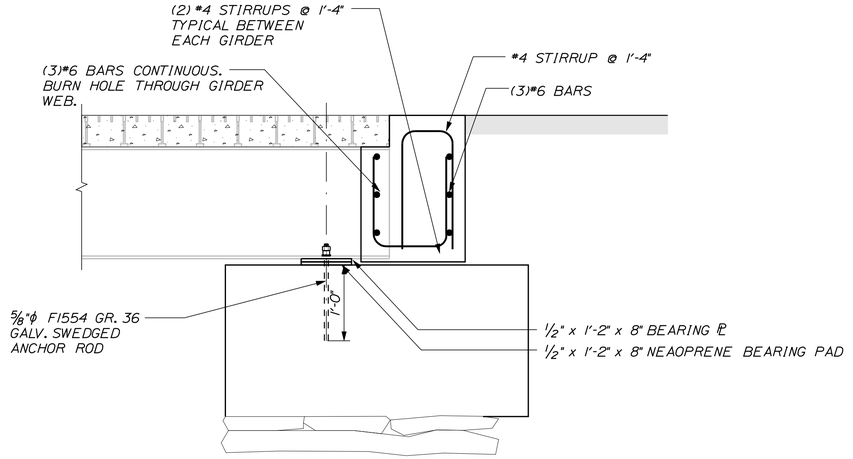
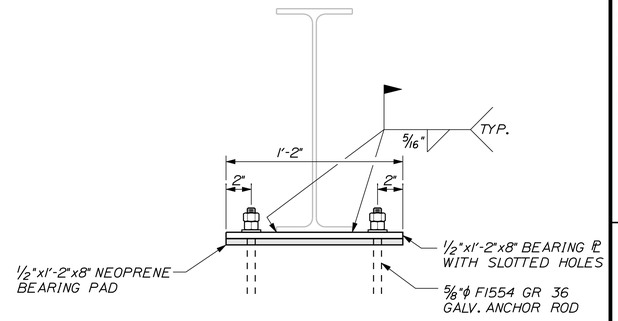


ABUTMENT NO. 2 BACKWALL REINFORCEMENT SECTION

ABUTMENT CAP REINFORCEMENT NOT SHOWN FOR CLARITY
FOR ABUTMENT CAP REINFORCEMENT SEE SHEET 10



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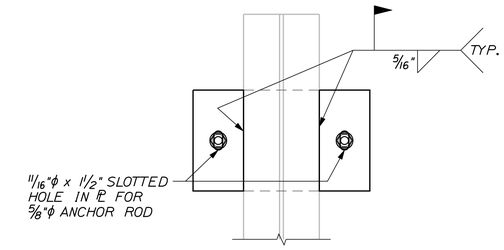

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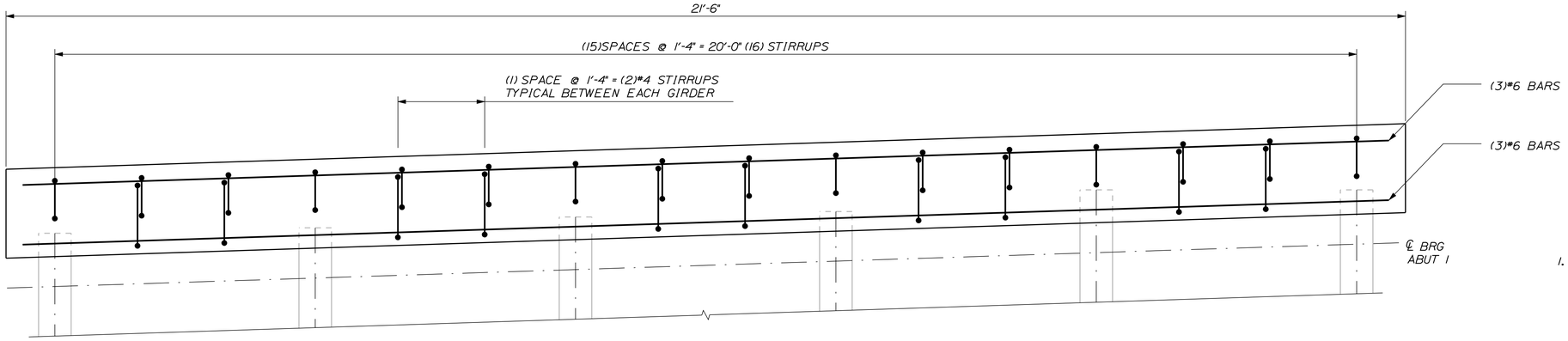


ABUTMENT 2 BACKWALL REINFORCEMENT PLAN

ABUTMENT CAP REINFORCEMENT NOT SHOWN FOR CLARITY

ABUTMENT NOTES

1. SEE SHEET NO. 10

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

PROJ. MANAGER	B. CONDEN		
DESIGN-DETAILED	OGK	NOV 2011	SIGNATURE
CHECKED-REVIEWED	ONM	DEC 2011	
DESIGN2-DETAILED2	----------	----------	9099
DESIGN3-DETAILED3	----------	----------	P.E. NUMBER
REVISIONS 1	----------	----------	----------
REVISIONS 2	----------	----------	11/2011
REVISIONS 3	----------	----------	----------
REVISIONS 4	----------	----------	DATE
FIELD CHANGES	----------	----------	----------

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

ABUTMENT NO. 2

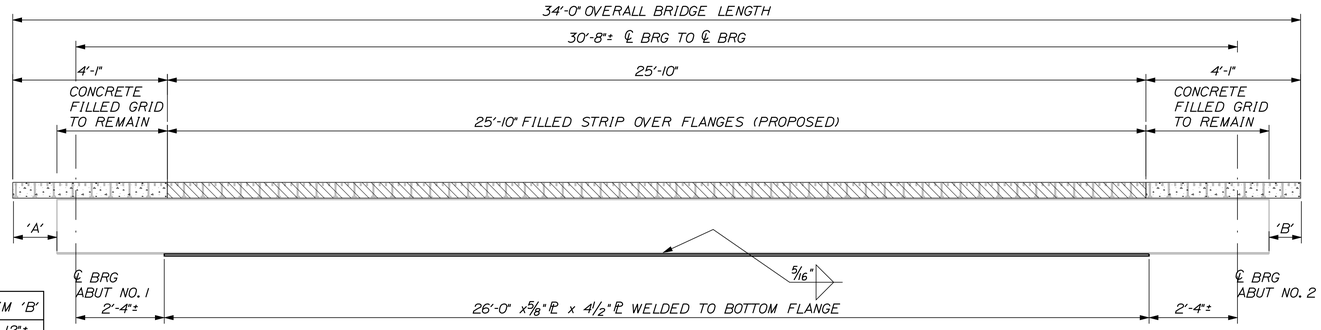
SHEET NUMBER

11

OF 17

CALDERWOOD ENGINEERING
22 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2067 FAX (207) 737-2008

Filename: ...\bridge\rmsto\011_Abutment_2.dgn Division: BRIDGE Username: Coy.Williams Date:1/11/2012



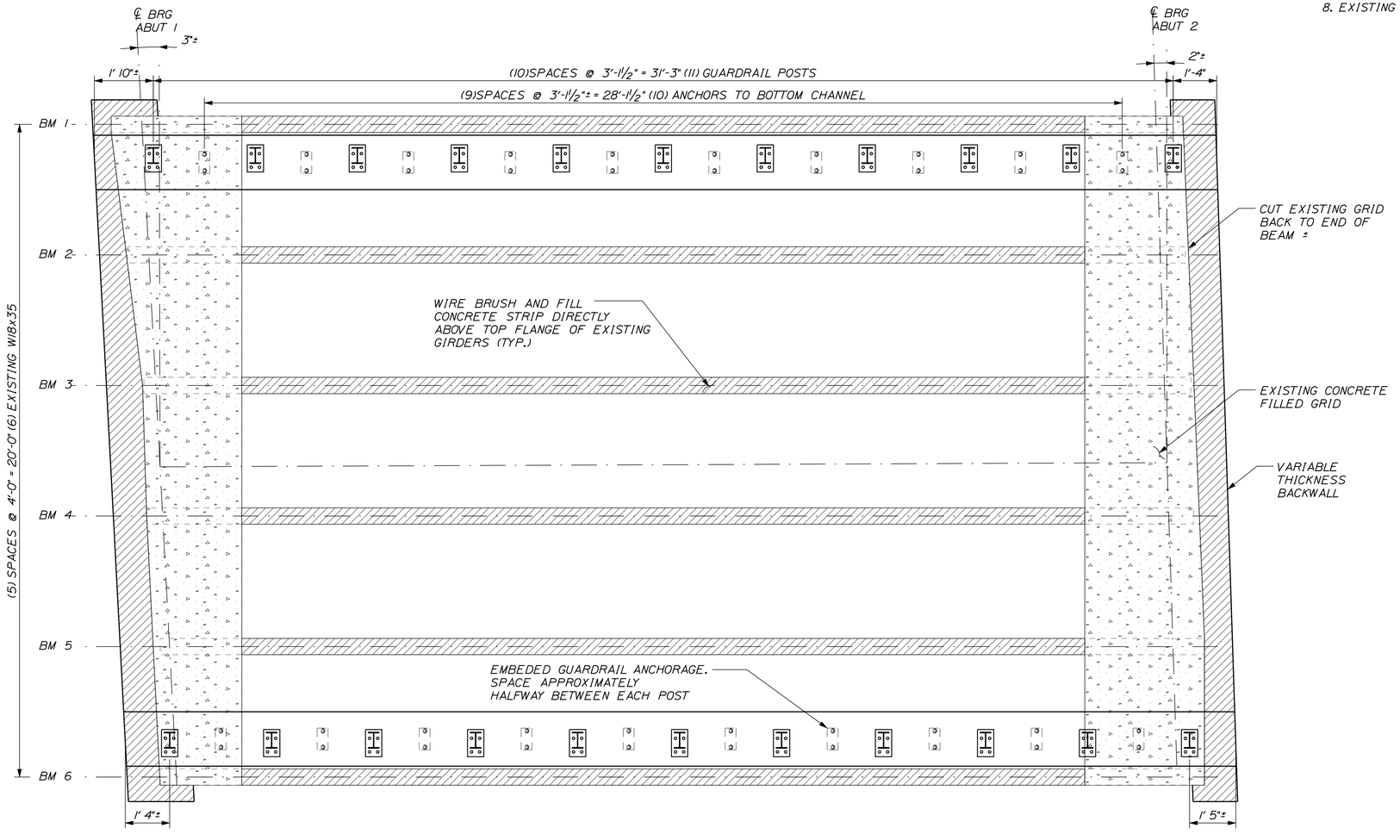
TYPICAL GIRDER ELEVATION

BEAM	DIM 'A'	DIM 'B'
1	0"±	12"±
2	6"±	11"±
3	12"	9"
4	13"±	8"±
5	20"±	4"±
6	20"±	4"±

DIMENSIONS 'A' & 'B' REPRESENT AREAS OF THE FILLED DECK TO BE REMOVED

SUPERSTRUCTURE NOTES

1. SUPERSTRUCTURE TO BE REMOVED DURING REPAIR AND TO ALLOW ABUTMENT REPAIR TO TAKE PLACE. CURB AND CONCRETE STRIP SHALL BE PLACED/CAST AFTER THE BRIDGE REPLACEMENT. ALL STEEL PLATE REPAIR AND PAINTING SHALL BE COMPLETED PRIOR TO PLACEMENT OF CONCRETE.
2. CONCRETE STRIP SHALL HAVE A COMPRESSIVE STRENGTH OF 4350 PSI. CONCRETE CURB SHALL HAVE A COMPRESSIVE STRENGTH OF 5075 PSI.
3. THE EXISTING GRID OVERHANGS THE BEAMS AT VARIABLE LENGTHS. CONTRACTOR SHALL REMOVE EXCESS GRID PAST THE GIRDERS. ALL EXPOSED ENDS OF THE GRID NOT CUT ALONG A BAR SHALL BE GROUND DOWN TO A SMOOTH END AND BENT DOWN AS DIRECTED BY THE RESIDENT. REMOVAL OF GRID SHALL ALLOW FOR AN A APPROXIMATE 10"MIN - 12" BACKWALL WITH A CONTINUOUS SKEW. ANY OPENED END OF GRID DUE TO CUTTING SHALL HAVE EXISTING CONCRETE REMOVED.
4. THE EXISTING DECK ABOVE TOP FLANGE AND THE EXISTING STEEL GIRDERS SHALL BE CLEANED AND PAINTED PER SPECIFICATIONS.
5. THE METAL GRID SHALL BE WIRE BRUSHED CLEANED OF ALL RUST USING A POWER TOOL MOUNTED WIRE BRUSH OR PROCEDURE APPROVED BY THE DEPARTMENT.
6. THE EXISTING BRIDGE RAIL IS A WOODEN RAIL WITH STEEL POSTS. THE STEEL POSTS ARE WELDED TO A STEEL BEAM CURB THAT IS WELDED TO THE GRID DECK. THE EXISTING RAIL SHALL BE REMOVED WITHOUT DAMAGING THE EXISTING STRUCTURE TO BE SALVAGED. PAYMENT FOR THE REMOVAL OF THE RAIL SHALL BE CONSIDERED INCIDENTAL TO RELATED ITEMS.
7. MATERIALS REMOVED FROM THE SUPERSTRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
8. EXISTING 1"x 16"x16" BEARING PLATES TO BE REMOVED



BRIDGE PLAN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

	B. CONDEN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	OGK	OGK	NOV 2011
CHECKED-REVIEWED	QNM	JJH	DEC 2011
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

9099

P.E. NUMBER

11/2011

DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

SUPERSTRUCTURE

SHEET NUMBER

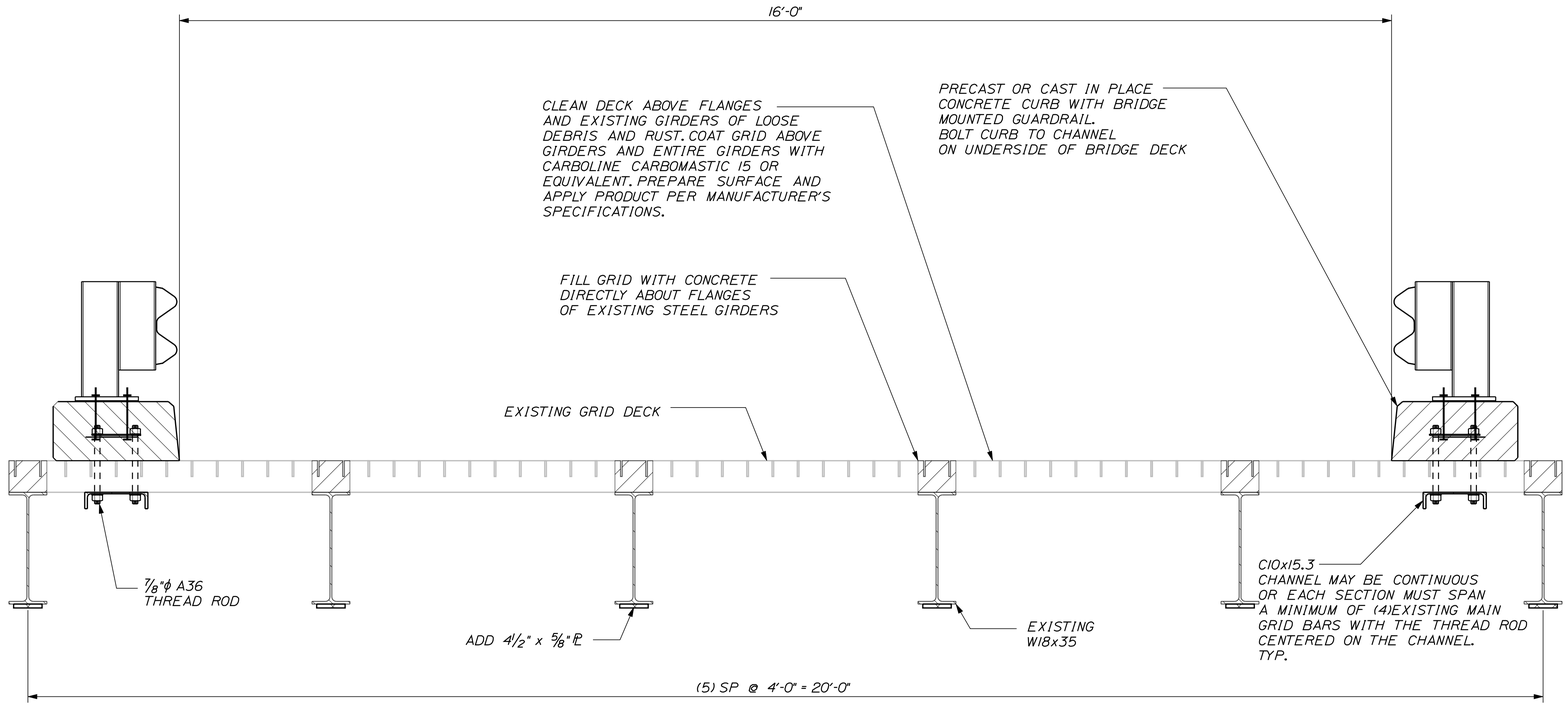
12

OF 17

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

SUPERSTRUCTURE NOTES

1. SEE SHEET 12



TYPICAL SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219 BRIDGE PLANS

	B. CONDEN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	OGK	OGK	NOV 2011
CHECKED-REVIEWED	ONM	JJH	DEC 2011
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

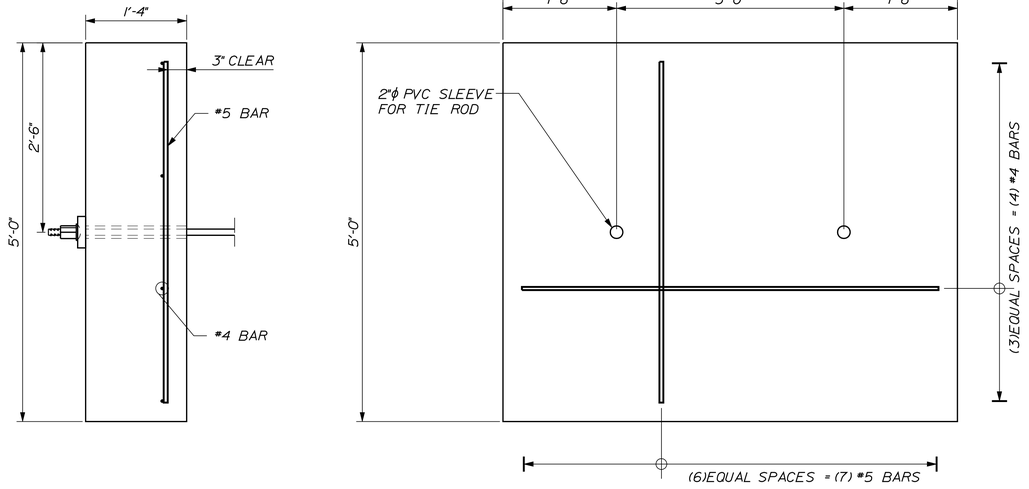
SIGNATURE
9099
P.E. NUMBER
11/2011
DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

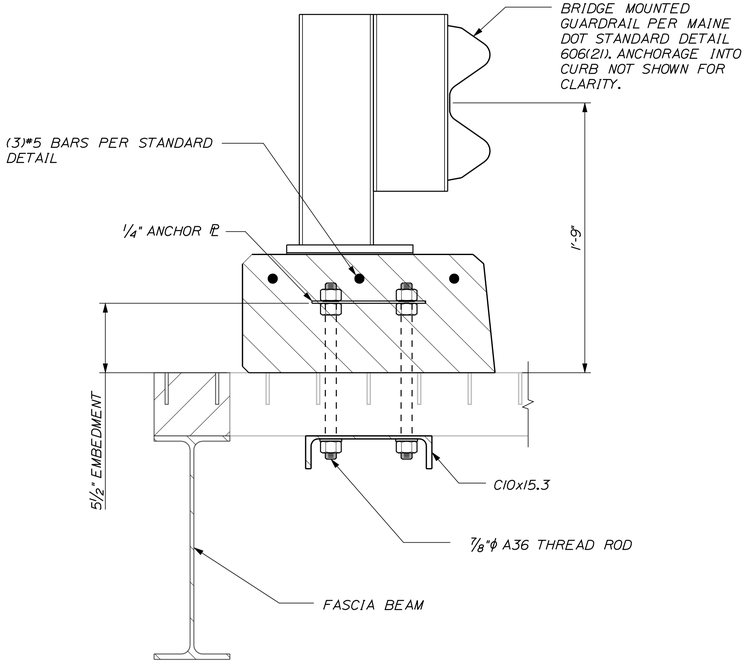
SUPERSTRUCTURE

SHEET NUMBER
13
OF 17

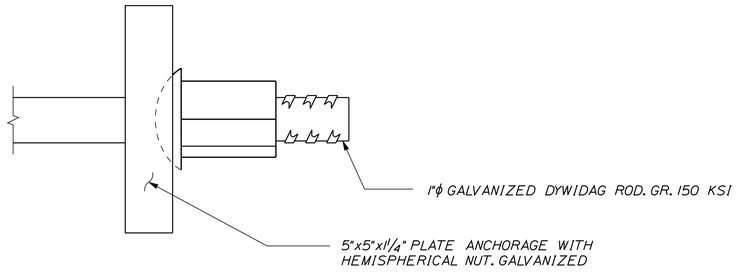
CALDERWOOD ENGINEERING
22 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2907 FAX (207) 737-2008



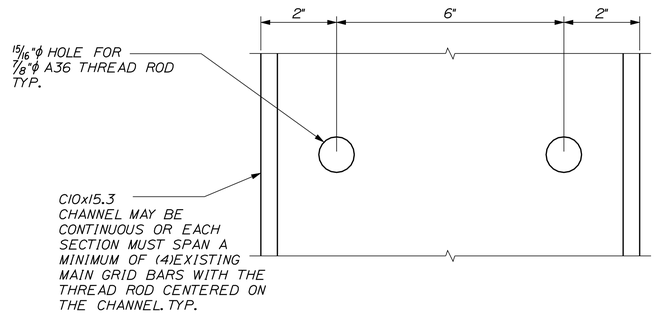
DEADMAN PLAN AND SECTION



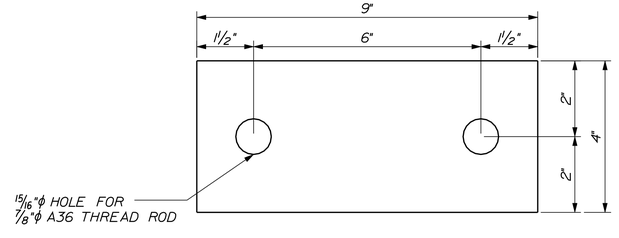
BRIDGE RAIL



TIE ROD ANCHOR DETAIL



CHANNEL DETAIL



1/4" ANCHOR PL DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

PROJ. MANAGER	B. CONDEN		
DESIGN-DETAILED	OCK	NOV 2011	
CHECKED-REVIEWED	GNM	DEC 2011	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

9099

P.E. NUMBER

11/2011

DATE

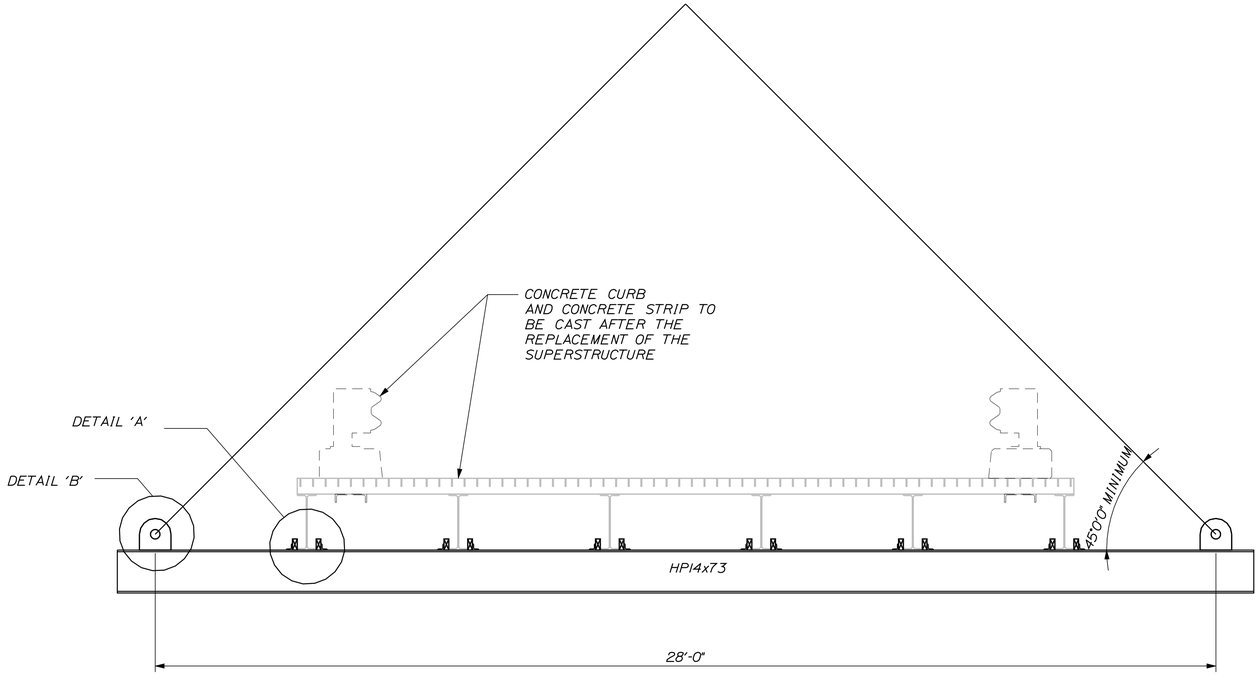
FORD BRIDGE
OVER LITTLE RIVER
LEBANON YORK COUNTY

MISCELLANEOUS DETAILS

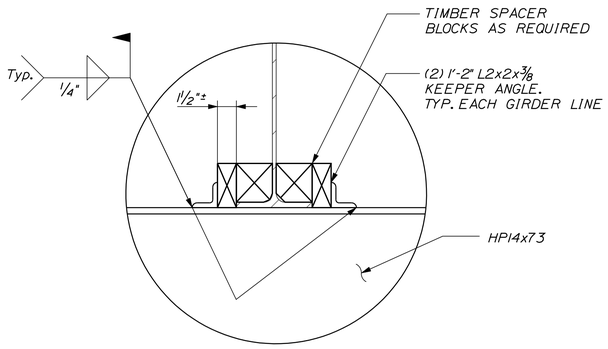
SHEET NUMBER

14

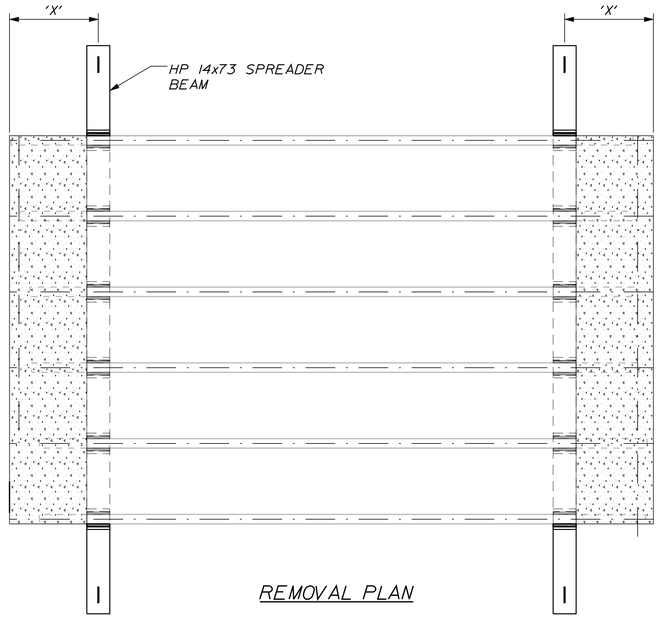
OF 17



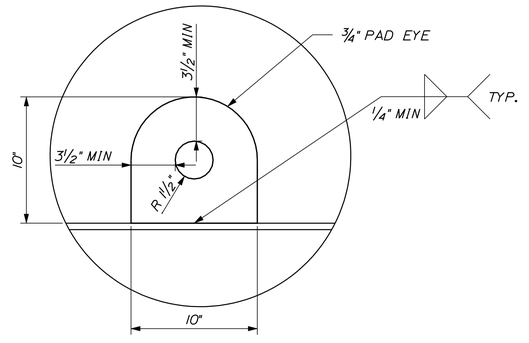
LIFTING SECTION



DETAIL A



REMOVAL PLAN



DETAIL 'B'

PIER NOTES

1. CONTRACTOR TO VERIFY THAT THE BRIDGE IS SECURED LONGITUDINALLY AT ALL TIMES DURING THE PICKING PROCESS.
2. CONTRACTOR MAY PROPOSE AN ALTERNATE LIFTING PROCEDURE FOR CONSIDERATION BY THE DEPARTMENT.
3. ALL MATERIALS SHALL BE NEW OR USED AND IN GOOD CONDITION. USED MATERIALS IN GOOD CONDITION WILL BE CONSIDERED ON A CASE BY CASE BASIS.
4. ESTIMATED WEIGHT OF SUPERSTRUCTURE IS 40,000 LBS.

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2001 FAX (207) 737-2008

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219

BRIDGE PLANS

PROJ. MANAGER	B. CONDEN
DESIGN-DETAILED	OCK
CHECKED-REVIEWED	QNM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	OCK	NOV 2011
REVISIONS 2	JJH	DEC 2011
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
9099
P.E. NUMBER
11/2011
DATE

FORD BRIDGE
OVER LITTLE RIVER
YORK COUNTY
LEBANON

LIFTING PLAN

SHEET NUMBER
15
OF 17

1 — ROAD CLOSED 500 FT. — 48" x 48"

2 — ROAD CLOSED 1000 FT. — 48" x 48"

3 — ROAD CLOSED AHEAD — 48" x 48"

4 — FALL/PHILBRICK RD / DETOUR → — 48" x 12" / 30" x 24"

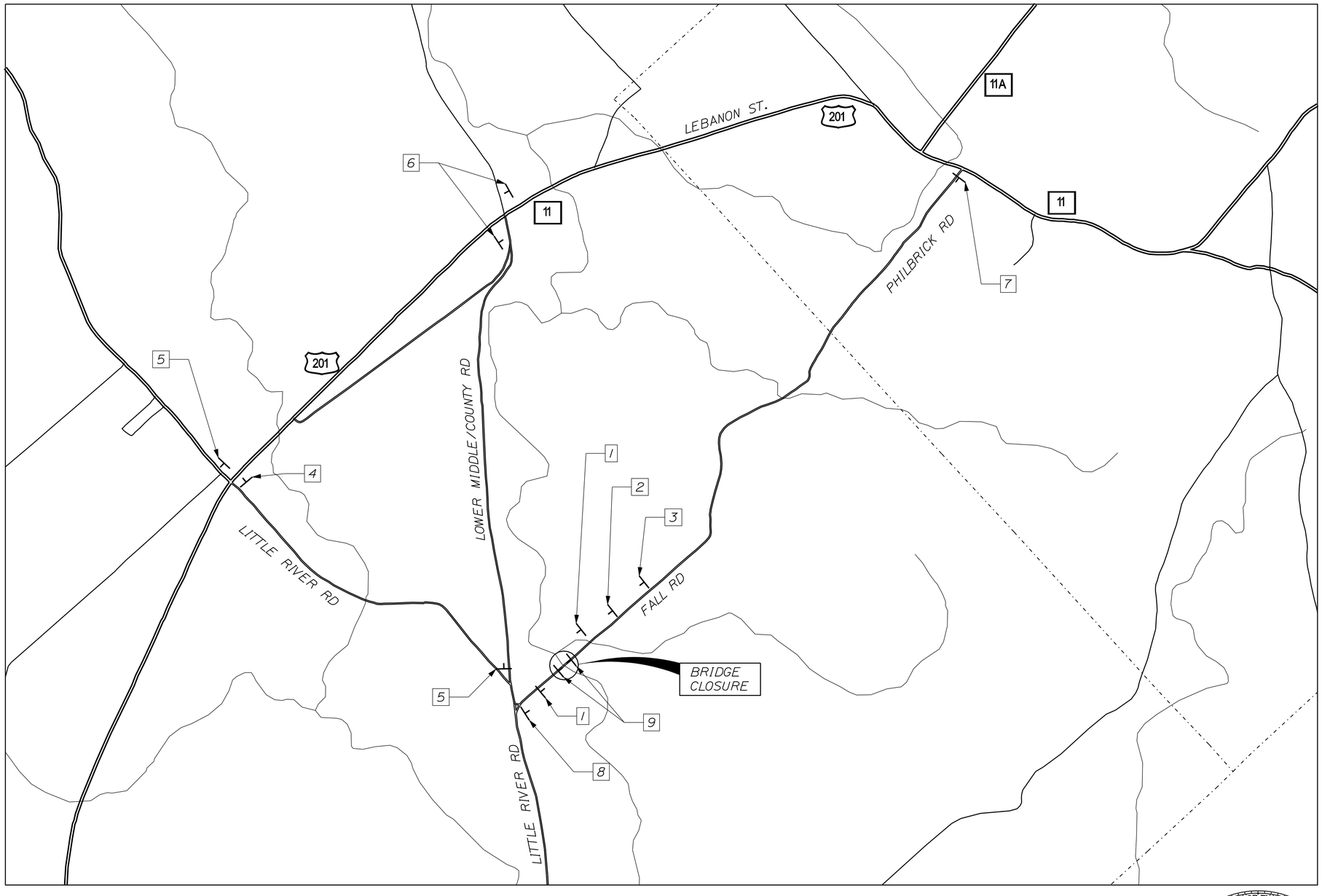
5 — FALL/PHILBRICK RD / DETOUR ← — 48" x 12" / 30" x 24"

6 — FALL/PHILBRICK RD / DETOUR ↑ — 48" x 12" / 30" x 24"

7 — ROAD CLOSED 1.8 MILES AHEAD LOCAL TRAFFIC ONLY / DETOUR → — 60" x 30" / 48" x 18"

8 — ROAD CLOSED 0.2 MILES AHEAD LOCAL TRAFFIC ONLY / DETOUR ← — 60" x 30" / 48" x 18"

9 — ROAD CLOSED — 48" x 30"



DETOUR NOTES

1. During the period of road closure the contractor shall block the road off with 30ft of temporary concrete barrier located behind the Type III Barricades (#9)
2. Road shall only be closed while school is not in session, as specified in the Special Provisions

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

017873.00

WIN 17873.00

BRIDGE NO. 1219 — BRIDGE PLANS

PROJ. MANAGER	B. CONDEN	BY	DATE
DESIGN-DETAILED	OGK	OGK	NOV 2011
CHECKED-REVIEWED	GNM	JJH	DEC 2011
DESIGN2-DETAILED2	-------	-------	-------
DESIGN3-DETAILED3	-------	-------	-------
REVISIONS 1	-------	-------	-------
REVISIONS 2	-------	-------	-------
REVISIONS 3	-------	-------	-------
REVISIONS 4	-------	-------	-------
FIELD CHANGES	-------	-------	-------

SIGNATURE

9099

P.E. NUMBER

11/2011

DATE

FORD BRIDGE
OVER LITTLE RIVER
LEBANON — YORK COUNTY

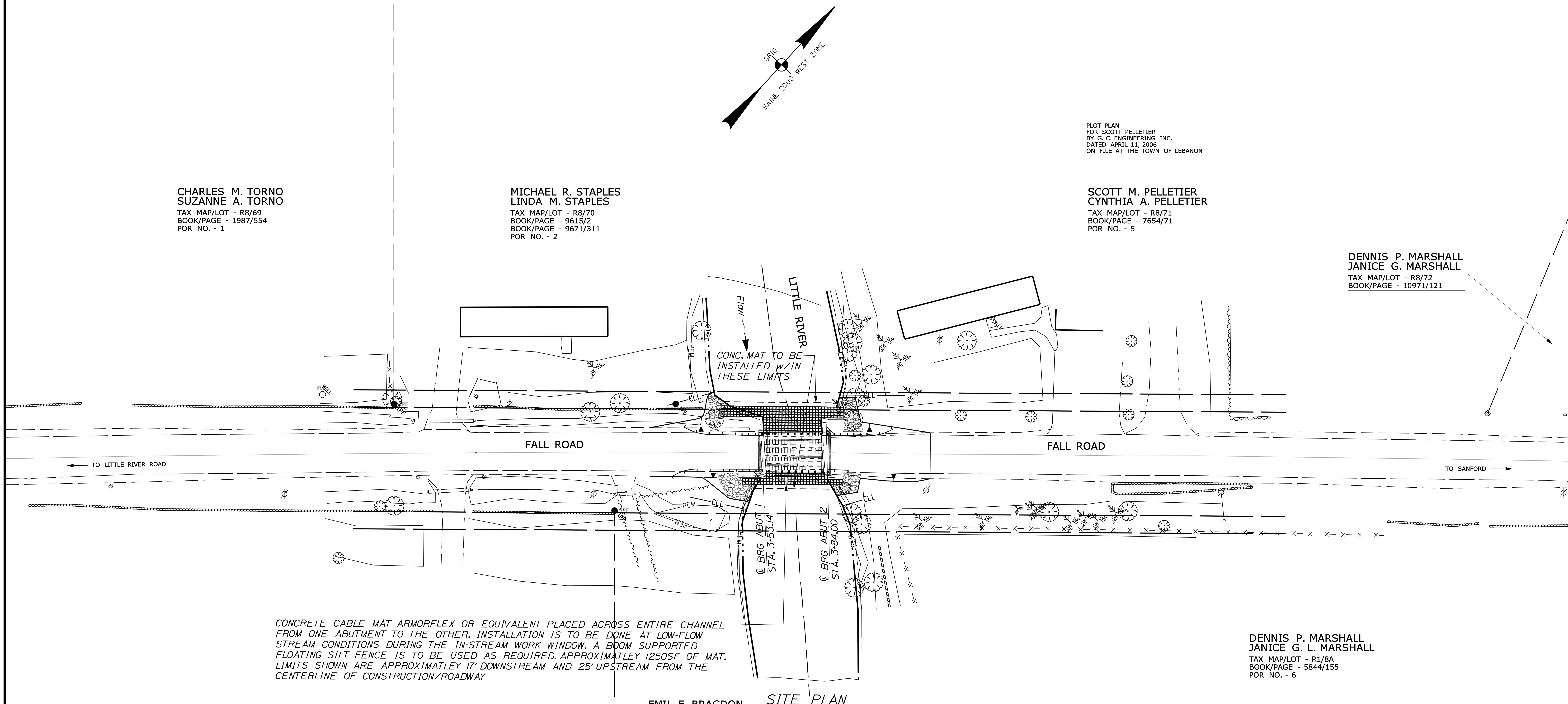
DETOUR PLAN

SHEET NUMBER

16

OF 17

CALDERWOOD ENGINEERING
222 RIVER ROAD
RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008



Date:1/11/2012 Username: Coy.Williams Division: BRIDGE Filename: ...\00\bridge\msta\017_RWPLAN1.dgn

NOTES

1) EXISTING RIGHT OF WAY
   A) YORK COUNTY COMMISSIONERS RECORDS
      VOLUME 13, PAGE 6
      1792 3 & 4 RODS WIDE (49.5' & 66')

2) CONTROL INFORMATION
   A) HORIZONTAL DATUM - US STATE PLANE NAD83(1996)
      ZONE - MAINE 2000 WEST ZONE
      VERTICAL DATUM - NAVD 88
      COMBINED SCALE FACTOR - 0.9999878

3) TOWN OF LEBANON
   A) TAX MAPS R1 & R8

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY ____________
RECEIVED ____________, ______
at ____h____m____M and recorded in
Plan Book ________, Page ________
Attest: ____________
REGISTER

WIN 17873.00

SYMBOLS
● IP or ◉ IPF (IRON PIPE or PIN FOUND) ○ WELL (WELL)
S.T. (SEPTIC TANK) — GRADING LIMIT LINE
(ROW MONUMENT) — CONSTRUCTION LIMIT LINE
(TRAVERSE POINT) — PROPERTY LINE PL
WATER LINE — LIMITS OF WROUGHT PORTION (L.O.W.P.)
GAS LINE — EXISTING RIGHT OF WAY
ELECTRIC LINE — NEW RIGHT OF WAY
TELEPHONE LINE — NEW ROW WITHIN EXIST. ROW
SEWER LINE — 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
LEBANON
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID A. COLE
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE CHRISTOPHER W. KNIGHT 2257 PROFESSIONAL LAND SURVEYOR

To the best of my knowledge and belief the Highway Right of Way lines depicted hereon are based upon a survey conforming to the Standards of Practice promulgated by the Maine Board of Licensure for Professional Land Surveyors 02-360 CMR, Chapter 90; Exceptions: (1) No separate survey report, (2) Monumentation only as shown on plan. See sheet X of this plan set for coordinates. (3) Other boundary lines, including lines between abutters are approximate and for general reference purposes only.

FALL ROAD
TOWNWAY
LEBANON YORK COUNTY
FEDERAL AID PROJECT NO. BR-1787(300)X

DECEMBER 2010 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 16-TBD
SCALE 1" = 25' | SHEET 1 OF 1

SHEET NUMBER
17
OF 17