

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



**TRAFFIC DATA**

Current (2012) ADT ..... 1,710

**HYDROLOGIC DATA**

Drainage Area ..... 5.7 sq mi  
 Design Discharge (Q50) ..... 625 cfs  
 Check Discharge (Q100) ..... 730 cfs  
 Headwater Elevation (Q50) ..... 555.41 ft  
 Headwater Elevation (Q100) ..... 555.84 ft  
 Discharge Velocity (Q50) ..... 8.37 fps  
 Discharge Velocity (Q100) ..... 9.66 fps

**LIST OF DRAWINGS**

Title Sheet ..... 1  
 Estimated Quantities & General Notes ..... 2  
 Plan ..... 3  
 Countermeasure Details ..... 4  
 Right of Way Map ..... 5

## SHAPLEIGH YORK COUNTY SHAPLEIGH BRIDGE OVER PUMP BOX BROOK ROUTE 11 (SHAPLEIGH CORNER ROAD) BH-1833(000)X BRIDGE NO. 3637

**UTILITIES**

Central Maine Power Co.  
 Fairpoint Communications  
 Time Warner Cable

**MAINTENANCE OF TRAFFIC**

Contractor Shall Maintain a Minimum of One 11 Foot Lane of Alternating Traffic During Periods of Work. Road is to be Reopened to Traffic at the Close of Each Work Day.

<b>PROJECT LOCATION:</b>	Shapleigh Bridge (#3637) over the Pump Box Brook on Route 11 (Shapleigh Corner Road). Located 2.5 Miles North of the Route 11/109 Intersection. Lat 43°32'20.9", Long. -70°50'55.2"
<b>PROGRAM AREA:</b>	Bridge
<b>OUTLINE OF WORK:</b>	Bridge Scour Countermeasures: Installation of Countermeasure over Full Channel Width, on Adjacent Banks, and Incidental Work.

18330.00 WIN 18330.00

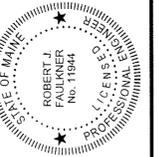
SHAPLEIGH BRIDGE

TITLE SHEET

SHEET NUMBER

1

OF 5



SIGNATURE: *[Signature]*  
 P.E. NUMBER: 11944  
 DATE: 2-25-13

PROGRAM	BRIDGE
PROJECT MANAGER	R. FAULKNER
DESIGNER	S. JOHNSON
CONSULTANT	CHA, INC.
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
APPROVED: *[Signature]*  
COMMISSIONER: *[Signature]*  
DATE: 2/27/13  
CHIEF ENGINEER: *[Signature]*

Filename: \Shapleigh 3637\001\_Title.dgn  
 Division:  
 Username:  
 Date: 2/25/2013

## ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
<b>ITEMS COMMON TO BOTH ALTERNATES</b>			
203.20	COMMON EXCAVATION	CY	20
511.07	COFFERDAM (LEFT ABUTMENT)	LS	1
511.07	COFFERDAM (RIGHT ABUTMENT)	LS	1
610.11	STONE BLANKET	CY	60
629.05	HAND LABOR, STRAIGHT TIME	HR	10
631.121	HVY DUTY ALL PURP EXC (INC OPER)	HR	10
631.172	TRUCK-LARGE (INC OPER)	HR	10
639.19	FIELD OFFICE TYPE B	EA	1
652.33	DRUM	EA	25
652.34	CONE	EA	25
652.35	CONSTRUCTION SIGNS	SF	100
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	1
652.38	FLAGGER	HR	40
656.75	TEMP SOIL EROSION & WATER POLLUTION CONTROL	LS	1
659.10	MOBILIZATION	LS	1
<b>ITEMS COMMON TO ALTERNATE NO. 1 (PARTIALLY GROUTED RIPRAP)</b>			
610.522	PARTIALLY GROUTED RIP-RAP (9 INCH)	CY	90
620.50	EROSION CONTROL FILTER LAYER	SY	170
<b>ITEMS COMMON TO ALTERNATE NO. 2 (CONCRETE CABLE MATS)</b>			
502.83	CONCRETE CABLE MAT	SF	1500

## GENERAL CONSTRUCTION NOTES

1. If necessary, temporary one lane closure with flagged alternating one way traffic may be utilized during periods of work. Road is to be reopened to two-way traffic at the close of each work day. Subject to coordination with the Resident and the Town.
2. Left and Right designations are based on looking downstream.
3. Payment for equipment, labor, and materials to access the work, as well as re-establish original ground, will be considered incidental to related Contract Bid Items.
4. 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 Bid Items.
5. Contractor shall be aware of overhead utilities parallel to the downstream fascia. Location of any additional utilities is unknown.
6. Plans of the existing structure are available on the MaineDOT website for information only. Existing plans may not be current or "as-built".
7. Contractor shall field verify stream bed elevations along the upstream bridge fascia, downstream bridge fascia and along the centerline of the bridge. Streambed elevations shall be taken every 5 feet along all three lines and provided to the Resident. Resident will determine final streambed elevation(s) based on this information. This work shall not be paid for directly and will be considered incidental to related contract items.
8. Sections shown on the design plans depict "typical" conditions and the intent of the installation and may have to be altered to fit actual site conditions as directed by the Resident.
9. Outlines of the countermeasure installation are approximate and represent the minimum dimensions desired. The Resident may direct modifications to fit site conditions.
10. Estimates of quantities are necessarily approximate. Payment will be made on actual quantities installed to the satisfaction of the Resident.
11. Quantities included for pay items measured and paid for by Lump Sum are estimate 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 estimate 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 estimate quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.
12. Excavation required for installation of countermeasure, as shown on the plans, shall be considered incidental to related Contract Bid Items. Quantity estimate for Item 203.20 shall be for any additional miscellaneous excavation, as directed by the Resident.
13. Grout testing and curing boxes shall be considered incidental to related Contract Bid Items.
14. Where stone protection exists on the banks, additional stone may be added to augment the protection, as directed by the Resident. The Resident may require removal of existing material judged unacceptable and installation of geotextile and filter material.

Date: 2/25/2013

Username:

Division:

Filename: ... \002\_Estimate.dgn

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BH - 1833(00)X  
WIN  
18330.00  
BRIDGE PLANS

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

DATE  
2/2/03  
2/2/03

BY  
M. Dames  
B. Horne

SIGNATURE  
P.E. NUMBER  
DATE

Shapleigh - BR 3637  
SCOUR COUNTERMEASURE  
INSTALLATION PLAN  
ESTIMATED QUANTITIES  
& GENERAL NOTES  
SHEET NUMBER  
2  
OF 5

Date: 2/25/2013

Username:

Division:

Filename: ... \Shapleigh 3637\003\_Bridge.dgn



Upstream Elevation

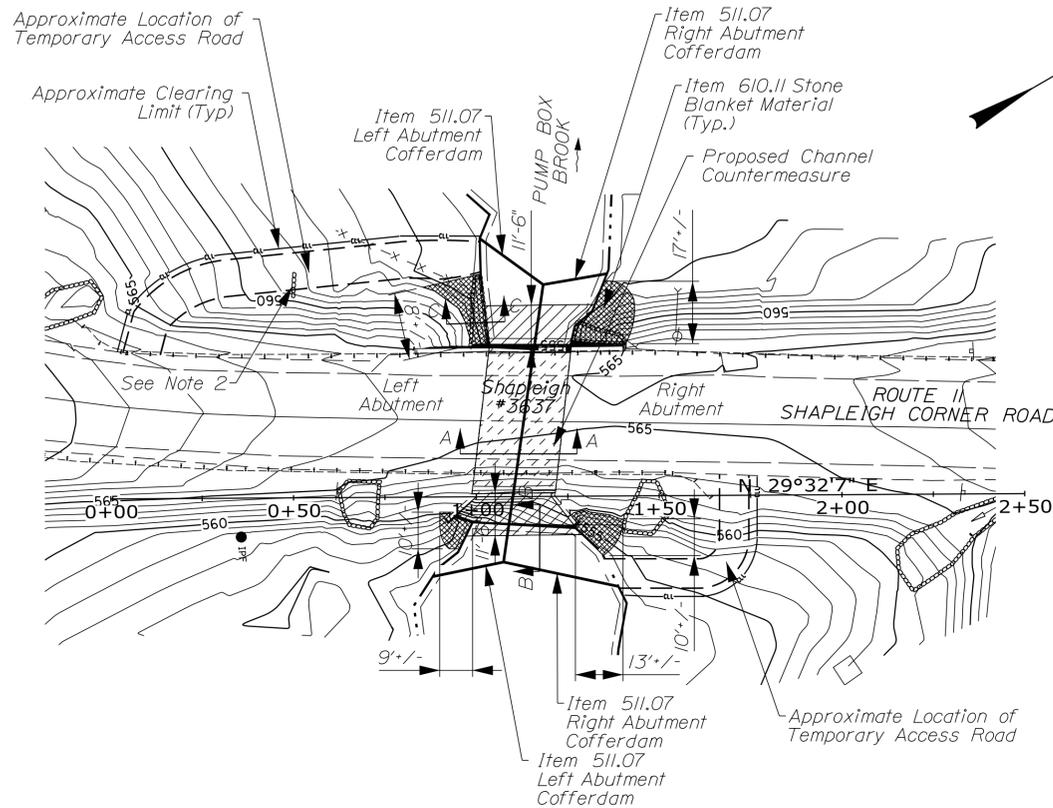


Downstream Elevation



Note: Left Abutment (Upstream)

Note: Straight Alignment Based Between Stations 1+00.0 and 1+20.5. Located at the Front Corner of the Wingwall as Shown in the Above Photo.



PLAN VIEW  
Scale: 1" = 25'

PLAN LEGEND

-  Proposed Channel Countermeasure\*
-  Proposed Channel Countermeasure\* Under Bridge
-  Proposed Stone Blanket Material\*\* Item (610.11)

\* See Sections on Sheet 4 for Minimum Thickness Requirements.  
\*\* Minimum Thickness of 3.5ft

Notes:

1. See Countermeasure Detail Sheet for Section A-A, B-B, and C-C.
2. Any Disturbance to Rock Walls Shall be Restored to Existing Conditions at the End of the Project and Shall be Considered Incidental to Related Contract Bid Items.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BH - 1833(000)X  
WIN  
18330.00  
BRIDGE PLANS

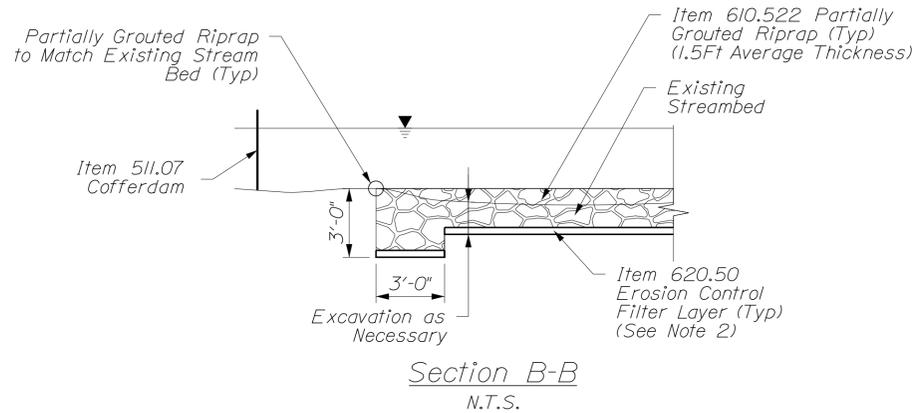
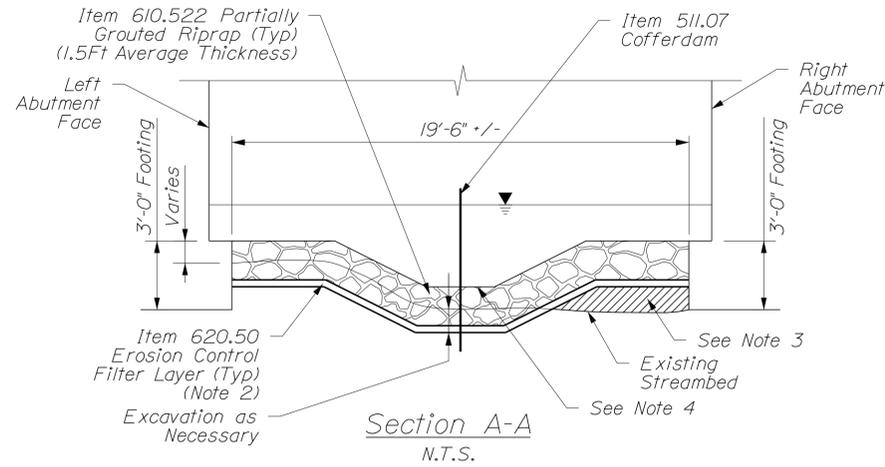
PROJ. MANAGER	DATE
DESIGN DETAILED	2/7/2013
CHECKED/REVIEWED	2/7/2013
DESIGN DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

BY	SIGNATURE
M. Dames	
B. Horne	
	P.E. NUMBER
	DATE

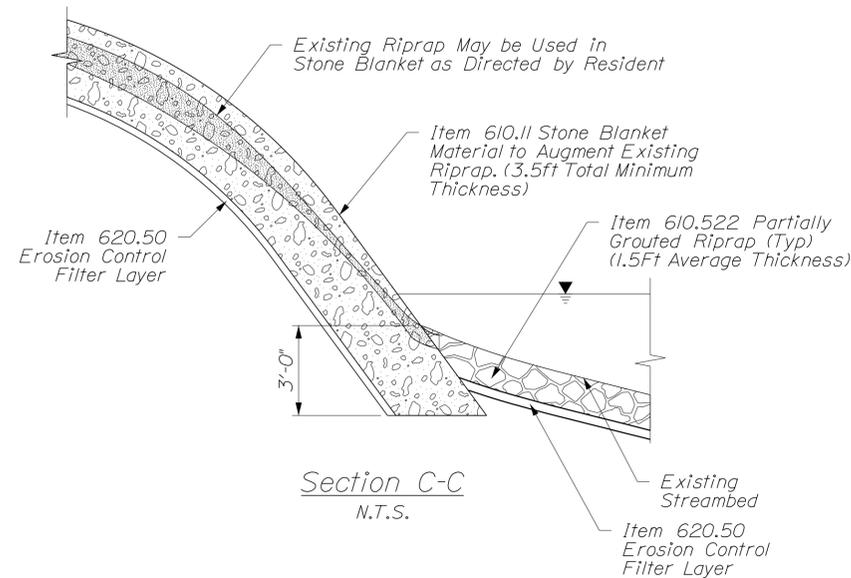
SHAPLEIGH BR 3637  
SCOUR COUNTERMEASURE  
INSTALLATION PLAN  
PLAN

SHEET NUMBER  
3  
OF 5

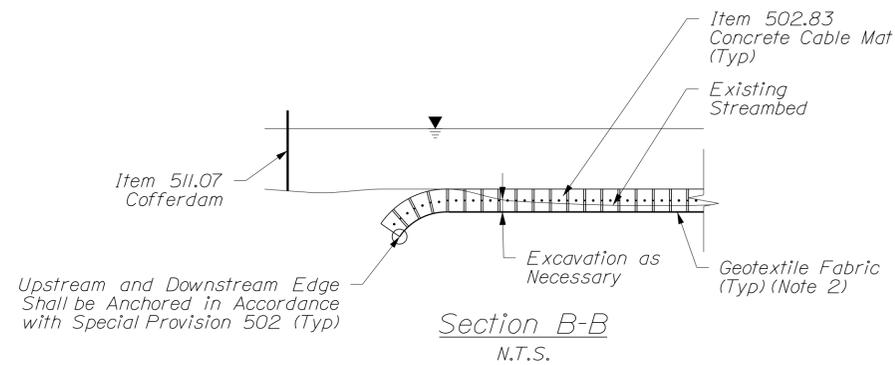
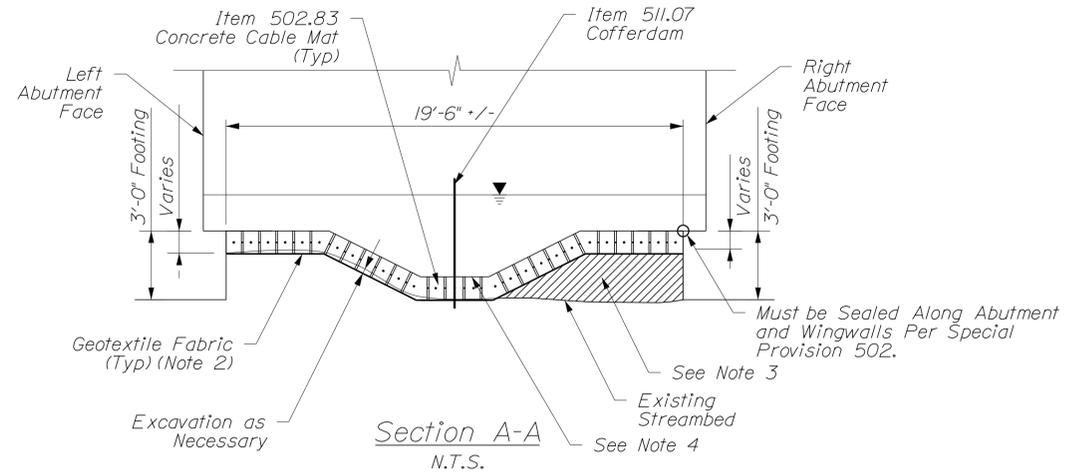
ALTERNATE 1 - PARTIALLY GROUTED RIPRAP



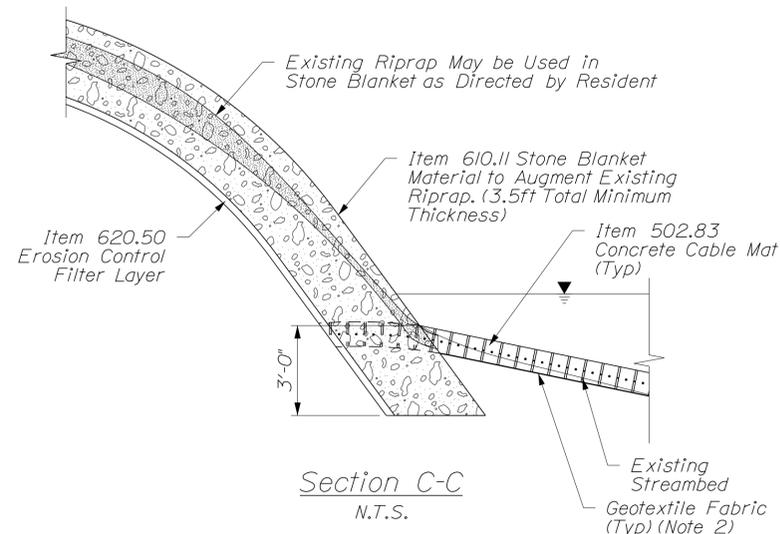
Note: Upstream Shown. Downstream Reach Similar



ALTERNATE 2 - CONCRETE CABLE MATS



Note: Upstream Shown. Downstream Reach Similar



Notes:

1. Clearance from Low Chord on the Downstream Fascia to Streambed During Field Visit on 11/7/2012 Varied from Approximately 7ft to 9ft, with a Water Depth of Approximately 2.0ft.
2. Protective Aggregate Cushion of Erosion Control Filter Layer Shall be 6" Thick Beneath Partially Grouted Riprap. Concrete Cable Mats Shall Bear Directly on Geotextile Fabric. Geotextile Fabric under Concrete Cable Mats Shall be Considered Incidental to Item 502.83.
3. Existing Streambed Shall be Leveled in Accordance with Ground Preparation Requirements as Stated in the Related Scour Countermeasure Item. Material Required to Raise Streambed Elevation Shall be Considered Incidental to Related Contract Bid Items.
4. For Required Low Flow Channel Dimensions, See the Related Countermeasure Specification. Upstream & Downstream Transition of Low Flow Channel to Existing Streambed Shall be as Directed by Resident.
5. Top of Countermeasure Shall be Flush With Top of Footing to Re-establish Streambed Elevation.

Date: 2/25/2013

Username:

Division:

Filename: ... \Shapleigh 3637\004\_Btyp.dgn

PROJ. MANAGER	R. Faulkner	DATE	2/27/2013
DESIGN DETAILED	S. Johnson	BY	M. Dames
CHECKED/REVIEWED	B. Horne	DATE	2/27/2013
DESIGN DETAILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SHAPLEIGH BR 3637	SCOUR COUNTERMEASURE
INSTALLATION PLAN	COUNTERMEASURE DETAILS

SHEET NUMBER  
**4**  
OF 5

Date: 2/19/2013

Username: guy.ladd

Division: ROW

Filename: ... \000\ROW\MSTA005\_RWPLAN1.dgn

ROBERT M. PIKE  
 ITEM NO. (1)  
 TEMP. CONST. RIGHTS = 1,070± S.F. (1)  
 TOTAL AREA = 3.26± AC. (PER TOWN)  
 TAX MAP/LOT - 45/1

FIRST BAPTIST CHURCH OF SHAPLEIGH  
 ITEM NO. (3)  
 CONST. & MAINT. EASE. = 1,235± S.F. (1)  
 TEMP. CONST. RIGHTS = 0.05± AC. (1)  
 TOTAL AREA = 7.54± AC. (PER TOWN)  
 TAX MAP/LOT - 45/4

LISA J. LANCRAFT  
 F/K/A LISA JEAN LESSARD  
 ROBERT ANDREW LANCRAFT  
 ITEM NO. (2)  
 CONST. & MAINT. EASE. = 656± S.F. (1)  
 TEMP. CONST. RIGHTS = 891± S.F. (1)  
 TOTAL AREA = 35.0± AC. (PER SURVEY PLAN)  
 TAX MAP/LOT - 5/37B

BONNIE E. ROMANO  
 DUANE E. ROMANO  
 ITEM NO. (4)  
 CONST. & MAINT. EASE. = 559± S.F. (1)  
 TEMP. CONST. RIGHTS = 1,459± S.F. (1)  
 TOTAL AREA = 1.52± AC. (PER SURVEY PLAN)  
 TAX MAP/LOT - 45/15

PLAN SHOWING A STANDARD BOUNDARY SURVEY  
 FOR LISA LESSARD  
 BY CORNER POST LAND SURVEYING, INC.  
 DATED - APRIL 10, 1997  
 JOB NO. 96-37

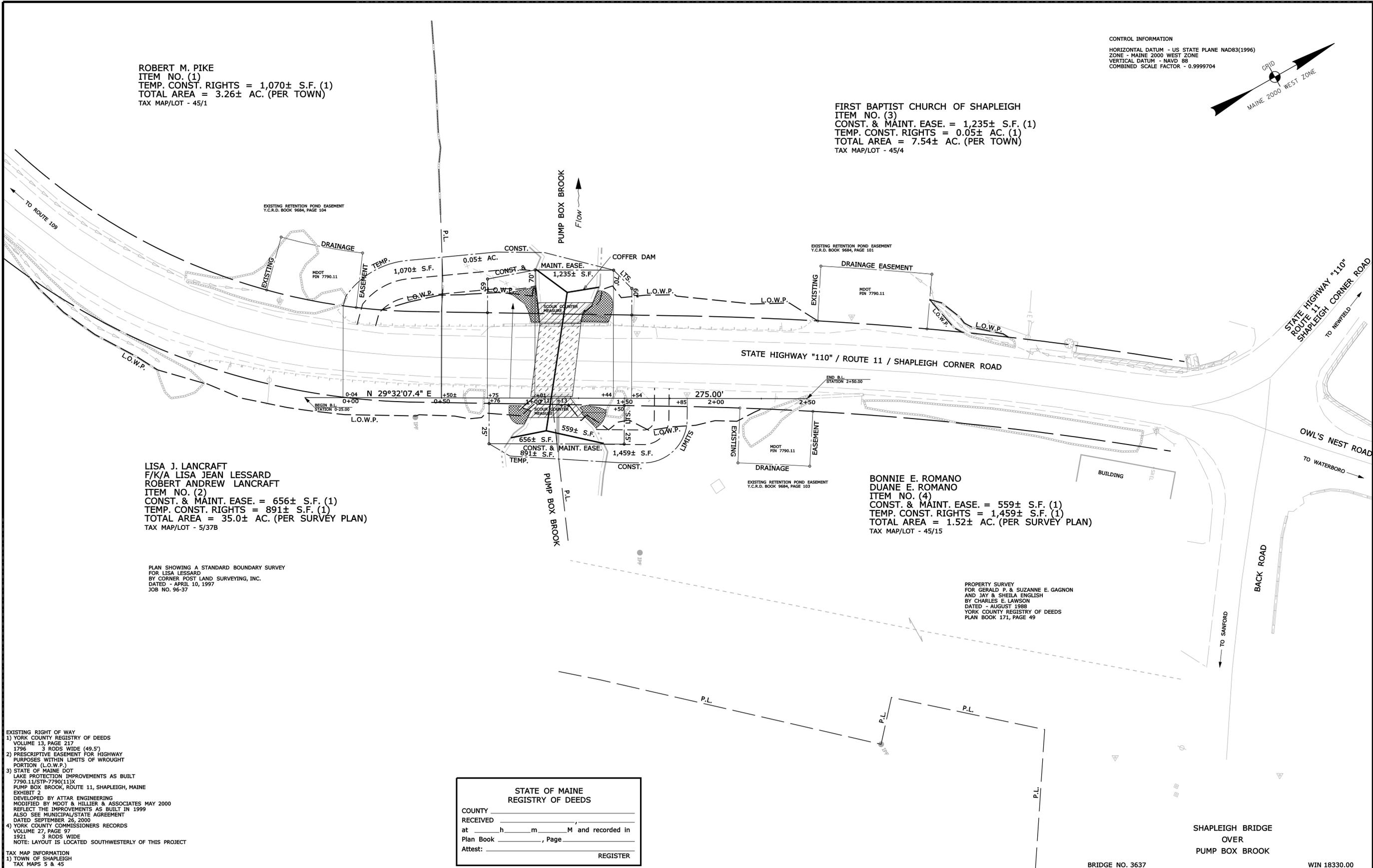
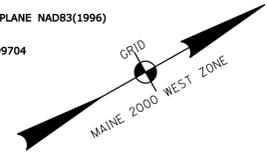
- EXISTING RIGHT OF WAY
- 1) YORK COUNTY REGISTRY OF DEEDS  
 VOLUME 13, PAGE 217  
 1796 3 RODS WIDE (49.5')
  - 2) PRESCRIPTIVE EASEMENT FOR HIGHWAY  
 PURPOSES WITHIN LIMITS OF WROUGHT  
 PORTION (L.O.W.P.)
  - 3) STATE OF MAINE DOT  
 LAKE PROTECTION IMPROVEMENTS AS BUILT  
 7790.11/STP-7790(11)  
 PUMP BOX BROOK, ROUTE 11, SHAPLEIGH, MAINE  
 EXHIBIT 2  
 DEVELOPED BY ATTAR ENGINEERING  
 MODIFIED BY MDOT & HILLIER & ASSOCIATES MAY 2000  
 REFLECT THE IMPROVEMENTS AS BUILT IN 1999  
 ALSO SEE MUNICIPAL/STATE AGREEMENT  
 DATED SEPTEMBER 26, 2000
  - 4) YORK COUNTY COMMISSIONERS RECORDS  
 VOLUME 27, PAGE 97  
 1921 3 RODS WIDE  
 NOTE: LAYOUT IS LOCATED SOUTHWESTERLY OF THIS PROJECT

TAX MAP INFORMATION  
 1) TOWN OF SHAPLEIGH  
 TAX MAPS 5 & 45

STATE OF MAINE  
 REGISTRY OF DEEDS

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

CONTROL INFORMATION  
 HORIZONTAL DATUM - US STATE PLANE NAD83(1996)  
 ZONE - MAINE 2000 WEST ZONE  
 VERTICAL DATUM - NAVD 88  
 COMBINED SCALE FACTOR - 0.9999704



PROPERTY SURVEY  
 FOR GERALD P. & SUZANNE E. GAGNON  
 AND JAY & SHEILA ENGLISH  
 BY CHARLES E. LAWSON  
 DATED - AUGUST 1988  
 YORK COUNTY REGISTRY OF DEEDS  
 PLAN BOOK 171, PAGE 49

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 ADJUTING PROPERTY OWNERS.

SYMBOLS

• IP or • PIP (IRON PIPE OR PIN FOUND)	○ WELL (WELL)
□ S.T. (SEPTIC TANK)	— GRADING LIMIT LINE
△ BM (TRAVERSE POINT)	— CONSTRUCTION LIMIT LINE
— WATER LINE	— PROPERTY LINE
— GAS LINE	— PL
— ELECTRIC LINE	— LIMITS OF WROUGHT PORTION (L.O.W.P.)
— TELEPHONE LINE	— EXISTING RIGHT OF WAY
— SEWER LINE	— NEW RIGHT OF WAY
	— NEW ROW WITHIN EXIST. ROW
	— CONTROL OF ACCESS

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

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

BRIDGE NO. 3637 WIN 18330.00

NO.	DATE	REVISIONS DESCRIPTION	BY	PLAN FILED IN PLAN BOOK		COUNTY RECORD				
				NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	
						COND.	2/12/13	16529	797	

DAVID BERNHARDT  
 COMMISSIONER  
 KENNETH L. SWEENEY  
 CHIEF ENGINEER  
 DATE \_\_\_\_\_

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.

STATE HIGHWAY "110"  
 ROUTE 11 / SHAPLEIGH CORNER ROAD  
 SHAPLEIGH YORK COUNTY  
 FEDERAL AID PROJECT NO. BH-1833(000)X  
 JANUARY 2013 RIGHT-OF-WAY MAP  
 SCALE 1" = 25' SHEET 1 OF 1  
 D.O.T. FILE NO. 16-486

SHEET NUMBER  
 5  
 OF 5

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



### LIST OF DRAWINGS

Title Sheet .....	1
Estimated Quantities & General Notes .....	2
Plan .....	3
Countermeasure Details .....	4
Right of Way Map .....	5

### TRAFFIC DATA

Current (2012) ADT ..... 8980

### HYDROLOGIC DATA

Drainage Area .....	15.5 sq mi
Design Discharge (Q50) .....	1,260 cfs
Check Discharge (Q100) .....	1,457 cfs
Headwater Elevation (Q50) .....	227.15 ft
Headwater Elevation (Q100) .....	227.52 ft
Discharge Velocity (Q50) .....	6.34 fps
Discharge Velocity (Q100) .....	6.99 fps

## ALFRED YORK COUNTY STEVENS MILL BRIDGE OVER MIDDLE BRANCH OF THE MOUSAM RIVER ROUTE 4 (JORDAN SPRING ROAD) BRIDGE NO. 3828

### UTILITIES

Central Maine Power Co.  
Alfred Water District  
Fairpoint Communications  
Time Warner Cable

### MAINTENANCE OF TRAFFIC

Contractor Shall Maintain a Minimum of One 11 Foot Lane of Alternating Traffic During Periods of Work. Road is to be Reopened to Traffic at the Close of Each Work Day.

<b>PROJECT LOCATION:</b>	Stevens Mill Bridge (#3828) over the Middle Branch of the Mousam River on Route 4 (Jordan Spring Road). Located 300 ft South of State Route 202. Lat 43°28'12.2", Long. -70°43'12.2"
<b>PROGRAM AREA:</b>	Bridge
<b>OUTLINE OF WORK:</b>	Bridge Scour Countermeasures: Installation of Countermeasure over full channel width, on adjacent banks, and Incidental Work.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

APPROVED: *[Signature]* DATE: 3/1/13

COMMISSIONER: *[Signature]* CHIEF ENGINEER: *[Signature]* 3/27/13

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
PROFESSIONAL ENGINEER  
ROBERT J. FALKNER  
No. 1494  
P.E. NUMBER: 17944  
DATE: 2-25-13

PROGRAM	BRIDGE
PROJECT MANAGER	R. FALKNER
DESIGNER	S. JOHNSON
CONSULTANT	CHA, INC.
PROJECT RESIDENT CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 19271.00

19271.00

ALFRED  
STEVENS MILL BRIDGE  
TITLE SHEET

SHEET NUMBER  
**1**  
OF 5

Filename: \Alfred\_3828\001\_Title.dgn  
Division:  
User name:  
Date: 2/25/2013

## ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
ITEMS COMMON TO BOTH ALTERNATES			
203.20	COMMON EXCAVATION	CY	20
511.07	COFFERDAM (LEFT ABUTMENT)	LS	1
511.07	COFFERDAM (RIGHT ABUTMENT)	LS	1
610.11	STONE BLANKET	CY	80
629.05	HAND LABOR, STRAIGHT TIME	HR	10
631.121	HVY DUTY ALL PURP EXC (INC OPER)	HR	10
631.172	TRUCK-LARGE (INC OPER)	HR	10
639.19	FIELD OFFICE TYPE B	EA	1
652.33	DRUM	EA	25
652.34	CONE	EA	25
652.35	CONSTRUCTION SIGNS	SF	100
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	1
652.38	FLAGGER	HR	40
656.75	TEMP SOIL EROSION & WATER POLLUTION CONTROL	LS	1
659.10	MOBILIZATION	LS	1
ITEMS COMMON TO ALTERNATE NO. 1 (PARTIALLY GROUTED RIPRAP)			
610.522	PARTIALLY GROUTED RIP-RAP (9 INCH)	CY	120
620.50	EROSION CONTROL FILTER LAYER	SY	240
ITEMS COMMON TO ALTERNATE NO. 2 (CONCRETE CABLE MATS)			
502.83	CONCRETE CABLE MAT	SF	2090

## GENERAL CONSTRUCTION NOTES

1. If necessary, temporary one lane closure with flagged alternating one way traffic may be utilized during periods of work. Road is to be reopened to two-way traffic at the close of each work day. Subject to coordination with the Resident and the Town.
2. Left and Right designations are based on looking downstream.
3. Payment for equipment, labor, and materials to access the work, as well as re-establish original ground, will be considered incidental to related Contract Bid Items.
4. 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 Bid Items.
5. Contractor shall be aware of overhead utilities parallel to the downstream fascia. A new 12" water main is located upstream of the existing bridge. A pre-construction meeting will be required to discuss location and depth of the pipe. There is also an old water main downstream of the bridge, which is considered to be abandoned and may be removed if found in conflict of the scour countermeasure installation, as directed by the Resident. Removal cost shall be considered incidental to Contract Bid Items. The contractor shall refer to the Utility Special Provision Spec 104 additional utility information.
6. Plans of the existing structure are available on the MaineDOT website for information only. Existing plans may not be current or "as-built".
7. Contractor shall field verify stream bed elevations along the upstream bridge fascia, downstream bridge fascia and along the centerline of the bridge. Streambed elevations shall be taken every 5 feet along all three lines and provided to the Resident. Resident will determine final streambed elevation(s) based on this information. This work shall not be paid for directly and will be considered incidental to related contract items.
8. Sections shown on the design plans depict "typical" conditions and the intent of the installation and may have to be altered to fit actual site conditions as directed by the Resident.
9. Outlines of the countermeasure installation are approximate and represent the minimum dimensions desired. The Resident may direct modifications to fit site conditions.
10. Estimates of quantities are necessarily approximate. Payment will be made on actual quantities installed to the satisfaction of the Resident.
11. Quantities included for pay items measured and paid for by Lump Sum are estimate 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 estimate 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 estimate quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.
12. Excavation required for installation of countermeasure, as shown on the plans, shall be considered incidental to related Contract Bid Items. Quantity estimate for Item 203.20 shall be for any additional miscellaneous excavation, as directed by the Resident.
13. Grout testing and curing boxes shall be considered incidental to related Contract Bid Items.
14. Where stone protection exists on the banks, additional stone may be added to augment the protection, as directed by the Resident. The Resident may require removal of existing material judged unacceptable and installation of geotextile and filter material.

Date: \$date\$

Username: \$user\$

Division: \$wkgroup\$

Filename: \$file\$

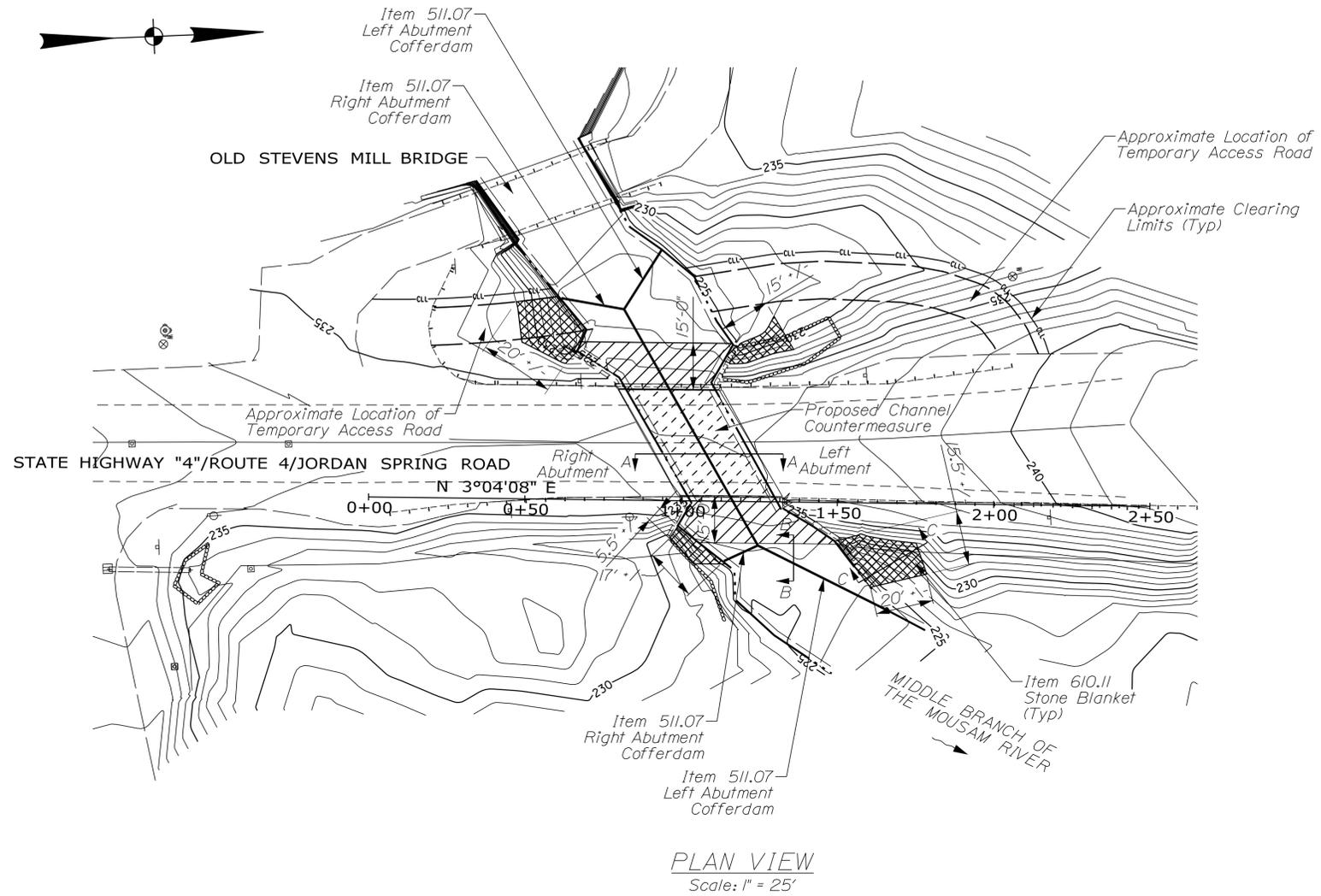
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	BRIDGE PLANS WIN 19271.00	BRIDGE No. 3828	
PROJ. MANAGER	R. Faulkner	BY	DATE
DESIGN-DETAILED	S. Johnson	M. Dames	2/7/03
CHECKED-REVIEWED	B. Horne	B. Horne	2/7/03
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
Alfred - BR 3828 SCOUR COUNTERMEASURE INSTALLATION PLAN		ESTIMATED QUANTITIES & GENERAL NOTES	
SHEET NUMBER			
2			
OF 5			

Date: 2/25/2013

Username:

Division:

Filename: ... \Alfred 3828\003\_Bridge.dgn



Note:

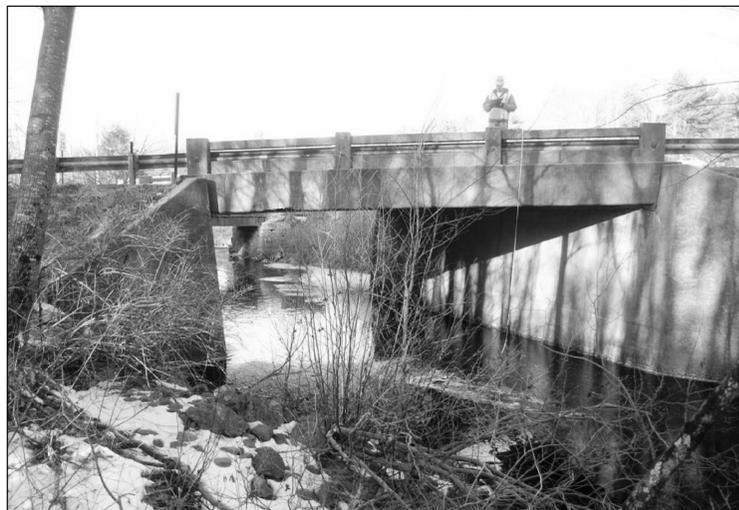
1. See Countermeasure Detail Sheet for Section A-A, B-B and C-C.

**PLAN LEGEND**

-  Proposed Channel Countermeasure\*
-  Proposed Channel Countermeasure\* Under Bridge
-  Proposed Stone Blanket Material\*\* (Item 610.11)

\* See Sections on Sheet 4 for Minimum Thickness Requirements.

\*\* Minimum Thickness of 3.5 ft.



*Downstream Elevation*



*Upstream Elevation*



*Right Abutment (Downstream)*

(Left Abutment Similar)

Note: Straight Alignment Based Between Stations 1+00 and 1+33.3, Located at End Corner of the Top of Curb on the Fascia Side as Shown in the Above Photo.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

SIGNATURE

DATE

BY

R. Faulkner

DESIGN-Detailed

CHECKED-Reviewed

DESIGN-Detailed

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

P.E. NUMBER

DATE

WIN

19271.00

BRIDGE No. 3828

BRIDGE PLANS

ALFRED BR 3828

SCOUR COUNTERMEASURE

INSTALLATION PLAN

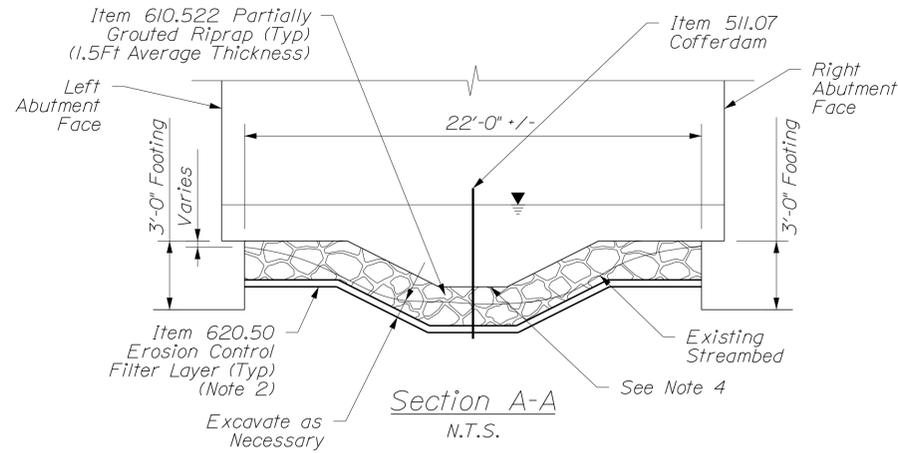
PLAN

SHEET NUMBER

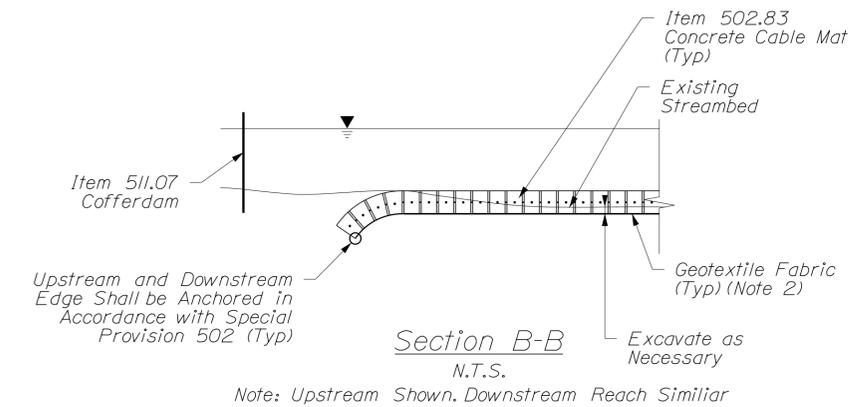
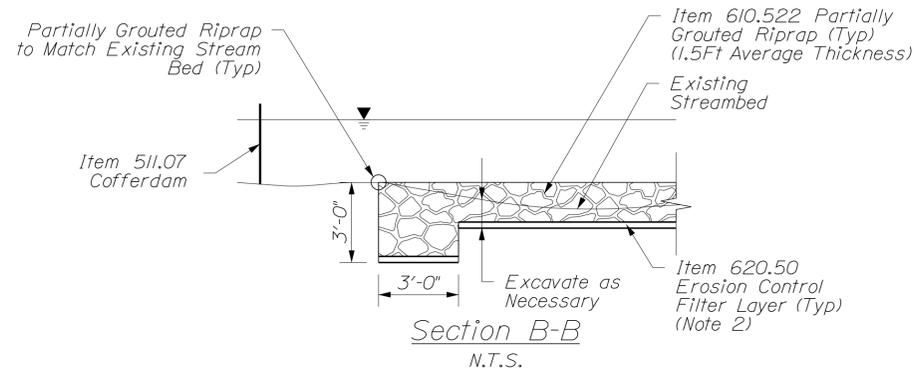
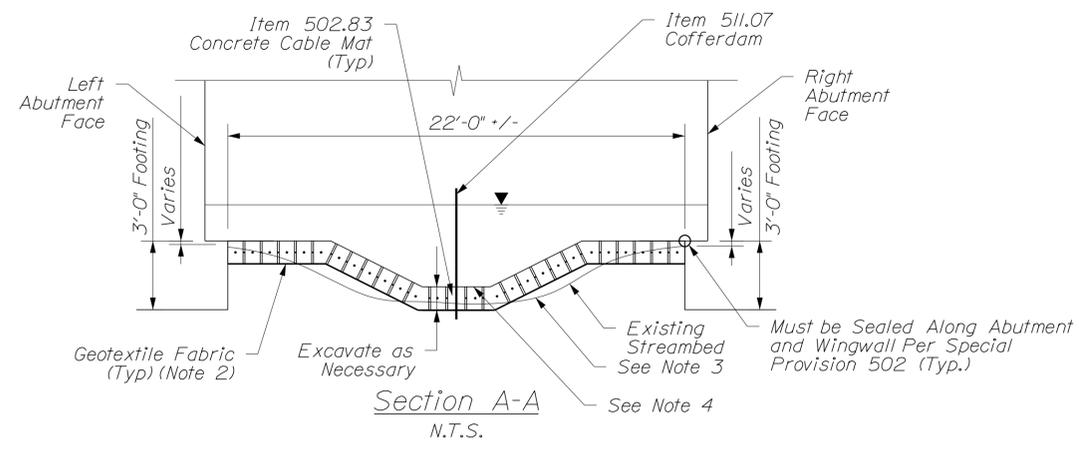
3

OF 5

ALTERNATE 1 - PARTIALLY GROUTED RIPRAP

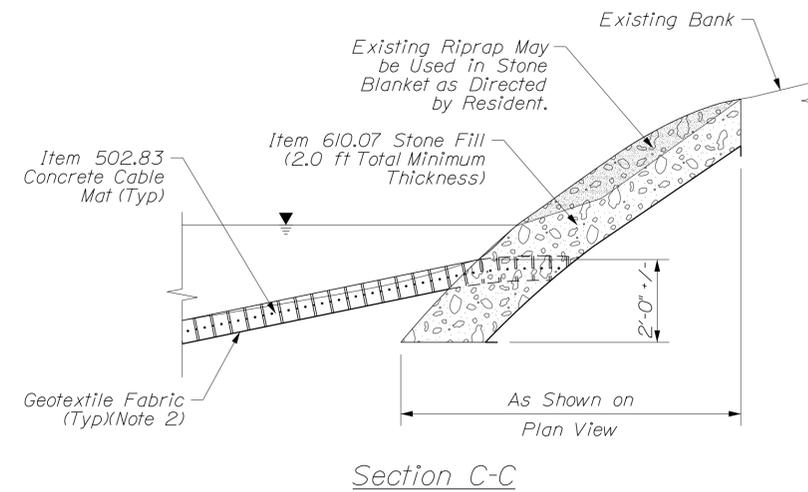
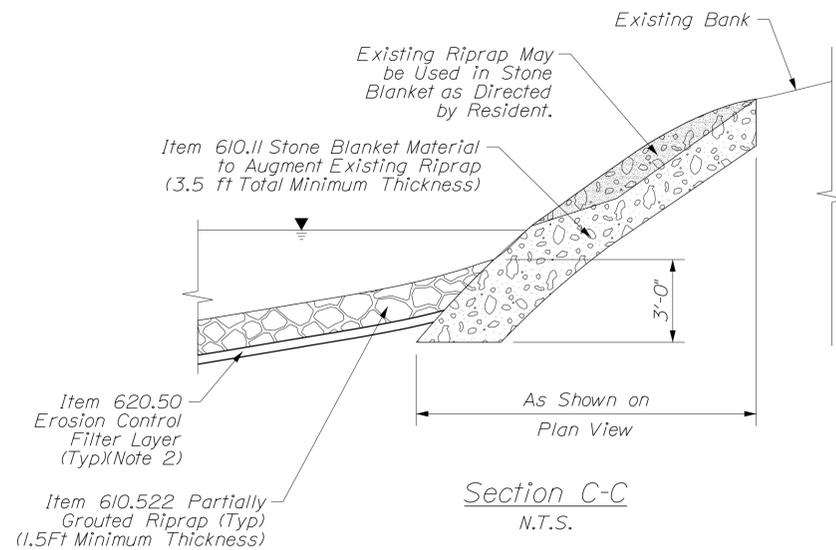


ALTERNATE 2 - CONCRETE CABLE MATS



Note: Downstream Shown. Upstream Reach Similar

Note: Upstream Shown. Downstream Reach Similar



Notes:

1. Clearance From Low Chord to Streambed During Field Visit on 2/20/2012 Varied From 12.3ft to 15.0ft, With a Water Depth of Approximately 4.0ft.
2. Protective Aggregate Cushion of Erosion Control Filter Layer Shall be 6" Thick Beneath Partially Grouted Riprap. Concrete Cable Mats Shall Bear Directly on Geotextile Fabric. Geotextile Fabric Under Concrete Cable Mats Shall be Considered Incidental to Item 502.83.
3. Existing Streambed Shall be Leveled in Accordance With Ground Preparation Requirements as Stated in the Related Scour Countermeasure item. Material Required to Raise Streambed Elevations Shall be Considered Incidental to Related Contract Bid Items.
4. For Required Low Flow Channel Dimensions, See the Related Countermeasure Specification. Upstream & Downstream Transition of Low Flow Channel to Existing Streambed Shall be as Directed by Resident.
5. Top of Countermeasure Shall be Flush With Top of Footing to Re-establish Streambed Elevation.

Date: 2/25/2013

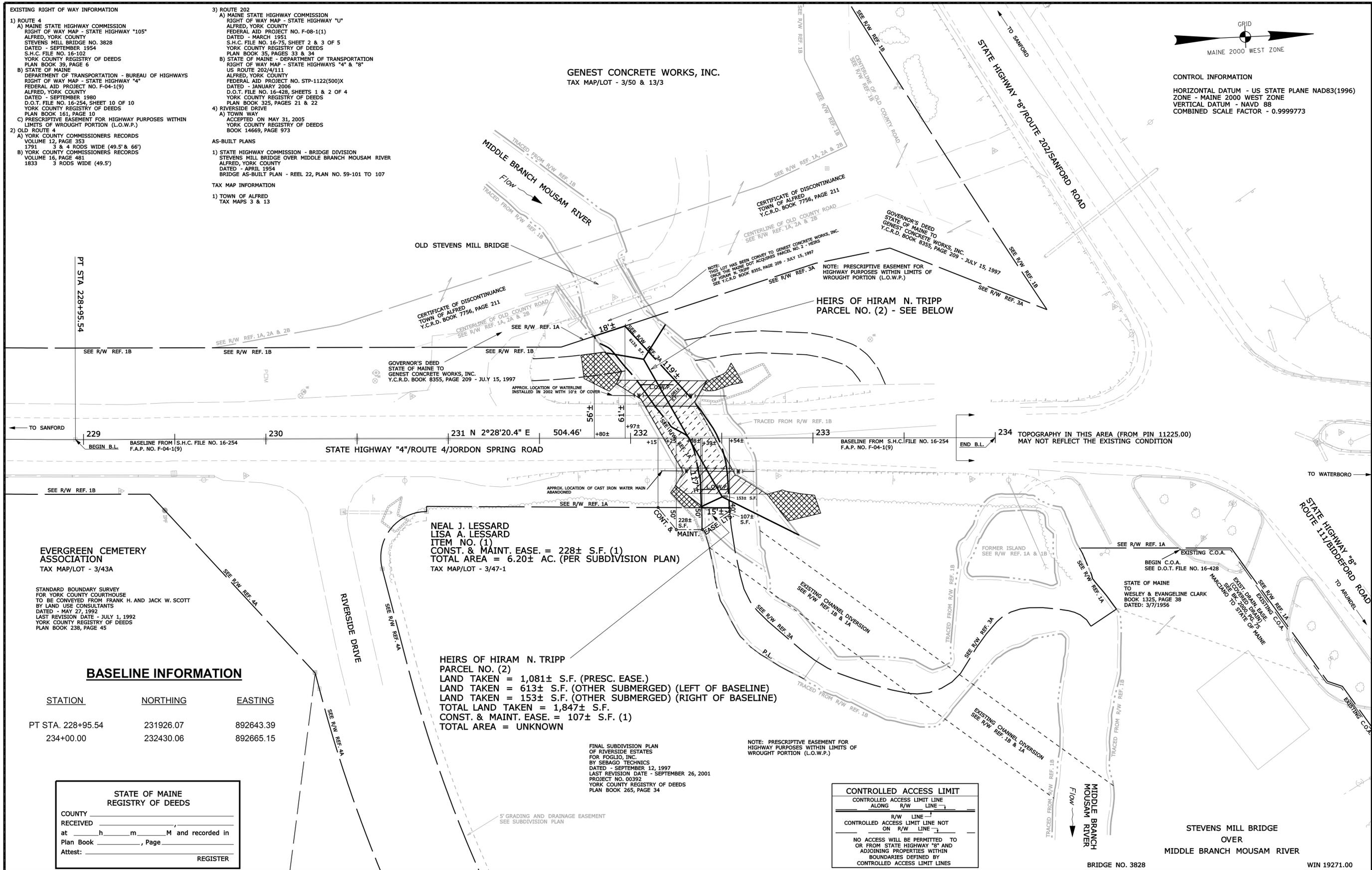
Username:

Filename: ... \MSTN\Alfred 3828\004\_Btyp.dgn Division:

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
R. Faulkner	M. Dames	2/2013			
DESIGN DETAILED	S. Johnson	2/2013			
CHECKED/REVIEWED	B. Horne				
DESIGN DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

ALFRED BR 3828  
 SCOUR COUNTERMEASURE  
 INSTALLATION PLAN  
 COUNTERMEASURE DETAILS

Date: 2/8/2013  
 Username: guy.ladd  
 Division: ROW  
 File name: ... \00\ROW\MSTA005\_RWPLAN1.dgn



GRID  
 MAINE 2000 WEST ZONE

**CONTROL INFORMATION**

HORIZONTAL DATUM - US STATE PLANE NAD83(1996)  
 ZONE - MAINE 2000 WEST ZONE  
 VERTICAL DATUM - NAVD 88  
 COMBINED SCALE FACTOR - 0.9999773

**SYMBOLS**

•	PI (P)	IRON PIPE (OR PIN FOUND)
□	S.T.	SEPTIC TANK
▲	BM	BENCHMARK (TRAVERSE POINT)
—	W	WATER LINE
—	G	GAS LINE
—	E	ELECTRIC LINE
—	T	TELEPHONE LINE
—	S	SEWER LINE
○	(WELL)	WELL
—	—	GRADING LIMIT LINE
—	—	CONSTRUCTION LIMIT LINE
—	—	PROPERTY LINE
—	—	LIMITS OF WROUGHT PORTION (L.O.W.P.)
—	—	EXISTING RIGHT OF WAY
—	—	NEW RIGHT OF WAY
—	—	NEW R/W WITHIN EXIST. R/W
—	—	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  
**ALFRED**  
**RIGHT OF WAY MAP**

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

DAVID BERNHARDT  
 COMMISSIONER  
 KENNETH L. SWEENEY  
 CHIEF ENGINEER

DATE

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.

**STATE HIGHWAY "4"**  
**ROUTE 4 / JORDON SPRING ROAD**  
**ALFRED YORK COUNTY**  
**STATE PROJECT NO. 19271.00**

OCTOBER 2012  
 SCALE 1" = 25'

RIGHT-OF-WAY MAP  
 SHEET 1 OF 1

D.O.T. FILE NO. 16-485

**SHEET NUMBER**  
**5**  
 OF 5

# STATE OF MAINE DEPARTMENT OF TRANSPORTATION



## SANFORD YORK COUNTY POWERS BRIDGE OVER MOUSAM RIVER ROUTE 4 (ALFRED STREET) BRIDGE NO. 3827

### TRAFFIC DATA

Current (2012) ADT ..... 11,210

### HYDROLOGIC DATA

Drainage Area ..... 45 sq mi  
 Design Discharge (Q50) ..... 1,987 cfs  
 Check Discharge (Q100) ..... 2,276 cfs  
 Headwater Elevation (Q50) ..... 235.69 ft  
 Headwater Elevation (Q100) ..... 236.13 ft  
 Discharge Velocity (Q50) ..... 7.72 fps  
 Discharge Velocity (Q100) ..... 8.31 fps

### LIST OF DRAWINGS

Title Sheet .....	1
Estimated Quantities & General Notes .....	2
Plan .....	3
Countermeasure Details .....	4
Right of Way Map .....	5

### UTILITIES

Central Maine Power Co.  
 Metrocast Cablevision  
 Fairpoint Communications  
 Sanford Water District

### MAINTENANCE OF TRAFFIC

Contractor Shall Maintain a Minimum of One 11 Foot Lane of Alternating Traffic During Periods of Work. Road is to be Reopened to Traffic at the Close of Each Work Day.

<b>PROJECT LOCATION:</b>	Powers Bridge (#3827) over the Mousam River on Route 4 (Alfred Street). Located 0.5 Miles Northeast of Route 109. Lat 43°25'6.1", Long. -70°44'17.8"
<b>PROGRAM AREA:</b>	Bridge
<b>OUTLINE OF WORK:</b>	Bridge Scour Countermeasures: Installation of Countermeasure on Abutment Embankments and Incidental Work.

### UTILITY INFORMATION

Central Maine Power Co.  
 Metrocast Cablevision  
 Fairpoint Communications  
 Sanford Water District

### MAINTENANCE OF TRAFFIC

Contractor Shall Maintain a Minimum of One 11 Foot Lane of Alternating Traffic During Periods of Work. Road is to be Reopened to Traffic at the Close of Each Work Day.

WIN 19272.00

19272.00

SANFORD  
POWERS BRIDGE  
TITLE SHEET

SHEET NUMBER

1

OF 5



SIGNATURE: *[Signature]*  
 P.E. NUMBER: 11944  
 DATE: 2-25-13

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
APPROVED: *[Signature]*  
COMMISSIONER: *[Signature]*  
CHIEF ENGINEER: *[Signature]*  
DATE: 2/27/13

Date: 2/25/2013

Username:

Division:

Filename: \Sanford -- \*3827\001\_Title.dgn

# ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203.20	COMMON EXCAVATION	CY	20
511.07	COFFERDAM (LEFT ABUTMENT)	LS	1
511.07	COFFERDAM (RIGHT ABUTMENT)	LS	1
610.07	STONE FILL	CY	400
620.50	EROSION CONTROL FILTER LAYER	SY	400
629.05	HAND LABOR, STRAIGHT TIME	HR	10
631.121	HVY DUTY ALL PURP EXC (INC OPER)	HR	10
631.172	TRUCK-LARGE (INC OPER)	HR	10
652.33	DRUM	EA	25
652.34	CONE	EA	25
652.35	CONSTRUCTION SIGNS	SF	100
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	1
652.38	FLAGGER	HR	40
656.75	TEMP SOIL EROSION & WATER POLLUTION CONTROL	LS	1
659.10	MOBILIZATION	LS	1

# GENERAL CONSTRUCTION NOTES

1. If necessary, temporary one lane closure with flagged alternating one way traffic may be utilized during periods of work. Road is to be reopened to two-way traffic at the close of each work day. Subject to coordination with the Resident and the Town.
2. Left and Right designations are based on looking downstream.
3. Payment for equipment, labor, and materials to access the work, as well as re-establish original ground, will be considered incidental to related Contract Bid Items.
4. 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 Bid Items.
5. Contractor shall be aware of overhead utilities parallel to the upstream fascia. Location of any additional utilities is unknown.
6. Plans of the existing structure are available on the MaineDOT website for information only. Existing plans may not be current or "as-built".
7. Contractor shall field verify stream bed elevations along the upstream bridge fascia, downstream bridge fascia and along the centerline of the bridge. Streambed elevations shall be taken every 5 feet along all three lines and provided to the Resident. Resident will determine final streambed elevation(s) based on this information. This work shall not be paid for directly and will be considered incidental to related contract items.
8. Sections shown on the design plans depict "typical" conditions and the intent of the installation and may have to be altered to fit actual site conditions as directed by the Resident.
9. Outlines of the countermeasure installation are approximate and represent the minimum dimensions desired. The Resident may direct modifications to fit site conditions.
10. Estimates of quantities are necessarily approximate. Payment will be made on actual quantities installed to the satisfaction of the Resident.
11. Quantities included for pay items measured and paid for by Lump Sum are estimate 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 estimate 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 estimate quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation.
12. Excavation required for installation of countermeasure, as shown on the plans, shall be considered incidental to related Contract Bid Items. Quantity estimate for Item 203.20 shall be for any additional miscellaneous excavation, as directed by the Resident.
13. Where stone protection exists on the banks, additional stone may be added to augment the protection, as directed by the Resident. The Resident may require removal of existing material judged unacceptable and installation of geotextile and filter material.

Date: \$date\$

Username: \$user\$

Division: \$wkggroup\$

Filename: \$file\$

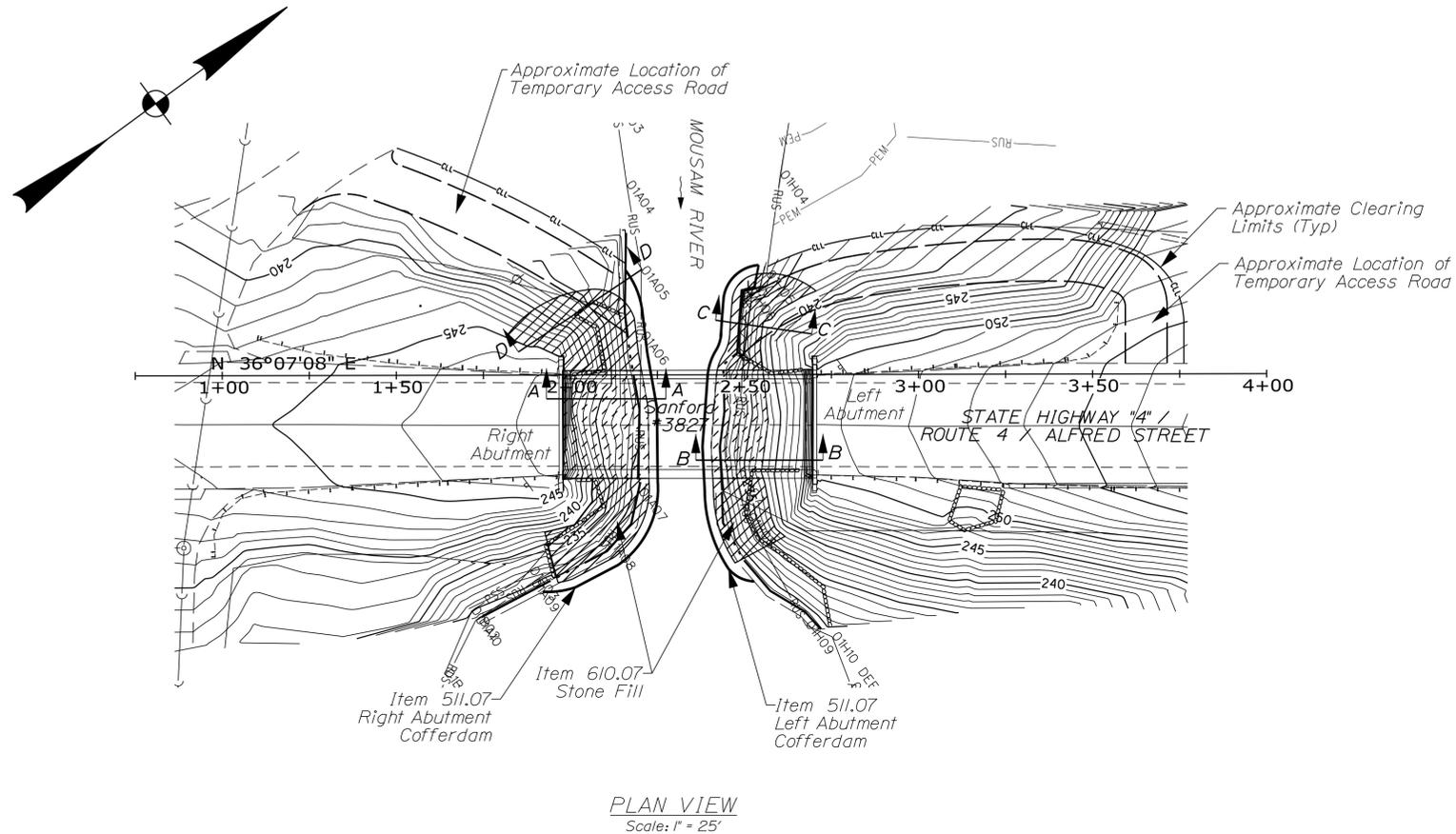
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	BRIDGE PLANS WIN 19272.00
SIGNATURE _____ P.E. NUMBER _____ DATE _____	
R. Foulkner S. Johnson B. Horne	M. Dames B. Horne
DATE 2/7/03 2/7/03	
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	
Sanford - BR 3827 SCOUR COUNTERMEASURE INSTALLATION PLAN	ESTIMATED QUANTITIES & GENERAL NOTES
SHEET NUMBER <span style="font-size: 2em;">2</span>	
OF 5	

Date: 2/25/2013

Username:

Division:

Filename: ... \003\_Bridge.dgn



Notes:

1. See Countermeasure Detail Sheet for Section A-A, B-B, C-C, and D-D.

PLAN LEGEND

- Stone Fill (Item 610.07)\*
- Proposed Stone Fill Under Bridge (Item 610.07)\*

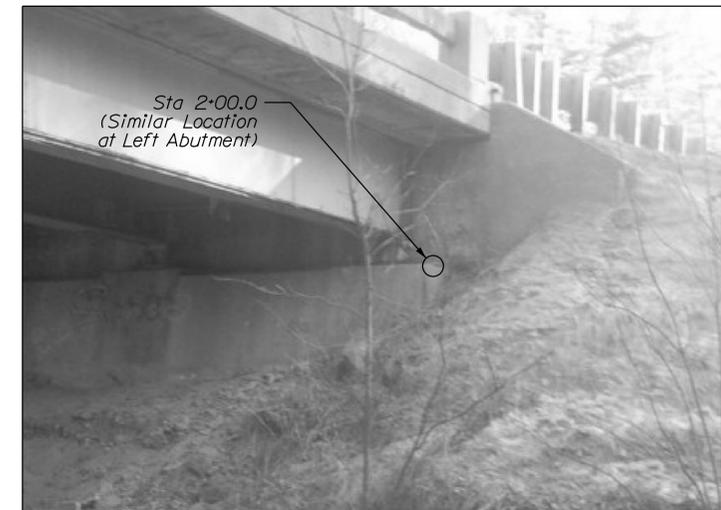
\* Average Stone Fill Thickness of 3.0ft.



DOWNSTREAM ELEVATION  
(and Left Abutment)



UPSTREAM ELEVATION  
(and Right Abutment)



RIGHT ABUTMENT (DOWNSTREAM)  
(Left Abutment Similar)

Note: Straight Alignment Based Between Stations 2+00.0 and 2+67.7. Located at Upstream Corner, Closest to Stream, of the Top of Bridge Seat as Shown in the Above Photo.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

Bridge No. 3827  
WIN  
19272.00  
BRIDGE PLANS

DESIGNED	SIGNATURE
CHECKED	P.E. NUMBER
DESIGNED	DATE
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

PROJ. MANAGER	DATE
DESIGN DETAILED	BY
CHECKED/REVIEWED	R. Faulkner
DESIGNED/REVIEWED	M. Dames
DESIGNED/REVIEWED	B. Horne
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

SANFORD BR 3827  
SCOUR COUNTERMEASURE  
INSTALLATION PLAN

**PLAN**

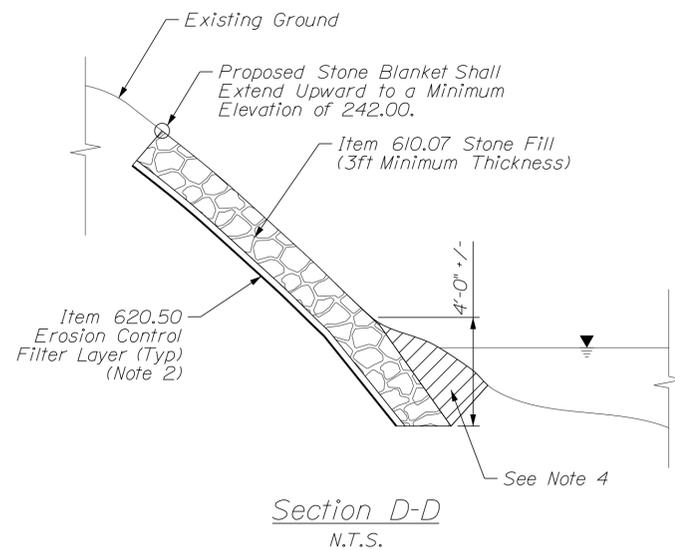
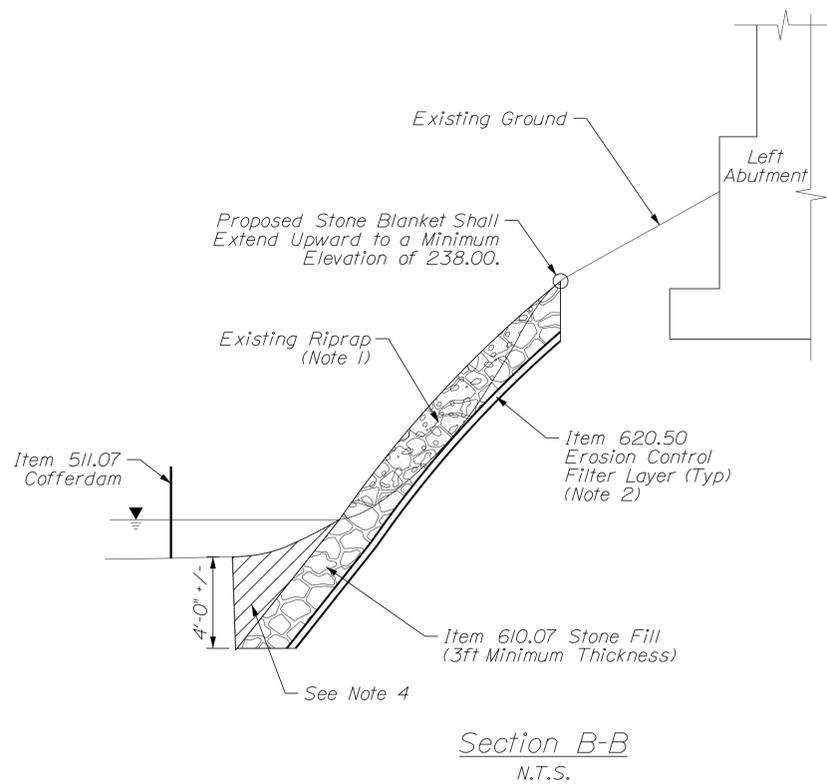
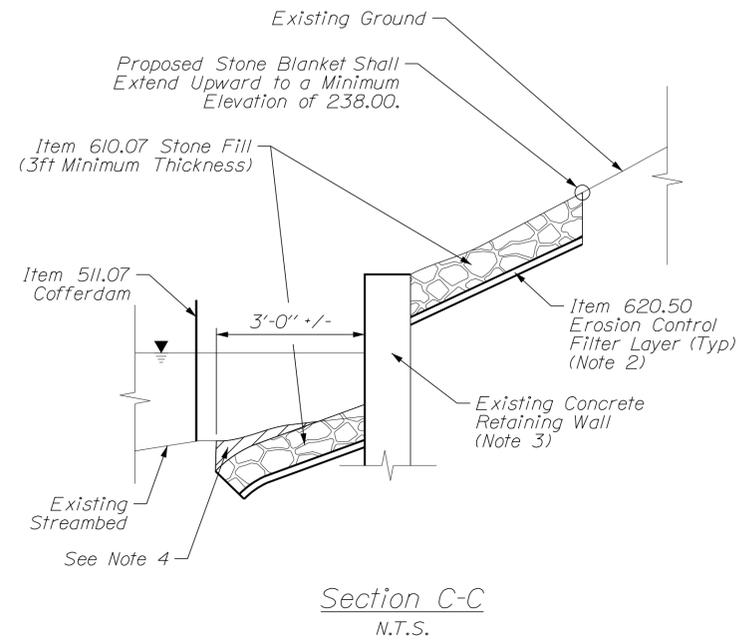
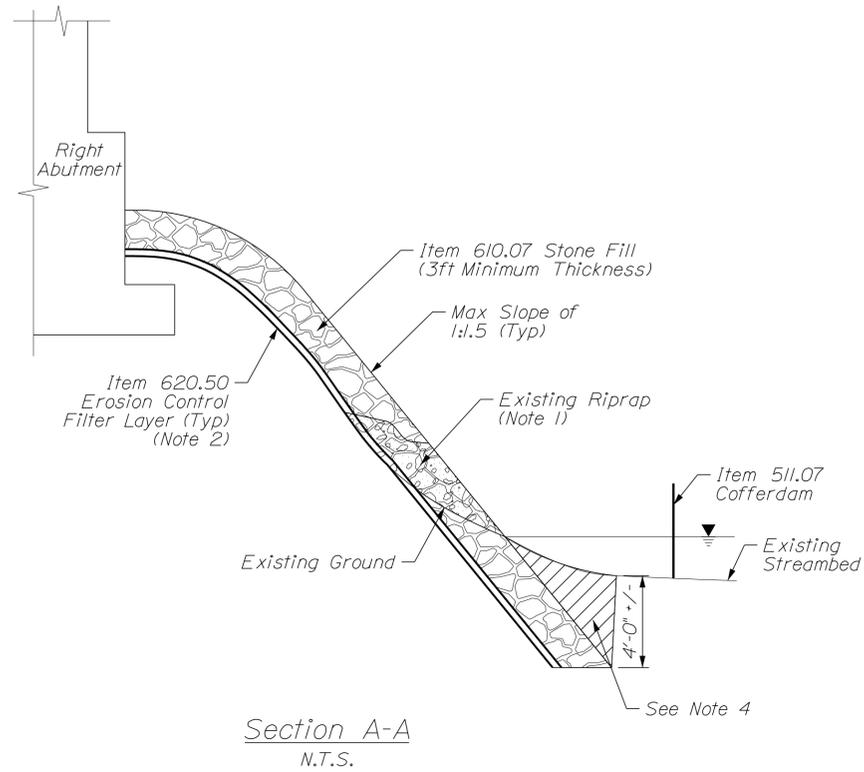
SHEET NUMBER  
**3**  
OF 5

Date: 2/25/2013

Username:

Division:

Filename: ... \Sanford -- \*3827\004\_Btyp.dgn



Notes:

- Existing Riprap May Be Added to Stone Fill Installation, as Directed by Resident.
- Protective Aggregate Cushion of Erosion Control Filter Layer Shall be 6" Thick Beneath Stone Fill.
- Depth of Footing and/or Bottom of Concrete Retaining Wall is Unknown.
- Streambed Shall be Back Filled Following Excavation and Placement of Countermeasure Material.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

DATE  
2/2/03  
BY  
M. Dames  
B. Horne

PROJ. MANAGER  
R. Faulkner  
DESIGN-DETAILED  
S. Johnson  
CHECKED-REVIEWED  
B. Horne

DESIGN-DETAILED  
REVISIONS 1  
REVISIONS 2  
REVISIONS 3  
REVISIONS 4  
FIELD CHANGES

SIGNATURE  
P.E. NUMBER  
DATE

SANFORD BR 3827  
SCOUR COUNTERMEASURE  
INSTALLATION PLAN

COUNTERMEASURE DETAILS

SHEET NUMBER

4

OF 5

BRIDGE No. 3827  
WIN  
19272.00  
BRIDGE PLANS

Date: 2/8/2013

Username: guy.ladd

Division: ROW

Filename: ... \000\ROW\MSTA005\_RWPLAN1.dgn

EXISTING RIGHT OF WAY

1) MAINE STATE HIGHWAY COMMISSION  
 RIGHT OF WAY MAP - STATE HIGHWAY '105'  
 SANFORD, YORK COUNTY  
 FEDERAL AID SECONDARY PROJ. NO. S-0105(3)  
 DATED - JANUARY 1957  
 S.H.C. FILE NO. 16-115, SHEET 1 OF 4  
 YORK COUNTY REGISTRY OF DEEDS  
 PLAN BOOK 29, PAGE 49

2) YORK COUNTY COMMISSIONERS RECORDS  
 VOLUME 17, PAGE 399 (1842)  
 3 RODS WIDE (49.5')

ITEM 1 IS BURDENED BY A SEWER EASEMENT  
 CONVEYED BY NORAH H. CHADBOURNE TO SANFORD  
 SEWERAGE DISTRICT, DATED JULY, 28, 1961 AND  
 RECORDED IN THE Y.C.R.D. DEED BOOK 1460, PAGE 298.

AS-BUILT PLAN  
 1) BRIDGE AS-BUILTS PLANS  
 POWERS BRIDGE OVER MOUSAM RIVER  
 SANFORD, YORK COUNTY  
 DATED - JANUARY 7, 1956  
 REEL 44, PLAN NO. M947

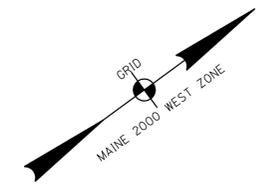
2) HIGHWAY AS-BUILT PLAN  
 STATE OF MAINE - STATE HIGHWAY COMMISSION  
 PLANS  
 SANFORD, YORK COUNTY  
 MAINE FEDERAL AID SECONDARY PROJECT NO. S-0105(3)  
 DATED - 1958  
 PLOT SET ID. NO. 3279

TAX MAP INFORMATION  
 1) TOWN OF SANFORD  
 TAX MAP - R15

**BROWNING FAMILY L.L.C.**  
 ITEM NO. (1)  
 TEMP. CONST. RIGHT = 0.09± AC. (1)  
 TOTAL AREA = 10.00± AC. (PER TAX ASSESSING RECORDS)  
 TAX MAP/LOT - R15/33

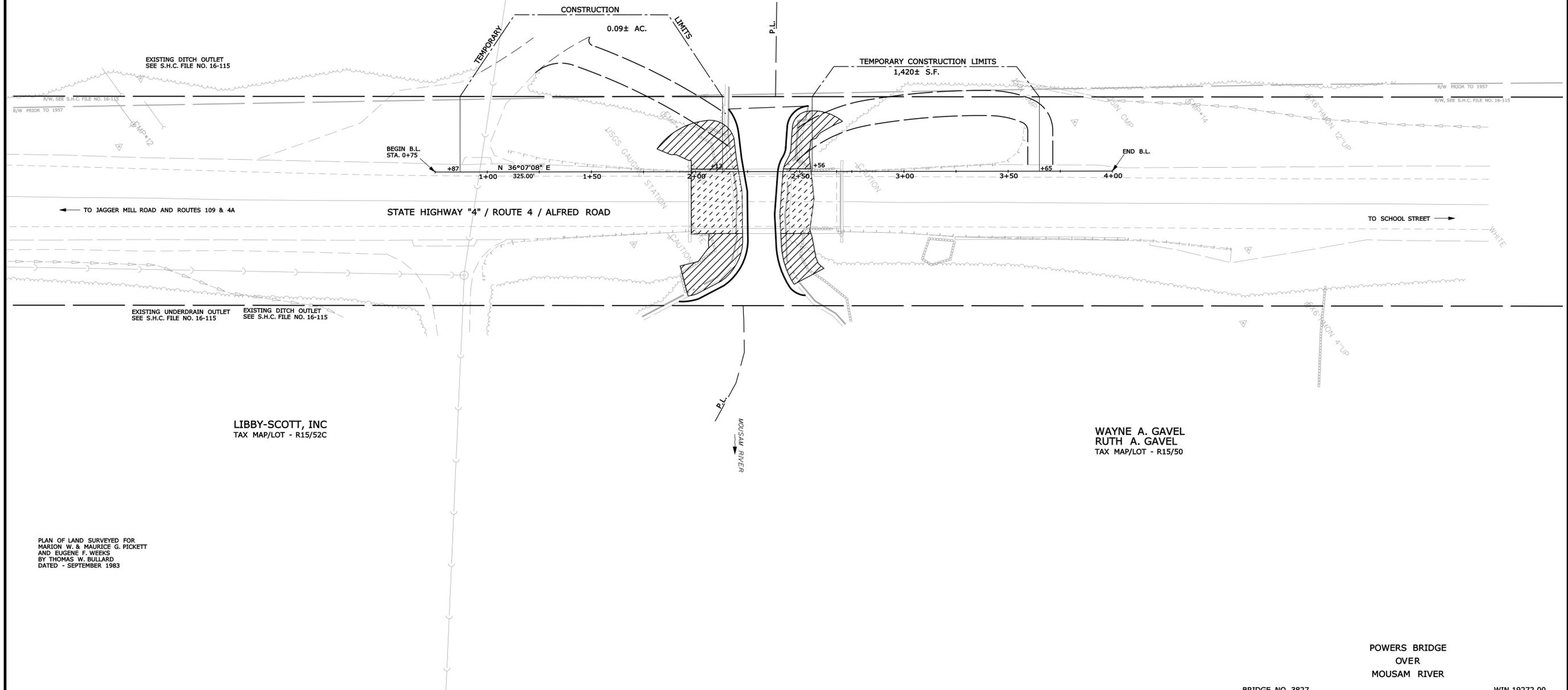
STATE OF MAINE  
 REGISTRY OF DEEDS

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



**CLAUDE MCGINLEY**  
**AUDREY ARGUIN**  
 ITEM NO. (2)  
 TEMP. CONST. RIGHT = 1,420± S.F. (1)  
 TOTAL AREA = 5.47± AC. (PER TAX ASSESSING RECORDS)  
 TAX MAP/LOT - R15/34

CONTROL INFORMATION  
 HORIZONTAL DATUM - US STATE PLANE NAD83(1996)  
 ZONE - MAINE 2000 WEST ZONE  
 VERTICAL DATUM - NAVD 88  
 COMBINED SCALE FACTOR - 0.9999784



**LIBBY-SCOTT, INC**  
 TAX MAP/LOT - R15/52C

**WAYNE A. GAVEL**  
**RUTH A. GAVEL**  
 TAX MAP/LOT - R15/50

POWERS BRIDGE  
 OVER  
 MOUSAM RIVER

BRIDGE NO. 3827 WIN 19272.00

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 ADJUTING PROPERTY OWNERS.

SYMBOLS

• IP or • PIP (IRON PIPE or PIN FOUND)	○ WELL (WELL)
□ S.T. (SEPTIC TANK)	--- GRADING LIMIT LINE
△ BM (TRAVELER POINT)	--- CONSTRUCTION LIMIT LINE
— WATER LINE	— PROPERTY LINE
— GAS LINE	— PL - LIMITS OF WRIGHT PORTION (L.O.W.P.)
— ELECTRIC LINE	— EXISTING RIGHT OF WAY
— TELEPHONE LINE	— NEW RIGHT OF WAY
— SEWER LINE	— NEW ROW WITHIN EXIST. ROW
	— CONTROL OF ACCESS

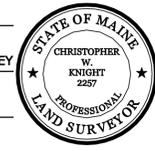
ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	G.L.L.	C.W.K.
PROP. LINES	G.L.L.	N.T.A.
AREAS	N.T.A.	G.L.L.

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

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

DAVID BERNHARDT  
 COMMISSIONER  
 KENNETH L. SWEENEY  
 CHIEF ENGINEER

DATE \_\_\_\_\_



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.

STATE HIGHWAY "4"  
 ROUTE 4/ALFRED ROAD  
 SANFORD YORK COUNTY  
 STATE PROJECT NO. 19272.00

DECEMBER 2012 RIGHT-OF-WAY MAP  
 SCALE 1" = 25' SHEET 1 OF 1

D.O.T. FILE NO. 16-488

SHEET NUMBER  
 5  
 OF 5