

Updated 05/15/2020

FEDERAL PROJECT

BIDDING INSTRUCTIONS

FOR ALL PROJECTS:

1. Use pen and ink to complete all paper Bids.
2. As a minimum, the following must be received prior to the time of Bid opening:

For a Paper Bid:

- a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items, d) two copies of the completed and signed Contract Offer, Agreement & Award form, e) a Bid Guaranty, (if required), and f) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.

For an Electronic Bid:

NOTE: Not all projects accept Electronic Bids. Please review the Notice to Contractors and see if it specifically states that Electronic Bids will be accepted.

- a) a completed Bid using Expedite® software and submitted via the Bid Express™ web-based service, b) an electronic Bid Guaranty (if required) or a faxed copy of a Bid Bond (with original to be delivered within 72 hours), and c) any other Certifications or Bid requirements listed in the Bid Documents as due by Bid opening.
3. Include prices for all items in the Schedule of Items (excluding non-selected alternates).
4. Bid Guaranty acceptable forms are:
 - a) a properly completed and signed Bid Bond on the Department's prescribed form (or on a form that does not contain any significant variations from the Department's form as determined by the Department) for 5% of the Bid Amount or
 - b) an Official Bank Check, Cashier's Check, Certified Check, U.S. Postal Money Order or Negotiable Certificate of Deposit in the amount stated in the Notice to Contractors or
 - c) an electronic bid bond submitted with an electronic bid.
5. If a paper Bid is to be sent, "FedEx First Overnight" delivery is suggested as the package is delivered directly to the DOT Headquarters Building located at 16 Child Street in Augusta. Other means, such as U.S. Postal Service's Express Mail has proven not to be reliable.

IN ADDITION, FOR FEDERAL AID PROJECTS:

6. Complete the DBE Proposed Utilization form, and submit with your bid. If you are submitting your bid electronically, you must FAX the form to (207) 624-3431. This is a curable defect.

*If you need further information regarding Bid preparation, call the DOT
Contracts Section at (207) 624-3410.*

*For complete bidding requirements, refer to Section 102 of the Maine Department
of Transportation, Standard Specifications, March 2020 Edition.*

NOTICE

The Maine Department of Transportation is attempting to improve the way Bid Amendments/Addendums are handled and allow for an electronic downloading of bid packages from our website, while continuing to maintain an optional plan holders list.

Prospective bidders, subcontractors or suppliers who wish to download a copy of the bid package and receive a courtesy notification of project specific bid amendments must fill out the on-line plan holder registration form and provide an email address to the MDOT Contracts mailbox at: MDOT.contracts@maine.gov. Each bid package will require a separate request.

Additionally, interested parties will be responsible for reviewing and retrieving the Bid Amendments from our web site, and acknowledging receipt and incorporating those Bid Amendments in their bids using the Acknowledgement of Bid Amendment Form.

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact Rebecca Snowden at rebecca.snowden@maine.gov or Diane Barnes at diane.barnes@maine.gov.

NOTICE

For security and other reasons, all Bid Packages which are mailed, shall be provided in double (one envelope inside the other) envelopes. The *Inner Envelope* shall have the following information provided on it:

Bid Enclosed - Do Not Open

PIN:

Town:

Date of Bid Opening:

Name of Contractor with mailing address and telephone number:

In Addition to the usual address information, the *Outer Envelope* should have written or typed on it:

Double Envelope: Bid Enclosed

PIN:

Town:

Date of Bid Opening:

Name of Contractor:

This should not be much of a change for those of you who use Federal Express or similar services.

Hand-carried Bids may be in one envelope as before, and should be marked with the following information:

Bid Enclosed: Do Not Open

PIN:

Town:

Name of Contractor:

October 16, 2001

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Bid Guaranty-Bid Bond Form

KNOW ALL MEN BY THESE PRESENTS THAT _____

_____, of the City/Town of _____ and State of _____

as Principal, and _____ as Surety, a

Corporation duly organized under the laws of the State of _____ and having a usual place of

Business in _____ and hereby held and firmly bound unto the Treasurer of

the State of Maine in the sum of _____ for payment which Principal and Surety bind

themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The condition of this obligation is that the Principal has submitted to the Maine Department of

Transportation, hereafter Department, a certain bid, attached hereto and incorporated as a

part herein, to enter into a written contract for the construction of _____

_____ and if the Department shall accept said bid

and the Principal shall execute and deliver a contract in the form attached hereto (properly

completed in accordance with said bid) and shall furnish bonds for this faithful performance of

said contract, and for the payment of all persons performing labor or furnishing material in

connection therewith, and shall in all other respects perform the agreement created by the

acceptance of said bid, then this obligation shall be null and void; otherwise it shall remain in full

force, and effect.

Signed and sealed this _____ day of _____ 20_____

WITNESS:

WITNESS

PRINCIPAL:

By _____

By: _____

By: _____

SURETY:

By _____

By: _____

Name of Local Agency: _____

NOTICE

Bidders:

Please use the attached “Request for Information” form when submitting questions concerning specific Contracts that have been advertised for Bid, include additional numbered pages as required. RFI’s may be faxed to 207-624-3431, submitted electronically through the Departments web page of advertised projects by selecting the RFI tab on the project details page or via e-mail to RFI-Contracts.MDOT@maine.gov.

These are the only allowable mechanisms for answering Project specific questions. Maine DOT will not be bound to any answers to Project specific questions received during the Bidding phase through other processes.

When submitting RFIs by Email please follow the same guidelines as stated on the “Request for Information” form and include the word “RFI” along with the Project name and Identification number in the subject line.

NOTICE

Disadvantaged Business Enterprise Proposed Utilization

The Apparent Low Bidder shall submit the Disadvantaged Business Enterprise Proposed Utilization form with their bid. This is a curable bid defect.

The Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan form contains additional information that is required by USDOT.

The Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan form should be used.

A copy of the new Contractor's Disadvantaged Business Enterprise Proposed Utilization Plan and instructions for completing it are attached.

Note: Questions about DBE firms, or to obtain a printed copy of the DBE Directory, contact The Office of Civil Rights at (207) 624-3066.

MDOT's DBE Directory of Certified firms can also be obtained at <https://www.maine.gov/mdot/civilrights/dbe/>

INSTRUCTIONS FOR PREPARING THE MaineDOT CONTRACTOR'S DBE/SUBCONTRACTOR UTILIZATION FORM

The Contractor Shall Extend equal opportunity to MaineDOT certified DBE firms (as listed in MaineDOT's DBE Directory of Certified Businesses) in the selection and utilization of Subcontractors and Suppliers.

SPECIFIC INSTRUCTIONS FOR COMPLETING THE FORM:

Insert Contractor name, the name of the person(s) preparing the form, and that person(s) telephone, fax number and e-mail address.

Calculate and provide percentage of your bid that will be allocated to DBE firms, Federal Project Identification Number, and location of the Project work.

In the columns, name each subcontractor, DBE and non-DBE firm to be used, provide the Unit/Item cost of the work/product to be provided by the subcontractor, give a brief description and the dollar value of the work.

Revised 1/12

DBE GOAL NOTICE FFY 2019-2021
Maine Department of Transportation
Disadvantaged Business Enterprise Program

Notice is hereby given that in accordance with US DOT regulation 49 CFR Part 26, the Maine Department of Transportation (MaineDOT) has established a Disadvantaged Business Enterprise Program (DBE) for disadvantaged business participation in the federal-aid highway and bridge construction programs; MaineDOT contracts covered by the program include consulting, construction, supplies, manufacturing, and service contracts.

For FFY 2019-21 (October 1, 2018 through September 30, 2021) MaineDOT has established an annual DBE participation goal of **2.4%** to be achieved through race/gender neutral means. This goal has been approved by the Federal Highway Administration and remains in effect through September 30, 2021. Maine DOT must meet this goal each federal fiscal year. If the goal is not met, MaineDOT must provide a justification for not meeting the goal and provide a plan to ensure the goal is met, which may include placing contract goals on certain projects that contractors will be required to meet.

MaineDOT asks all contractors, consultants and subcontractors to seek certified DBE firms for projects and to work to meet the determined 2.4% goal without the need to impose contract goals. DBE firms are listed on the MaineDOT website at:

<https://www.maine.gov/mdot/civilrights/docs/dbe/WeeklyDBEVendorList.pdf>

Interested parties may view MaineDOT's DBE goal setting methodology, also posted on this website. If you have questions regarding this goal or the DBE program you may contact Sherry Tompkins at the Maine Department of Transportation, Civil Rights Office by telephone at (207) 624-3066 or by e-mail at: sherry.tompkins@maine.gov

**MaineDOT CONTRACTOR'S DBE/SUBCONTRACTOR
PROPOSED UTILIZATION FORM**

All Bidders must furnish this form with their bid on Bid Opening day

Contractor: _____ Telephone: _____ Ext _____

Contact Person: _____ Fax: _____

E-mail: _____

BID DATE: _____

FEDERAL PROJECT PIN # _____ PROJECT LOCATION: _____

TOTAL ANTICIPATED DBE _____% PARTICIPATION FOR THIS CONTRACT

W B E	D B E	Non DBE	Firm Name	Item Number & Description of Work	Quantity	Cost Per Unit/Item	Anticipated \$ Value
Subcontractor Total >							
DBE Total >							

NOTE: THIS INFORMATION IS USED TO TRACK AND REPORT ANTICIPATED DBE PARTICIPATION IN ALL FEDERALLY FUNDED MAINE DOT CONTRACTS. THE ANTICIPATED DBE AMOUNT IS VOLUNTARY AND WILL NOT BECOME A PART OF THE CONTRACTUAL TERMS.

Equal Opportunity Use:

Form received: ___/___/___ Verified by: _____

FHWA FTA FAA

**For a complete list of certified firms and company designation (WBE/DBE) go to
<http://www.maine.gov/mdot/civilrights/>**

Maine Department of Transportation Civil Rights Office

Directory of Certified Disadvantaged Business Enterprises

Listing can be found at:

<https://www.maine.gov/mdot/civilrights/dbe/>

For additional information and guidance contact:

Civil Rights Office at (207) 624-3066

It is the responsibility of the Contractor to access the DBE Directory at this site in order to have the most current listing.

Vendor Registration

Prospective Bidders must register as a vendor with the Department of Administrative & Financial Services if the vendor is awarded a contract. Vendors will not be able to receive payment without first being registered. Vendors/Contractors will find information and register through the following link –

<http://www.maine.gov/purchases/venbid/index.shtml>

**STATE OF MAINE DEPARTMENT OF TRANSPORTATION
NOTICE TO CONTRACTORS**

Sealed Bids addressed to the Maine Department of Transportation, Augusta, Maine 04333 and endorsed on the wrapper "Bids for Pleasant River Bridge Replacement in the town of MILO" will be received from contractors at the Reception Desk, MaineDOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on September 30, 2020 and at that time and place, publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a bridge, or project specific prequalification to be considered for the award of this contract. **We now accept electronic bids for bid packages posted on the bidx.com website. Electronic bids do not have to be accompanied by paper bids. Please note: The Department will accept a facsimile of the bid bond; however, the original bid bond must then be received at the MDOT Contract Section within 72 hours of the bid opening. Until further notice, dual bids (one paper, one electronic) will be accepted, with the paper copy taking precedence.**

Description: Maine Federal Aid Project No. 2262701 WIN 022627.01

Location: In Piscataquis County, Pleasant River bridge is located on Pleasant Street over the Pleasant River approximately 1.2 miles north easterly of Route 11 junction.

Scope of Work: Pleasant River bridge replacement, Lakeview road, and North road/ Medford road realignment plus other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, drawings, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Project Manager Andrew Lathe** at (207) 624-3431, use electronic RFI form or email questions to RFI-Contracts.MDOT@maine.gov, project name and identification number should be in the subject line. Questions received after 12:00 noon of Monday (or if that Monday is a state holiday, Friday) prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. TTY users call Maine Relay 711.

Plans, specifications and bid forms may be seen at the MaineDOT Building in Augusta, Maine, and at the Department of Transportation's Regional Office in Bangor. They may be purchased from the Department between the hours of 8:00 a.m. to 4:30 p.m. by cash, credit card (Visa/Mastercard) or check payable to Treasurer, State of Maine sent to Maine Department of Transportation, Attn.: Mailroom, 16 State House Station, Augusta, Maine 04333-0016. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Full size plans \$91.00 (\$97.00 by mail). Half size plans \$45.50 (\$49.00 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

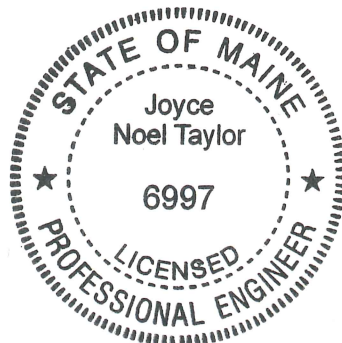
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$210,000.00 payable to Treasurer, State of Maine as a Bid guarantee. A Contract Performance Surety Bond and a Contract Payment Surety Bond, each in the amount of 100 percent of the Contract price, will be required of the successful Bidder.

This Contract is subject to all applicable Federal Laws. This contract is subject to compliance with the Disadvantaged Business Enterprise program requirements as set forth by the Maine Department of Transportation.

All work shall be governed by *State of Maine, Department of Transportation, Standard Specifications, March 2020 Edition*, price \$10 [\$15 by mail], and *Standard Details, March 2020 Edition*, price \$10 [\$15 by mail]. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. *Standard Detail* updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

The right is hereby reserved to the MaineDOT to reject any or all bids.

Augusta, Maine
September 9, 2020



A handwritten signature in blue ink that reads "Joyce Noel Taylor".

JOYCE NOEL TAYLOR P. E.
CHIEF ENGINEER

**SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS**

With this form, the Bidder acknowledges its responsibility to check for all Amendments to the Bid Package. For each Project under Advertisement, Amendments are located at <http://www.maine.gov/mdot/contractors/> . It is the responsibility of the Bidder to determine if there are Amendments to the Project, to download them, to incorporate them into their Bid Package, and to reference the Amendment number and the date on the form below. The Maine DOT will not post Bid Amendments any later than noon the day before Bid opening without individually notifying all the planholders.

Amendment Number	Date

The Contractor, for itself, its successors and assigns, hereby acknowledges that it has received all of the above referenced Amendments to the Bid Package.

CONTRACTOR

Date

Signature of authorized representative

(Name and Title Printed)

NOTICE

(COVID-19 Pandemic)

The Department considers the COVID-19 Pandemic an Uncontrollable Event as defined in Section 101.2 of the Department's Standard Specifications.

Accordingly, any documented delay to the project's Critical Path due to COVID-19 related issues, such as impacted workforce, subcontracts, or material supply, will be considered an Excusable Delay as defined in Section 109.5(A)(3) of the Department's Supplemental Specifications.

As an Excusable Delay, the Contractor is entitled to an extension of time provided that other associated notification, documentation, and procedural requirements set forth in the Contract are met.

8/25/2020

Maine Department of Transportation

Proposal Schedule of Items

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Proposal ID: 022627.01

Project(s): 022627.01

SECTION: 1 PROJECT ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	201.11 CLEARING	1.500 AC	_____	 _____	_____	 _____
0020	202.19 REMOVING EXISTING BRIDGE	LUMP SUM	LUMP SUM		_____	 _____
0030	202.202 REMOVING PAVEMENT SURFACE	330.000 SY	_____	 _____	_____	 _____
0040	203.20 COMMON EXCAVATION	2,700.000 CY	_____	 _____	_____	 _____
0050	203.24 COMMON BORROW	3,200.000 CY	_____	 _____	_____	 _____
0060	203.25 GRANULAR BORROW	12,600.000 CY	_____	 _____	_____	 _____
0070	203.4340 ELASTIC INCLUSION	130.000 SY	_____	 _____	_____	 _____
0080	206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	530.000 CY	_____	 _____	_____	 _____
0090	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	4,800.000 CY	_____	 _____	_____	 _____
0100	403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE	650.000 T	_____	 _____	_____	 _____
0110	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	4.000 T	_____	 _____	_____	 _____
0120	403.211 HOT MIX ASPHALT (SHIMMING)	10.000 T	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

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Project(s): 022627.01

SECTION: 1 PROJECT ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0130	403.213 HOT MIX ASPHALT 12.5 MM BASE	1,050.000 T	_____	 _____	_____	 _____
0140	409.15 BITUMINOUS TACK COAT - APPLIED	250.000 G	_____	 _____	_____	 _____
0150	461.131 TEMPORARY PAVEMENT	27.000 T	_____	 _____	_____	 _____
0160	501.237 NOISE ATTENUATION AND UNDERWATER NOISE MONITORING	LUMP SUM		 LUMP SUM	_____	 _____
0170	501.239 DYNAMIC LOADING TESTS - PROVIDING FOR	3.000 EA	_____	 _____	_____	 _____
0180	501.54 STEEL H-BEAM PILES 117 LBS/FT, DELIVERED	4,610.000 LF	_____	 _____	_____	 _____
0190	501.541 STEEL H-BEAM PILES 117 LBS/FT, IN PLACE	4,610.000 LF	_____	 _____	_____	 _____
0200	501.821 TEMPORARY CASING FOR PILES	LUMP SUM		 LUMP SUM	_____	 _____
0210	501.90 PILE TIPS	36.000 EA	_____	 _____	_____	 _____
0220	501.91 PILE SPLICES	102.000 EA	_____	 _____	_____	 _____
0230	501.92 PILE DRIVING EQUIPMENT MOBILIZATION	LUMP SUM		 LUMP SUM	_____	 _____
0240	502.219 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	LUMP SUM		 LUMP SUM	_____	 _____

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Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0250	502.239 STRUCTURAL CONCRETE PIERS	LUMP SUM	LUMP	SUM	_____	_____
0260	502.24 STRUCTURAL CONCRETE PIERS (PLACED UNDER WATER)	300.000 CY	_____	_____	_____	_____
0270	502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	LUMP SUM	LUMP	SUM	_____	_____
0280	502.291 SAW CUT GROOVING	LUMP SUM	LUMP	SUM	_____	_____
0290	502.31 STRUCTURAL CONCRETE APPROACH SLABS	LUMP SUM	LUMP	SUM	_____	_____
0300	502.49 STRUCTURAL CONCRETE CURBS AND SIDEWALKS	LUMP SUM	LUMP	SUM	_____	_____
0310	502.77 FIBER REINFORCED POLYMER BRIDGE DRAIN - TYPE: E	2.000 EA	_____	_____	_____	_____
0320	503.12 REINFORCING STEEL, FABRICATED AND DELIVERED	83,000.000 LB	_____	_____	_____	_____
0330	503.13 REINFORCING STEEL, PLACING	83,000.000 LB	_____	_____	_____	_____
0340	503.26 STAINLESS STEEL REINFORCEMENT - FABRICATED & DELIVERED	31,000.000 LB	_____	_____	_____	_____
0350	503.27 STAINLESS STEEL REINFORCEMENT - PLACING	31,000.000 LB	_____	_____	_____	_____

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Project(s): 022627.01

SECTION: 1 PROJECT ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0360	504.702 STRUCTURAL STEEL FABRICATED AND DELIVERED, WELDED	LUMP SUM	LUMP	SUM	_____	_____
0370	504.71 STRUCTURAL STEEL ERECTION	LUMP SUM	LUMP	SUM	_____	_____
0380	505.08 SHEAR CONNECTORS	LUMP SUM	LUMP	SUM	_____	_____
0390	507.0821 STEEL BRIDGE RAILING, 3 BAR	LUMP SUM	LUMP	SUM	_____	_____
0400	511.07 COFFERDAM: ABUT NO.1	LUMP SUM	LUMP	SUM	_____	_____
0410	511.07 COFFERDAM: ABUT NO.2	LUMP SUM	LUMP	SUM	_____	_____
0420	511.07 COFFERDAM: PIER NO.1	LUMP SUM	LUMP	SUM	_____	_____
0430	512.081 FRENCH DRAINS	LUMP SUM	LUMP	SUM	_____	_____
0440	515.21 PROTECTIVE COATING FOR CONCRETE SURFACES	LUMP SUM	LUMP	SUM	_____	_____
0450	519.60 EXPANSION DEVICE - ASPHALTIC PLUG JOINT	75.000 LF	_____	_____	_____	_____
0460	523.52 BEARING INSTALLATION	5.000 EA	_____	_____	_____	_____
0470	523.5401 LAMINATED ELASTOMERIC BEARINGS, FIXED	5.000 EA	_____	_____	_____	_____

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Project(s): 022627.01

SECTION: 1 PROJECT ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0480	526.301 TEMPORARY CONCRETE BARRIER TYPE I	LUMP SUM				
0490	530.30 GFRP, REINFORCEMENT BARS, FABRICATED & DELIVERED	92,270.000 LF				
0500	530.31 GFRP, REINFORCEMENT BARS, PLACING	92,270.000 LF				
0510	603.16 15 INCH CULVERT PIPE OPTION I	68.000 LF				
0520	603.219 36 INCH CULVERT PIPE OPTION III	76.000 LF				
0530	606.1301 31" W-BM GR, MID-WAY SPLICE-SGL FACED	350.000 LF				
0540	606.1303 31" W-BM GR, MID-WAY SPLICE-15' RAD AND LESS	13.000 LF				
0550	606.1304 31" W-BM GR, MID-WAY SPLICE-OVER 15' RAD	50.000 LF				
0560	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	6.000 EA				
0570	606.1721 BRIDGE TRANSITION - TYPE 1	4.000 EA				
0580	606.259 ANCHORAGE ASSEMBLY	1.000 EA				

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SECTION: 1 PROJECT ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0590	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	15.000 EA	_____	 _____	_____	 _____
0600	606.78 LOW VOLUME GUARDRAIL END	1.000 EA	_____	 _____	_____	 _____
0610	610.08 PLAIN RIPRAP	23.000 CY	_____	 _____	_____	 _____
0620	610.16 HEAVY RIPRAP	2,800.000 CY	_____	 _____	_____	 _____
0630	610.18 STONE DITCH PROTECTION	36.000 CY	_____	 _____	_____	 _____
0640	613.319 EROSION CONTROL BLANKET	1,250.000 SY	_____	 _____	_____	 _____
0650	615.07 LOAM	620.000 CY	_____	 _____	_____	 _____
0660	618.14 SEEDING METHOD NUMBER 2	100.000 UN	_____	 _____	_____	 _____
0670	619.12 MULCH	100.000 UN	_____	 _____	_____	 _____
0680	619.14 EROSION CONTROL MIX	1,240.000 CY	_____	 _____	_____	 _____
0690	620.58 EROSION CONTROL GEOTEXTILE	2,290.000 SY	_____	 _____	_____	 _____
0700	620.66 DRAINAGE GEOCOMPOSITE	140.000 SY	_____	 _____	_____	 _____
0710	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	6,900.000 LF	_____	 _____	_____	 _____

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Project(s): 022627.01

SECTION: 1 PROJECT ITEMS

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0720	629.05 HAND LABOR, STRAIGHT TIME	20.000 HR	_____	 _____	_____	 _____
0730	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____
0740	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	20.000 HR	_____	 _____	_____	 _____
0750	639.18 FIELD OFFICE TYPE A	1.000 EA	_____	 _____	_____	 _____
0760	652.312 TYPE III BARRICADE	4.000 EA	_____	 _____	_____	 _____
0770	652.33 DRUM	46.000 EA	_____	 _____	_____	 _____
0780	652.34 CONE	46.000 EA	_____	 _____	_____	 _____
0790	652.35 CONSTRUCTION SIGNS	330.000 SF	_____	 _____	_____	 _____
0800	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP SUM		 LUMP SUM	_____	 _____
0810	652.38 FLAGGER	500.000 HR	_____	 _____	_____	 _____
0820	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		 LUMP SUM	_____	 _____
0830	659.10 MOBILIZATION	LUMP SUM		 LUMP SUM	_____	 _____

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Section: 1

Total:

_____!

Total Bid:

_____!

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN **022627.01** for the **Pleasant River Bridge Replacement** in the town of **Milo**, County of **Piscataquis**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **June 30, 2023**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation Standard Specifications, April 2020 Edition* and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$_____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, *Standard Specifications, April 2020 Edition, Standard Details April 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, *Standard Specifications April 2020 Edition*, *Standard Details April 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN 022627.01, Pleasant River Bridge replacement plus other incidental work**, State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items.”

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the *Standard Specifications, April 2020 Edition*, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the *Standard Specifications April 2020 Edition* and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Bruce A. Van Note, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. **The Work.**

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN **022627.01** for the **Pleasant River Bridge Replacement** in the town of **Milo**, County of **Piscataquis**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. **Time.**

The Contractor agrees to complete all Work, except warranty work, on or before **June 30, 2023**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation Standard Specifications, April 2020 Edition* and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$_____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, *Standard Specifications, April 2020 Edition, Standard Details April 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, *Standard Specifications April 2020 Edition*, *Standard Details April 2020 Edition* as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: **WIN 022627.01, Pleasant River Bridge replacement plus other incidental work**, State of Maine, on which bids will be received until the time specified in the “Notice to Contractors” do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached “Schedule of Items.”

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items,” which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the *Standard Specifications, April 2020 Edition*, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the *Standard Specifications April 2020 Edition* and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Bruce A. Van Note, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and (Name of the firm bidding the job) a corporation or other legal entity organized under the laws of the State of Maine, with its principal place of business located at (address of the firm bidding the job)

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, PIN No.0112345.00, for the **Hot Mix Asphalt Overlay** in the town/city of **South Nowhere**, County of **Washington**, Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before **November 15, 2006**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the *State of Maine Department of Transportation Standard Specifications, March 2020 Edition* and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is (Place bid here in alphabetical form such as One Hundred and Two dollars and 10 cents)
\$ (repeat bid here in numerical terms, such as \$102.10) Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, *Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition*, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the *Standard Specifications March 2020 Edition* (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, *Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition*, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 012345.00 South Nowhere, Hot Mix Asphalt Overlay

State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items."

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached "Schedule of Items" in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items," which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the *Standard Specifications, March 2020 Edition*, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the *Standard Specifications March 2020 Edition* and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor's Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

Date

(Witness Sign Here)
Witness

(Sign Here)
(Signature of Legally Authorized Representative of the Contractor)

(Print Name Here)
(Name and Title Printed)

CONTRACTOR

G. Award.

Your offer is hereby accepted.
documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: Bruce A. Van Note, Commissioner

(Witness)

BOND # _____

CONTRACT PERFORMANCE BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ in the State of _____, as principal,
and.....
a corporation duly organized under the laws of the State of and having a
usual place of business
as Surety, are held and firmly bound unto the Treasurer of the State of Maine in the sum
of _____ and 00/100 Dollars (\$ _____),
to be paid said Treasurer of the State of Maine or his successors in office, for which
payment well and truly to be made, Principal and Surety bind themselves, their heirs,
executors and administrators, successors and assigns, jointly and severally by these
presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number _____ in the Municipality of
_____ promptly and faithfully performs the Contract, then this
obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the State
of Maine.

Signed and sealed this day of, 20.....

WITNESSES:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....
.....
.....

ADDRESS
.....
.....

TELEPHONE.....

.....

BOND # _____

CONTRACT PAYMENT BOND
(Surety Company Form)

KNOW ALL MEN BY THESE PRESENTS: That _____
_____ **in the State of** _____, as principal,
and.....
a corporation duly organized under the laws of the State of and having a
usual place of business in
as Surety, are held and firmly bound unto the Treasurer of the State of Maine for the use
and benefit of claimants as herein below defined, in the sum of
_____ **and 00/100 Dollars (\$** _____ **)**
for the payment whereof Principal and Surety bind themselves, their heirs, executors and
administrators, successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that if the Principal designated as Contractor in
the Contract to construct Project Number _____ in the Municipality of
_____ promptly satisfies all claims and demands incurred for all
labor and material, used or required by him in connection with the work contemplated by
said Contract, and fully reimburses the obligee for all outlay and expense which the
obligee may incur in making good any default of said Principal, then this obligation shall
be null and void; otherwise it shall remain in full force and effect.

A claimant is defined as one having a direct contract with the Principal or with a
Subcontractor of the Principal for labor, material or both, used or reasonably required for
use in the performance of the contract.

Signed and sealed this day of, 20

WITNESS:

SIGNATURES:

CONTRACTOR:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY:

Signature.....

.....

Print Name Legibly

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

.....

ADDRESS

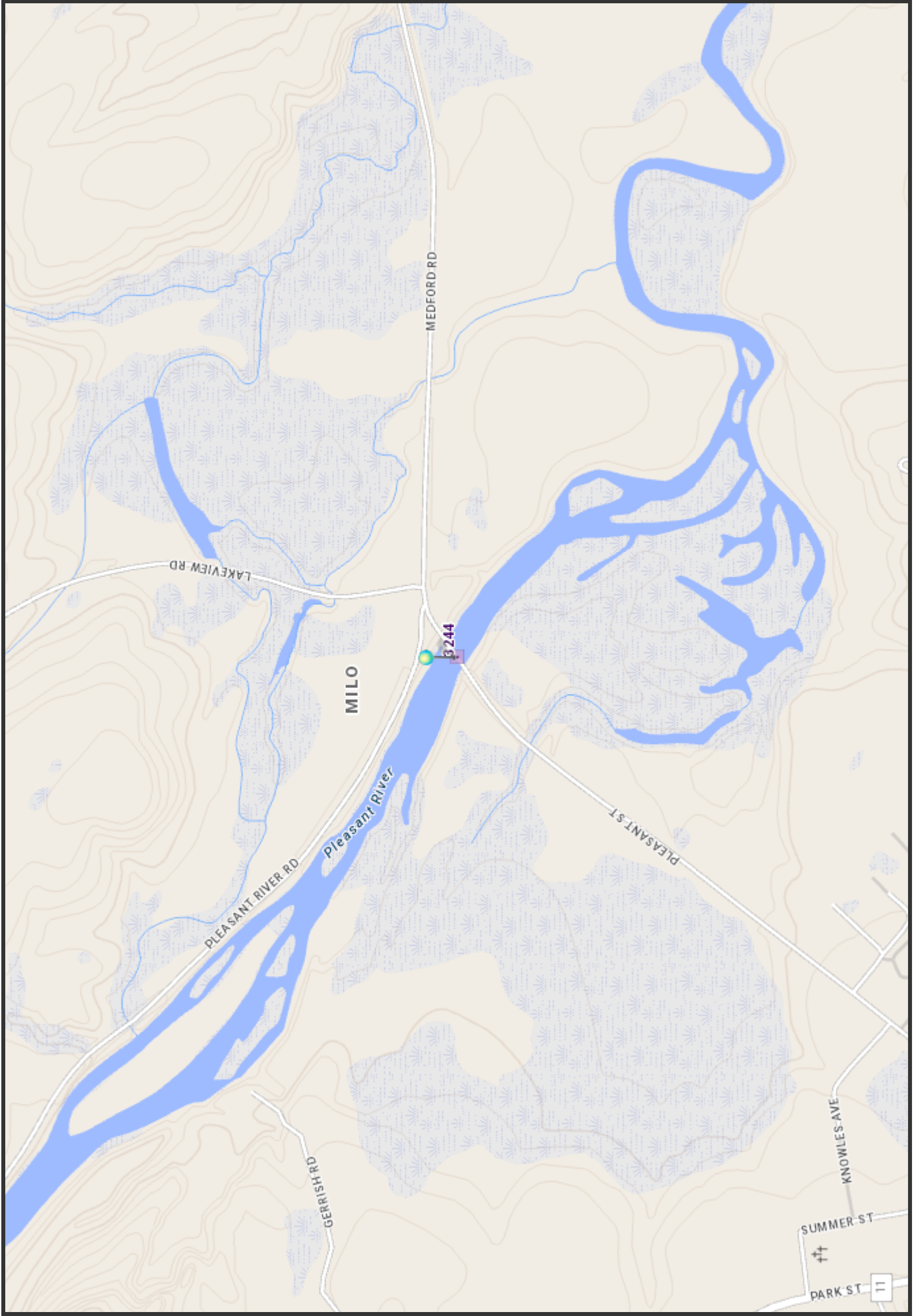
.....

.....

TELEPHONE

.....

BRIDGE NO. 3244



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

0.3 Miles
1 inch = 0.24 miles

Date: 8/25/2020
Time: 9:37:00 AM

"General Decision Number: ME20200041 05/08/2020

Superseded General Decision Number: ME20190041

State: Maine

Construction Type: Highway

County: Piscataquis County in Maine.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	04/17/2020
2	05/08/2020

* ENGI0004-005 04/01/2018

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Grader/Blade, Milling Machine, Paver (Asphalt, Aggregate, and Concrete), Roller Asphalt.....	\$ 22.61	12.50

SUME2014-036 06/23/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 18.34	2.84
HIGHWAY/PARKING LOT STRIPING:		
Laborer.....	\$ 15.81	3.24
IRONWORKER, REINFORCING.....	\$ 16.27	0.00
LABORER: Asphalt, Includes Raker, Shovel, Spreader and Distributor.....		
	\$ 14.32	3.17
LABORER: Common or General.....	\$ 13.46	1.38
LABORER: Wheelman.....	\$ 15.40	3.01

OPERATOR:

Backhoe/Excavator/Trackhoe. \$ 15. 18 3. 07

OPERATOR: Bobcat/Ski d

Steer/Ski d Loader. \$ 20. 36 5. 06

OPERATOR: Broom/Sweeper. \$ 16. 75 6. 47

OPERATOR: Bul l dozer. \$ 16. 58 2. 89

OPERATOR: Loader. \$ 17. 18 4. 72

OPERATOR: Mechani c. \$ 22. 30 8. 71

OPERATOR: Screed. \$ 18. 82 4. 75

OPERATOR: Rol l er (Earth). \$ 15. 81 1. 72

TRAFFIC CONTROL: Fl agger. \$ 9. 00 0. 00

TRAFFIC CONTROL:

Laborer- Cones/

Barri cades/Barrel s -

Setter/Mover/Sweeper. \$ 17. 48 5. 37

TRUCK DRIVER: Dump Truck. \$ 14. 35 6. 33

TRUCK DRIVER: TackTruck. \$ 18. 82 8. 29

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave

for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the E0, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the E0 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUMD198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests

for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

**Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, DC 20210**

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

State of Maine
 Department of Labor
 Bureau of Labor Standards
 Augusta, Maine 04333-0045
 Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRS §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid to laborers and workers employed on the below titled project.

**2020 Fair Minimum Wage Rates
 Heavy & Bridge Piscataquis County**

Occupation Title	Minimum	Minimum	Total	Occupation Title	Minimum	Minimum	Total
	Wage	Benefit			Wage	Benefit	
Asphalt Raker	\$16.00	\$0.00	\$16.00	Laborers (Helpers & Tenders)	\$18.00	\$3.33	\$21.33
Backhoe Loader Operator	\$26.00	\$8.61	\$34.61	Laborer - Skilled	\$20.00	\$4.10	\$24.10
Boom Truck (Truck Crane) Operator	\$28.13	\$6.39	\$34.52	Line Erector Power/Cable Splicer	\$35.00	\$0.75	\$35.75
Bricklayer	\$24.50	\$4.47	\$28.97	Loader Operator - Front-End	\$21.25	\$0.54	\$21.79
Bulldozer Operator	\$22.00	\$4.70	\$26.70	Mechanic- Maintenance	\$19.25	\$3.63	\$22.88
Carpenter	\$26.00	\$5.68	\$31.68	Mechanic- Refrigeration	\$27.00	\$4.21	\$31.21
Carpenter - Rough	\$21.07	\$3.53	\$24.60	Millwright	\$31.40	\$6.89	\$38.29
Cement Mason/Finisher	\$16.88	\$0.52	\$17.40	Painter	\$26.50	\$5.53	\$32.03
Communication Equip Installer	\$25.00	\$0.87	\$25.87	Pipe/Steam/Sprinkler Fitter	\$29.09	\$17.36	\$46.45
Comm Trans Microwave & Cell	\$22.00	\$1.47	\$23.47	Pipelayer	\$28.00	\$6.76	\$34.76
Crane Operator =>15 Tons)	\$32.50	\$7.54	\$40.04	Plumber (Licensed)	\$26.00	\$4.50	\$30.50
Diver	\$24.00	\$3.12	\$27.12	Plumber Helper/Trainee	\$19.00	\$2.98	\$21.98
Earth Auger Operator	\$26.65	\$6.12	\$32.77	Propane/Natural Gas Serv/Install	\$32.00	\$9.23	\$41.23
Electrician - Licensed	\$32.61	\$8.06	\$40.67	Rigger	\$23.00	\$7.10	\$30.10
Electrician Helper/Cable Puller	\$19.00	\$5.10	\$24.10	Roller Operator - Earth	\$16.43	\$2.69	\$19.12
Excavator Operator	\$24.50	\$3.18	\$27.68	Roller Operator - Pavement	\$20.25	\$3.56	\$23.81
Fence Setter	\$18.00	\$1.30	\$19.30	Screed/Wheelman	\$18.50	\$2.45	\$20.95
Flagger	\$13.00	\$0.00	\$13.00	Sheet Metal Worker	\$26.56	\$6.03	\$32.59
Grader/Scraper Operator	\$22.00	\$2.16	\$24.16	Truck Driver - Light	\$16.00	\$0.44	\$16.44
Industrial Truck (Forklift) Operator	\$29.07	\$6.63	\$35.70	Truck Driver - Medium	\$19.00	\$1.97	\$20.97
Ironworker - Ornamental	\$22.30	\$22.37	\$44.67	Truck Driver - Heavy	\$18.86	\$1.16	\$20.02
Ironworker - Reinforcing	\$29.45	\$6.47	\$35.92	Truck Driver - Tractor Trailer	\$26.78	\$6.42	\$33.20
Ironworker - Structural	\$20.00	\$4.55	\$24.55				

The Laborer classifications include a wide range of work duties. Therefore, if any specific occupation to be employed on this project is not listed in this determination, call the Bureau of Labor Standards at the above number for further clarification.

Welders are classified in the trade to which the welding is incidental.

Apprentices – The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

Appeal – Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates.

A true copy

Attest: Scott R. Cotnoir
 Scott R. Cotnoir
 Wage & Hour Director
 Bureau of Labor Standards

Expiration Date: 12-31-2020

MaineDOT DBE Project Attainment Target (PAT)
for this Project is .026 %

The MaineDOT seeks to meet the specified annual Disadvantaged Business Enterprise (DBE) usage goal set out by 49 CFR 26.45 through the efforts of contractors seeking to employ qualified DBE subcontractors. We seek to meet this goal by race neutral means and do not, at this time, use contract specific requirements for each project. We do however, understand the capacity of Maine's DBE community and the unique characteristics a project may have that would differ from the broad annual goal.

Taking this into consideration, the MaineDOT will review each project and develop an anticipated attainment or Project Attainment Target (PAT) based on several factors that are project specific. Those factors include:

- Scope of Work
- DBE availability according to Specification Item
- Geographic location
- DBE capacity

This PAT is developed to assist contractors to better understand the DBE participation that the MaineDOT can reasonably expect for a specific project. The PAT is NOT a mandate but an assessment of the DBE opportunities that this project could meet or exceed. MaineDOT anticipates that each contractor will make the best effort to reach or exceed the PAT for this project.

SPECIAL PROVISIONS
SECTION 104
Utilities

UTILITY COORDINATION

The Contractor has primary responsibility for coordinating their work with utilities after contract award. The Contractor shall communicate directly with the utilities regarding any utility work necessary to maintain the Contractor’s schedule and prevent project construction delays. The Contractor shall notify the resident of any issues.

THE CONTRACTOR SHALL PLAN AND CONDUCT WORK ACCORDINGLY.

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications **Is** required.

GENERAL INFORMATION

These Special Provisions outline the arrangements that have been made by the Department for utility and/or railroad work to be undertaken in conjunction with this project. The following list identifies all known utilities or railroads having facilities presently located within the limits of this project or intending to install facilities during project construction.

Utilities have been notified and will be furnished a project specification.

Overview:

Utility	Aerial	Underground
Versant Power	X	
Charter Communications	X	
Consolidated Communications of Northern New England LLC (CCNNE)	X	

Utility Contact Information

Utility	Contact Person	Contact Phone
Versant Power	Dave Perkins	207-949-3918
Charter Communications	Ralph Dow	207-458-8034
Consolidated Communications of Northern New England LLC (CCNNE)	Stephen Ogden	207-735-8602

Temporary utility adjustments **Are Not** anticipated. If any unexpected utility relocations become necessary, they shall be scheduled in accordance with Section 104 of the Standard Specifications and shall be performed by the appropriate utility company in conjunction with the work by the Contractor. Should the Contractor choose to have any poles temporarily relocated, all work shall be done at the Contractor's request and expense, with no additional cost or schedule impacts to the Department.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

All adjustments are to be made by the respective utility/railroad unless otherwise specified herein.

Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

All clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

It is the responsibility of the Contractor with the Utility Pole owner, to layout all of the proposed pole locations in the field prior to the start of utility relocations. Should any adjustments be needed, the Utility will document adjustments and inform the Department prior to utility relocations.

The Contractor shall provide the utilities access to the new pole locations. Construction of any spot cuts or fills in excess of 2 feet must be completed prior to utility relocations. The Contractor shall prepare a plan for how access and the spot cuts and fills will be accomplished and what the schedule will be for performing the work. This plan will be discussed at the pre-construction utility meeting.

***** Specific information regarding the line voltage can be requested from Versant Power*****

Utility working days are Monday through Friday. Times are estimated on the basis of a single crew for each utility. Any times and dates mentioned are **estimates only** and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against the Department if they are exceeded.

AERIAL

Summary:

Utility	Pole Set	New Wires/Cables	Trans. Wires/Cables	Remove Poles	Estimated Working Days
Versant Power		15			15
Charter Communications		6			6
Consolidated Communications of Northern New England LLC (CCNNE)	8	16		6	30
Total:					51

Total working day estimated for utilities is the total of both phase 1&2

Phase 1 total days: 17

Phase 2 total days 34

Utility Specific Issues:

Consolidated Communications of Northern New England LLC (CCNNE)

Consolidated Communications will be rebuilding several hundred feet of poles and facilities. The construction of the new system will be built in stages. Several poles have been identified as conflicts with the new alignment and will need to be relocated prior to the bridge and alignment construction begins. Many of the poles can stay in place while the project is in construction. As the project nears completion, Consolidated Communications will re-mobilize and finish the utility work. Access provided by the Contractor to the existing system for maintenance and the removal of existing poles, until the new system is complete. This schedule of work will be discussed in further depth at the pre-construction meeting (See pole list for detailed locations

***Note The utility plan will be constructed in stages. Below is work that will need to be completed in stage one. All Utility companies will need to participate in the two-stage process.**

Stage one work

Remove the stub pole 38S at 14+14 ,6'Rt. Install temporary push brace pole at pole 38.

Remove (CCNNE) telephone pole at 21+11 Lt. 37'.

Replace pole 42 at 22+39. Rt.116' to 22+40, Rt. 116'. This will be used for the temporary feed for all utilities to Pleasant River road.

Replace pole at 22+25 Rt. 47' to 22+28 Rt. 46'. This will be used by all utilities to temporarily re-feed Pleasant River road. This will be removed.

Install new pole at 22+10. Lt 29' Permanent location

Install new pole at 203+00 LT 24' Permanent location

Relocate pole at 202+19 ,50' Rt. To 201+43, 37' Rt. Permanent location.

Any fill areas and will need to be filled prior to the poles being placed access to the locations will need to be provided to the utility.

All other work to be done will be stage two.

Versant Power

Once Consolidated Communications has completed phase 1 of the pole relocations Versant Power will frame and attach their facilities to the new locations. Once Consolidated Communications has completed phase 2 of the project Versant Power will return and finish attaching their facilities to the new pole locations.

Charter Communications

Once Versant Power has completed phase 1 of the relocations, Charter Communications will transfer/splice their facilities to the new poles. Charter Communications will follow the same sequence when phase 2 is complete.

Consolidated Communications of Northern New England LLC (CCNNE)

Once Charter Communications has completed phase 1 of the pole relocations, Consolidated Communications will transfer/ splice and attach their facilities to the new locations. Once Charter Communications has completed phase 2 of the project, Consolidated Communications will return and finish attaching their facilities to the new pole locations and remove all existing poles.

Pole List: Milo 22627.00

Existing Pole #	Existing Station	Left/Right		Existing Offset	Proposed Station	Left/Right		Proposed Offset	Comments
		L T	R T			LT	RT		
35	9+23		X	23'					CCNNE Remove existing pole
					9+20		X	24'	New Pole
35S					9+20	X		31'	New Stub Pole
36	10+89		X	21'					CCNNE Remove Existing pole
36S	10+89	X		18'					CCNNE Remove Existing pole
					11+20		X	24'	New Pole
37	12+30		X	29'					CCNNE Remove existing pole
					12+86		X	30'	New Pole
38	13+88		X	25'					CCNNE Remove existing pole
38S	14+15	X		48'					CCNNE Remove existing pole
					14+50		X	26'	New Pole
39	15+75		X	22'					CCNNE Remove existing pole
					16+30	X		24'	River crossing pole
40	17+13		X	104'					CCNNE Remove existing Pole
41	20+84		X	100'					
					20+40	X		27'	River crossing pole
	21+11	X		37'					CCNNE Remove existing pole

Town: **Milo**
 Project: **22627.01**
 Date: **August 13, 2020**

					22+10		X	29'	New Pole
					22+25		X	46'	Temporary Pole
	22+28		X	47'					CCNNE Remove existing pole
42	22+39		X	116'					CCNNE Remove existing pole
					24+70		X	27'	New Pole
1	25+22		X	52'					CCNNE Remove existing pole
1 1/2					26+45		X	24'	New Pole
2S					28+30	X		30'	New Pole
2					28+30		X	23'	New Pole
44	103+51	X		23'					CCNNE Remove existing pole
					103+60	X		24'	New Pole
43	105+01	X		31'					CCNNE Remove existing pole
					105+58	X		39'	New Pole
3	202+16		X	51'					CCNNE Remove Existing pole
3 1/2	202+19		X	50'					CCNNE Remove existing pole
					201+43		X	37'	New Pole

SUBSURFACE

None

MAINTAINING UTILITY LOCATION MARKINGS

The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

UTILITY SIGNING

Any utility working within the construction limits of this project shall ensure that the traveling public is adequately protected at all times. All work areas shall be signed, lighted, and traffic flaggers employed as determined by field conditions. All traffic controls shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as issued by the Federal Highway Administration.

**SPECIAL PROVISION
SECTION 104
GENERAL RIGHTS & RESPONSIBILITIES
(Bridge Closure Notification)**

Section 104, General Rights and Responsibilities, of the Standard Specifications is amended as follows:

104.4.10 Coordination of Bridge Closure/Bridge Width Restriction Notification:

Paragraph 2 is removed and replaced with the following:

A public notice shall be published in a local newspaper ten day prior to the closure.

SPECIAL PROVISION
SECTION 104
(WAGE RATES)

When two or more wage rate schedules appear in the bid Book, the highest rate shall prevail for each classification.

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Buy America Certification)

105.11 Federal Requirements Add the following as the third and subsequent paragraphs:

“Prior to payment by the Department, the Contractor shall provide a certification from the producer of steel or iron, or any product containing steel or iron as a component, stating that all steel or iron furnished or incorporated into the furnished product was manufactured in the United States in accordance with the requirements of the Buy America provisions of 23 CFR 635.410, as amended. Such certification shall also include (1) a statement that the iron or steel product or component was produced entirely within the United States, or (2) a statement that the iron or steel product or component was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ (actual value).

All manufacturing processes must take place domestically. Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size and shape, or the final finish is considered a manufacturing process. These processes include rolling, extruding, machining, bending, grinding, drilling, and coating. “Coating” includes epoxy coating, galvanizing, painting, or any other coating that protects or enhances the value of the material.

A Buy America Certification is required from each manufacturer, fabricator, supplier, subcontractor, etc. that meets the “manufacturing” definition above.

Buy America does not apply to raw materials (iron ore and alloys), scrap, pig iron, or processed, pelletized, and reduced iron ore.”

SPECIAL PROVISION
SECTION 105
 General Scope of Work
 (Environmental Requirements)

In-Water work consists of any activity conducted below the normal highwater mark of a river, stream, brook, lake, pond or “Coastal Wetland” areas that are subject to tidal action during the highest tide level for the year which an activity is proposed as identified in the tide tables published by the National Ocean Service. <http://www.oceanservice.noaa.gov/> For the full definition of “Coastal Wetlands”, please refer to 38 MRSA 480-B(2).

I. In-Water Work is allowed for the following activities as follows:

Activity	In-Water Work Window
Fill placement for temporary trestle	July 15-September 30; December 1-March 31
Pier demolition	July 15-September 30; December 1-March 31
Pile driving	July 15-September 30; December 1-March 31
Cofferdam construction	July 15-September 30; December 1-March 31
Work within cofferdam	Any time
Cofferdam removal	July 15-September 30; December 1-March 31
Temporary fill removal	Any time

II. In-Water work window applies to the following water bodies at the following station #'s:

1. Pleasant River at proposed bridge replacement

III. MaineDOT will conduct Atlantic salmon redd surveys at Pleasant River Bridge during the spawning season (October 1 start) of each construction year. During a redd survey of the project site in November 2019, a redd was found approximately 550 ft upstream of the bridge (river right), and it was confirmed that potential spawning habitat exists both upstream and downstream of the bridge. In the event that a salmon redd is found during the Fall 2020 or subsequent years, all in-water work in the vicinity of the redd shall be delayed while consultation with U.S. Fish & Wildlife determines appropriate mitigation methods or until July 15 of the following year. Delays resulting from the presence of redds shall be considered an Excusable Delay.

IV. Additional Requirements for In-water Pile Driving

1. Piles driven by impact hammer may not exceed the following pile sizes:
 - i. Pipe pile: 30 inch
 - ii. Steel H-pile: 14-inch
2. The contractor shall contact Eric Ham of MaineDOT Environmental Office (207-215-7356) at least two weeks prior to pile driving with an impact hammer to coordinate monitoring for presence of Atlantic Salmon during pile driving activities.
3. Installation of piles with an impact hammer shall be limited to no more than 3 piles per day.
4. The contractor shall use a vibratory hammer for pile installation as much as practicable.
5. Pile driving shall occur during the day.

6. Any use of an impact hammer during pile driving shall require the use of passive attenuation measures (changing hammer type, reducing driving duration, reducing force settings) and active measures (cushions and bubble curtains).
7. **The contractor shall employ a bubble curtain for all in-water impact pile driving. The bubble curtain shall meet the design specifications and performance requirements in the attached Bubble Curtain Specification. The contractor shall complete a performance test of the bubble curtain prior to any impact pile driving. The performance test shall confirm the calculated pressures and flow rates at each manifold ring.**
8. **Hydroacoustic monitoring for impact pile driving shall be completed as follows for at least one pile:**
 - i. **Largest pile driven in-water (in at least two feet of water)**
 - ii. **A minimum of three hydrophones must be used, located approximately 33, 66, and 100 feet from the in-water sound producing activity.**
9. The Contractor shall retain the services of a qualified person or firm to prepare and implement a hydroacoustic monitoring plan following the attached “Underwater Noise Monitoring Plan” template. The Contractor shall provide MaineDOT a completed draft hydroacoustic monitoring plan at least 45 days prior to implementation for review. **No in-stream noise-generating activities may commence until MaineDOT has approved the monitoring protocol.**
10. The Contractor shall provide Hydroacoustic monitoring data to the Department. A preliminary data report shall be submitted within 5 business days of pile driving activity. A final summary report of all of the data must be submitted within 2 months of completion of in-water construction.
11. The contractor shall be responsible for implementing noise monitoring and noise attenuation as described above. Payment shall be made as a lump sum under Pay Item 501.237.

V. Special Conditions:

1. Special Conditions of Army Corps of Engineers (ACOE) Individual permit apply (see permit and conditions in SP 105).
2. Special Conditions of Formal Endangered Species Act (Section 7) Consultation with U.S. Fish and Wildlife Service apply (summarized in this Special Provision 105 and ACOE permit).
3. The MaineDOT will conduct Atlantic salmon redd surveys during the spawning season prior to start of construction and each year during construction.
4. The Contractor shall hold a pre-construction meeting with appropriate MaineDOT Environmental Office staff, other MaineDOT staff, and the Contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon (ATS). The following individuals/agencies shall be invited: ACOE (Jay Clement, jay.l.clement@usace.army.mil); FHWA (Eva Birk, eva.birk@dot.gov); and U.S. Fish and Wildlife Service (Patrick Dockens, patrick_dockens@fws.gov).
5. The contractor shall contact Eric Ham of MaineDOT Environmental Office (207-215-7356, eric.ham@maine.gov) at least two weeks prior to installation of cofferdams to coordinate fish evacuation. Fish evacuation includes electrofishing. Electrofishing activities are prohibited when water temperatures is greater than or equal to 22 degrees Celsius (71.6 degrees Fahrenheit).
6. If adult Atlantic salmon are observed during active construction, all activities shall cease and the MaineDOT shall immediately contact the Service’s Maine Field Office at 207-902-1586 (Patrick Dockens) within 48 hours of occurrence.

7. The MaineDOT will implement their BMPs in accordance with the MaineDOT: Best Management Practices for Erosion and Sedimentation Control. This BMP manual outlines means and methods to prevent sedimentation into streams from construction activities or storm events. These BMP measures include many filtering and sedimentation control techniques designed to dissipate water discharge energy (flow), filtering out sediments, and allowing particulate matter to settle out from suspension to the greatest extent practicable.
8. When cofferdams are placed within the water column, they shall be installed in a manner so as to avoid trapping fish. A pre-installation “sweep” of the area will be conducted to ensure there are no fish in the enclosed area. If cofferdams trap water during installation and project personnel determine that they need to be dewatered, then MaineDOT (or approved consultants) will capture and carefully remove as many fish species as possible from within the dam prior to dewatering. The MaineDOT will inspect the cofferdams after installation for adult Atlantic salmon.
9. All Atlantic salmon mortalities from electrofishing or any other project related activities shall be reported to the Service’s Maine Field Office at 207-902-1586 (Patrick Dockens) within 48 hours of occurrence. Any Atlantic salmon death(s) shall be immediately preserved (refrigerate or freeze) for delivery to the Service’s office in East Orland, Maine. If the Service is not available, contact the National Marine Fisheries Service in Orono Maine at 207-867-3755 (Dan Tierney) at arrange for delivery.
10. Fish passage through the project area shall be available at all times. Cofferdams or netting shall never close off the stream, and flow will continue between the devices on either side of the stream.
11. For any required pumping operations, the contractor shall use a screen on each pump intake sufficiently large enough so that the approach velocity does not exceed 6.10 m sec⁻¹ (0.20 ft sec⁻¹). Square or round screen face openings are not to exceed 2.38 mm (3/32 in) on a diagonal. Criteria for slotted face openings must not exceed 1.75 mm (approximately 1/16 in) in the narrow direction. These screen criteria follow NMFS guidance (2008). Intake hoses shall be regularly monitored while pumping to minimize adverse effects to Atlantic salmon.
12. During construction, any disturbed soils shall be temporary stabilized with BMPs, such as straw mulch, plastic sheeting, erosions control mix, or other appropriate BMPs.
13. All areas of temporary waterways or wetland fill shall be restored to their original character upon completion of the project.
14. The contractor shall minimize vegetation clearing adjacent to the river to the maximum extent practicable. Areas of disturbed soil adjacent to the waterways shall be stabilized and re-vegetated with a seed mix appropriate for riparian areas in Maine.
15. Hoe ram removal of the existing abutment shall occur in the dry or behind dewatered cofferdams.
16. The Contractor shall contact Eric Ham of MaineDOT Environmental Office (207-215-7356) at least two weeks prior to in-water activities to coordinate turbidity monitoring during cofferdam installation.
17. Construction impacts shall be confined to the minimum area necessary to complete the project.
18. Construction of temporary approaches and abutments shall be contained within turbidity curtains. Temporary fill shall consist of non-erodible material. Fill for temporary approaches shall limited to no more than 25 percent of the width of the river.
19. Following installation of the new concrete pier, the contractor shall backfill the pier cap and lower portion of the pier with dredge material prior to removing the cofferdam. The disturbed

- substrate around the new concrete pier shall be restored to its original contour and character upon completion of the project.
20. Temporary fill shall extend no more than 25 feet from the shoreline from each side of the river. The allowable fill represents less than 25 percent of the width of the river, which is approximately 235 feet at the location of the temporary work trestle.
 21. Demolition of concrete piers of existing bridge shall occur within containment such as turbidity curtains.
 22. All in-water excavation shall be completed in a cofferdam.
 23. Movement effects and other effects created from cofferdam use will be minimized by limiting cofferdam placement to the time necessary to complete instream activities, assuring that the cofferdam will be placed in the stream as shown in submitted drawings, and by maintaining a flow channel throughout the instream construction period. Cofferdams shall be removed from the stream within 2 days of completion of instream construction, allowing for minor delays due to high stream flows following heavy precipitation.
 24. To minimize the spread of noxious weeds into the riparian zone, all off-road equipment and vehicles (operating off of existing open and maintained roads) shall be cleaned prior to entering the construction site to remove all soil, seeds, vegetation, or other debris that could contain seeds or reproductive portions of plants. All equipment shall be inspected prior to off-loading to ensure that they are clean.
 25. All concrete shall be poured in the dry, or within confined waters not being dewatered to surface waters. Prior to release to a natural resource, any impounded water that has been in contact with concrete placed during construction shall have a pH between 6.0 and 8.5, shall be within one pH unit of the background pH level of the resource and shall have a turbidity level no greater than the receiving resource. This requirement is applicable to concrete that is placed or spilled (including leakage from forms) as well as indirect contact via tools or equipment.
 26. As a component of the SEWPCP required for each project, MaineDOT or their contractor will develop and implement a Spill Prevention Control and Countermeasure Plan (SPCCP) designed to avoid any stream impacts from hazardous chemicals, such as diesel fuel, oil, lubricants, and other hazardous materials. All refueling or equipment maintenance will take place away from the stream and in a careful manner that prohibits chemical or other hazardous materials from entering the stream. These measures include the following:
 - a. All vehicle and equipment refueling activities shall occur more than 100 feet from any water course.
 - b. All vehicles carrying fuel shall have specific equipment and materials needed to contain or clean up any incidental spills at the Project site. Equipment and materials would include spill kits appropriately sized for specific quantities of fuel, shovels, absorbent pads, straw bales, containment structures and liners, and/or booms.
 - c. During use, all pumps and generators shall have appropriate spill containment structures and/or absorbent pads in place.
 - d. All equipment used for in-stream work shall be cleaned of external oil, grease, dirt, and mud. Any leaks or accumulations of these materials would be corrected before entering areas that drain directly to streams or wetlands.

V. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan
2. Permitted Resource Impacts (square feet), see ACOE permit for locations:

Stream:

Permanent: 3,260

Temporary: 2,340

Wetland:

Permanent: 1,545

Temporary 1,565

VI. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal highwater mark if outside the prescribed in-water work window, except for the following:

1. Work within a cofferdam constructed according to MaineDOT's Standard Specifications and in adherence with the contractors approved "Soil Erosion and Water Pollution Control Plan".

VII. No work is allowed that completely blocks a river, stream, or brook without providing downstream flow.

NOTE: Regulatory Review and Approval is required to modify the existing In-Water work window. Requests for work window extensions must be submitted to the MaineDOT Environmental Office. Approval of requests for work window extensions is not guaranteed and may result in delays in construction schedule that are the sole responsibility of the contractor.

UNDERWATER NOISE MONITORING PLAN

*****TEMPLATE*****

Replace underlined blue italic text with project information.

Blue italic text is guidance.

Plain, black text is template language.

All blue italic text should be replaced or omitted for final production.

Prepared by:

Name and full contact information

Signature Block

Date

INTRODUCTION *(This section will be project specific)*

The full agency name proposes to detailed project description. See vicinity map (Figure 1).

Figure 1. Vicinity map of name project.

PROJECT AREA *(This section will be project specific)*

Describe the location of the project, including all water bodies that are affected. Identify the USGS hydrologic unit, both the name and code, where the project is located. Include detailed maps and figures, when available, relative to environmental features that influence monitoring (e.g., geology, bathymetry, etc.).

PERMIT/ESA CONDITIONS *(This section will be project specific and is applicable only when the ESA consultation is complete or Federal/State/local permits have been issued. Each agency should modify this section to reflect the various types of permit/ESA conditions that they see.)*

Summarize the Federal/State/local permit conditions and the ESA requirements that relate to the underwater noise. Permit conditions include monitoring requirements, timing restrictions, etc. The ESA requirements are found in the Incidental Take Statement and Terms and Conditions sections of the biological opinion. These requirements vary between biological opinions, but can include monitoring requirements, timing restrictions, limits on cumulative sound exposure level (cSEL) at a given distance, description of the area where the thresholds must not be exceeded, the allowable number of piles driven per day, the allowable number of pile strikes per day, or a limit on the single strike SEL.

PILE INSTALLATION LOCATION *(This section will be project specific)*

Figure 2 indicates the location of the provide location of the structure(s) in need of pile driving. There will be a total of XX piles driven as part of the name structure(s).

Figure 2. Location of name structure(s) where pile driving activity will take place. *This information must be in enough detail to allow the reader to assess the monitoring locations.*

PILE INSTALLATION

Impact Pile Driving for Fish Consultations

Provide pile installation information. For example:

Hydroacoustic monitoring will be conducted for X piles struck with an impact hammer. Piles chosen to be monitored are driven in water depths that are representative of mid-channel or typical water depths at the project location where piles will be driven.

The number of piles to be monitored will depend on a variety of factors – some projects may require that all piles be monitored, while others may require a representative sample of piles be monitored. If a sample of piles is to be monitored, provide the considerations taken and the rationale used in choosing a representative number of piles, such as, bathymetry, total number of piles to be driven, substrate type, depth of water, distance from shore, river, or stream bank, and any other considerations, as appropriate. When monitoring a subset, a minimum of 5 piles should be monitored. Additional monitoring to produce a representative sample may be warranted when projects are

driving a large number of piles, driving multiple piles of varying diameters in differing substrates, driving different types of piles, or driving piles in widely differing depths.

Hydroacoustic monitoring of *type of pile* with impact driving will include:

- Monitoring *X piles, out of a total of Y piles driven for the project.*
- Testing sound attenuation system effectiveness.

Figure 3 indicates the location of the piles to be monitored and the approximate hydrophone locations for each pile being monitored. All hydrophones will be placed at least 1 m (3.3 feet) below the surface. *If only one hydrophone at one distance is to be used it is acceptable for the hydrophone to be placed 10 meters from the pile at midwater depth. If hydrophones will be placed at more than one distance from the pile and used to calculate transmission loss over distance, water depth should be at least 4m (13 ft) and it is suggested that the additional hydrophone nearest the pile be placed at least 3H from the pile where H is the water depth at the pile and at 0.7 to 0.85H depth from the surface. In waters less than 4m (13 ft) deep, a single hydrophone at midwater depth is sufficient¹.* Hydrophones will be located *X* meters from each pile with a clear acoustic line-of-sight between the pile and the hydrophone. *Additional distances measured concurrently are desirable, if possible, to estimate the site specific range to the threshold boundary. Include any additional distances or depths where hydrophones will be located. If airborne noise monitoring is required, the primary measurement microphone shall be placed 50 feet (e.g. 15 meters) from the pile at least 6 feet above the ground or water, and shall have an unobstructed view of the length of the pile.*

¹ Some projects may need or require more than one hydrophone to collect real time measurements at multiple locations or multiple distances. In these situations multiple hydrophones can be placed at midwater depths.

Figure 3. Location of the piles that will be monitored on the name structure(s).

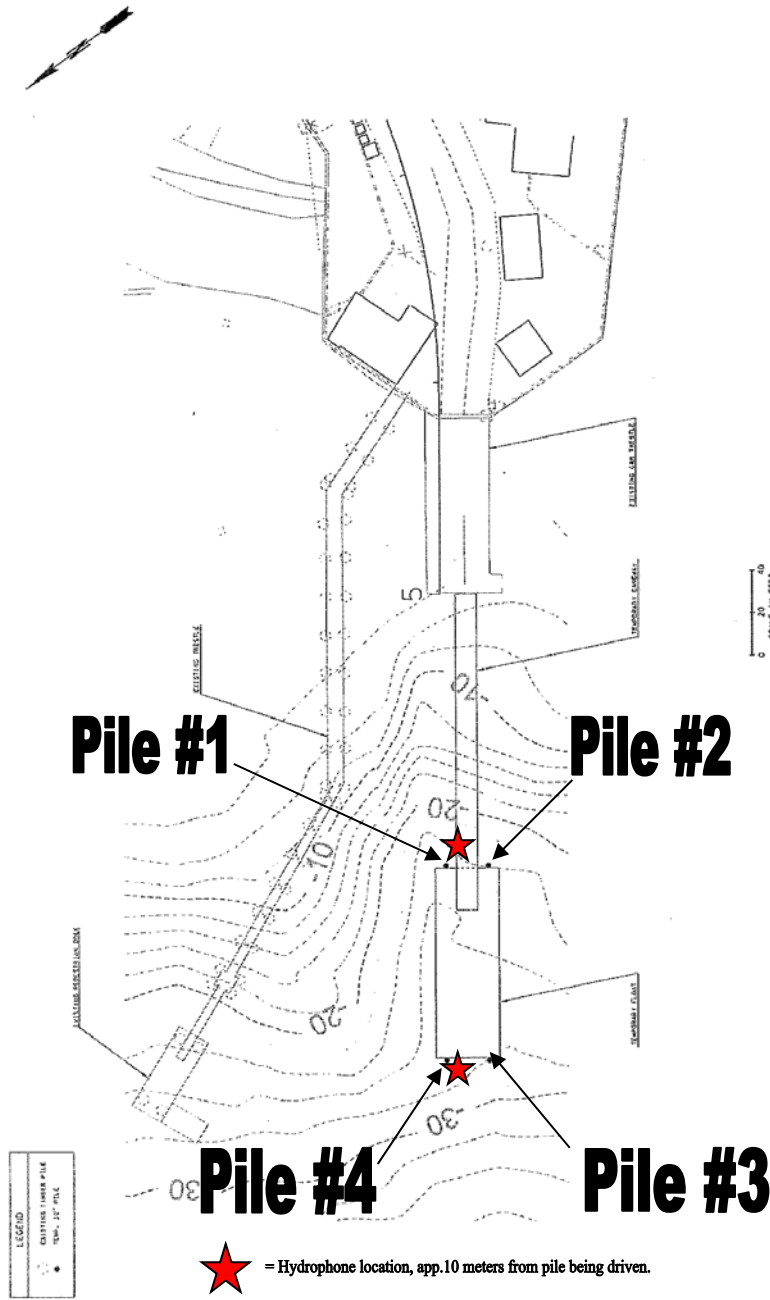


Table 1 lists the name structure(s) to be installed, the water depth, and the number and size of piles that will be installed.

Table 1
Depth, Number Piles to be Monitored

Structure	Water Depth	Structural Components Installed
<u>Name structure</u>	<u>X feet to X feet</u>	<u>X - XX-inch diameter type of pile</u>

CONTRACTOR REQUIREMENTS

The contractor will submit a detailed description of their qualifications, which must include a minimum of a bachelor's degree in a related field² and 3 years' experience in noise monitoring and analysis, and monitoring plan based on this template for approval by [INSERT AGENCY NAME]. A list of the contractors' proposed sound level monitoring equipment shall be included along with specifications and a description of the purpose. The measurement range in terms of amplitude (in dB referenced to one micropascal (re: 1 uPa)), sensitivity and frequency shall be stated. A minimum frequency range of 20 Hz to 20 kHz and a minimum sampling rate of 48,000 Hz will be used when monitoring. Sampling rates higher than 48 kHz are preferred. Table 2 describes the minimum requirements of the equipment to be used. In addition to the equipment selection, quality control/quality assurance procedures should be described (e.g., how will system responses be verified and how will data be managed).

Table 2.

Equipment for underwater sound monitoring (hydrophone, signal amplifier, and calibrator). All have current National Institute of Standards and Technology (NIST) traceable calibration. *This table is intended as a guideline and exact specifications can be adjusted to meet the needs of the individual project or contractors' equipment.*

Item	Specifications	Minimum Quantity	Usage
<u>Hydrophone</u>	<u>Receiving Sensitivity-</u> <u>-211dB re 1V/μPa</u>	<u>1</u>	<u>Capture underwater sound pressures near the source and convert to voltages that can be recorded/analyzed by other equipment.</u>
<u>Hydrophone</u>	<u>Receiving Sensitivity –</u> <u>-200dB re 1/μPa</u>	<u>1</u>	<u>Capture underwater sound pressures for background levels and convert to voltages that can be recorded/analyzed by other equipment.</u>
<u>Signal Conditioning Amplifier</u>	<u>Amplifier Gain-</u> <u>0.1 mV/pC to 10 V/pC</u> <u>Transducer Sensitivity Range-</u> <u>10-12 to 103 C/MU</u>	<u>1</u>	<u>Adjust signals from hydrophone to levels compatible with recording equipment.</u>
<u>Calibrator (pistonphone-type)</u>	<u>Accuracy-</u> <u>IEC 942 (1988) Class 1</u>	<u>1</u>	<u>Calibration check of hydrophone in the field.</u>

² This can include Institute of Noise Control Engineering of the USA (INCE/USA) certification or related fields such as acoustics, physics, oceanography, geology or other physical sciences that have required coursework in physics.

<u>Digital Signal Analyzer</u>	<u>Sampling Rate- 48kHz or greater</u>	<u>1</u>	<u>Analyzes and transfers digital data to laptop hard drive.</u>
	<u>Range- 30 – 120 dBA</u>		
<u>Microphone (free field type)</u>	<u>Sensitivity- -29 dB ± 3 dB (0 dB = 1 V/Pa)</u>	<u>1</u>	<u>Monitoring airborne sounds from pile driving activities (if not raining).</u>
	<u>Wind Screen</u>		
<u>If water velocity ~> 1m/s, Flow shield</u>	<u>Open cell foam cover or functional equivalent</u>	<u>1/hydrophone</u>	<u>Eliminate flow noise contamination.</u>
<u>Laptop computer</u>			
<u>or Digital Audio Recorder</u>	<u>Compatible with digital signal analyzer</u>	<u>1</u>	<u>Record digital data on hard drive or digital tape.</u>
<u>Real Time and Post-analysis software</u>	<u>=</u>	<u>1</u>	<u>Monitor real-time signal and post-analysis of sound signals.</u>

To facilitate further analysis of data full bandwidth, time-series underwater signal shall be recorded as a text file (.txt) or wave file (.wav) or similar format. Recorded data shall not use data compression algorithms or technologies (e.g. MP3, compressed .wav, etc.).

METHODOLOGY

Impact Pile Driving for Fish Consultations (and listed US FWS, diving sea bird, if relevant)

Underwater background sound level measurements are optional, however, if desired then the NMFS (2012a) guidance should be followed.

*If one hydrophone at one distance is to be used it is acceptable for the hydrophone to be placed 10 meters from the pile and at midwater depth. If hydrophones will be placed at more than one distance from the pile it is suggested that the hydrophone nearest the pile be placed at least 3H from the pile where H is the water depth at the pile and 0.7 to 0.85H depth from the surface. The hydrophone(s) will be placed at X meters depth at a distance of X meters from each pile being monitored, in waters of X meters depth. *If water velocity is 1 meter/second or greater, 1-3 meters off the bottom may be recommended for near field hydrophones and greater than 5 meters from the surface may be recommended for any far field hydrophones.* A weighted tape measure will be used to determine the depth of the water. The hydrophone(s) will be attached to a nylon cord, a steel chain, or other proven anti-strum features if the current is swift enough to cause strumming of the line. The nylon cord or chain will be attached to an anchor that will keep the line the appropriate distance from each pile. The nylon cord or chain will be attached to a float or tied to a static line at the surface. The distances will be measured by a tape measure, where possible, or a range-finder. The acoustic path (line of sight) between the pile and the hydrophone(s) should be unobstructed in all cases.*

When collecting sound measurements in an area with currents (i.e., in rivers or tidally influenced areas), appropriate measures will be taken, when necessary, to ensure that the flow-induced noise at the hydrophone will not interfere with the recording and analysis of the relevant sounds (NMFS, 2012a). As a general rule, current speeds of 1.5 meters/second or greater are expected to generate significant flow-induced noise, which may interfere

with the detection and analysis of low-level sounds such as the sounds from a distant pile driver or background sounds. If such measures are necessary, include a description of those measures. For example:

If it becomes necessary to reduce the flow-induced noise at the hydrophone, a flow shield will be described and installed around the hydrophone to provide a barrier between the irregular, turbulent flow and the hydrophone. If no flow shield is used in these situations, the current velocity will be measured and a correlation between the levels of the relevant sounds (background or pile driving) and current speed will be made to determine whether the data is valid and can be included in the analysis.

The hydrophone calibration(s) will be checked at the beginning of each day of monitoring activity. *The method of calibration and calibration equipment used will be described.* NIST traceable calibration forms shall be provided for all relevant monitoring equipment. Prior to the initiation of pile driving, the hydrophone will be placed at the appropriate distance and depth as described above.

The onsite inspector/contractor will inform the acoustics specialist when pile driving is about to start to ensure that the monitoring equipment is operational. Underwater sound levels will be continuously monitored during the entire duration of each pile being driven with a minimum one-third octave band frequency resolution. The wideband instantaneous absolute peak pressure and Sound Exposure Level (SEL) values of each strike, and daily cumulative SEL should be monitored in real time during construction to ensure that the project does not exceed its authorized take level. Peak and rms pressures will be reported in dB (re: 1 μ Pa). SEL will be reported in dB (re: 1 μ Pa²·sec). Wideband time series recording is strongly recommended during all impact pile driving.

Prior to, and during, the pile driving activity, environmental data will be gathered, such as water depth and tidal level, wave height, and other factors that could contribute to influencing the underwater sound levels (e.g. aircraft, boats, etc.). Start and stop time of each pile driving event and the time at which the bubble curtain or functional equivalent³ is turned on and off will be logged.

The contractor or agency will provide the following information, in writing, to the contractor conducting the hydroacoustic monitoring for inclusion in the final monitoring report: a description of the substrate composition, approximate depth of significant substrate layers, hammer model and size, pile cap or cushion type, hammer energy settings and any changes to those settings during the piles being monitored, depth pile driven, blows per foot for the piles monitored, and total number of strikes to drive each pile that is monitored.

Sound Attenuation Monitoring

All monitored piles may be tested with the sound attenuation system on and off (or presence and absence) to test its effectiveness⁴. To account for varying resistance as the pile is driven; the sound attenuation device will be turned off for *(describe schedule for turning on and off)* periods during the beginning, the middle third, and near the end of the drive. After turning off the attenuation system, pile driving should not resume for at least 2 minutes to allow time for air bubbles to completely disperse. *For piles that require less than 5 minutes to drive, pile driving should occur for only two periods with the bubbles off, one near the beginning and once near the end of the drive.*

³ A functional equivalent must function as well as or better than the attenuation device that was proposed during consultation or required by the ESA consultation or applicable permits. It must achieve the same or better sound level reductions that were used in the calculations during ESA consultation or the permitting process.

⁴ Note: There may be circumstances where the U.S. Fish and Wildlife Service determines that unattenuated pile driving (striking the pile with the bubble curtain turned off) would pose a significant risk of injury to species. In those situations, the Service may request that unattenuated pile driving does not occur and that hydroacoustic monitoring be conducted to determine the extent at which certain thresholds are met instead. This will need to be determined on a case by case basis for projects that may affect listed species.

SIGNAL PROCESSING

Impact Pile Driving for Fish Consultations (and any US FWS listed, diving sea bird)

Post-analysis of the underwater pile driving sounds will include:

- Number of pile strikes per pile and per day.
- For each recorded strike (or each strike from a subset), determine the following:
 - The peak pressure, defined as the maximum absolute value of the instantaneous pressure (overpressure or underpressure).
 - The root mean squared sound pressure across 90% of the strikes energy (RMS_{90%}).
 - Sound exposure level, measured across 90% of the accumulated sound energy (SEL_{90%}). Calculation methodology is provided in Appendix A.
- Maximum, mean, and range of the peak pressure, with, and if applicable, without attenuation.
- Maximum, mean, range, and Cumulative Distribution Function (CDF) of the RMS_{90%}, both with and if applicable, without attenuation where the CDF is used to report the percentage of RMS_{90%} values above the thresholds.
- Maximum, mean, and range of the SEL_{90%}, both with and if applicable, without attenuation.
- Cumulative SEL (cSEL) across all of the pile strikes. If SEL was calculated for all strikes, cSEL is estimated as indicated in Appendix A. If SEL was calculated for a subset of strikes, cSEL is estimated as follows: $cSEL = SEL_{mean} + 10 \cdot \log(\text{total \# strikes})$.
- Where surrogate piles are monitored to represent a larger project, an estimate of the cSEL during a typical day of construction driving must be reported by summing the SEL over the expected number of pile strikes in a typical day for the larger project: $cSEL = SEL_{mean} + 10 \cdot \log(\#\text{strikes})$. The SEL_{mean} used in this calculation must correspond with the actual sound attenuation measures that will be used during construction of the larger project.
- A frequency spectrum both with and, *if applicable*, without attenuation, between a minimum of 20 and 20 kHz for up to eight successive strikes with similar sound levels.

If airborne noise monitoring is required, both A-weighted and unweighted measurements will be acquired. Broadband back-to-back RMS L_{max} (peak) and L_{eq} (average) 5-minute measurements will be made over the duration of pile driving. L_{max} measurements should be taken with a portable analyzer set for “fast” response (125 msec). For at least one full pile sequence of each pile size and substrate type, frequency spectrum measurements (L_{max} and L_{eq}) using a minimum resolution of one-third octave bands shall be taken to show the spectral content of the impact pile. If measuring background sound levels in the absence of construction is not possible, then report the L_{95} statistic.

ANALYSIS

Impact Pile Driving for Fish Consultations

Analysis of the data from the San Francisco-Oakland Bay Bridge Pile Installation Demonstration project (PIDP) indicated that 90 percent of the acoustic energy for most pile driving impulses occurred over a 50 to 100 millisecond period with most of the energy concentrated in the first 30 to 50 milliseconds (Illingworth and Rodkin, 2001). The RMS values computed for this project will be computed over the duration between where 5% and 95% of the energy of the pulse occurs. The SEL energy plot will assist in interpretation of the single strike waveform. The single strike SEL associated with the highest absolute peak strike along with the total number of strikes per pile and per day will be used to calculate the cumulative SEL for each pile and each 24-hour period.

In addition a waveform analysis of the individual absolute peak pile strikes will be performed to determine any changes to the waveform with the [*name type of noise attenuation device*](#). A comparison of the frequency content

with and without noise attenuation will be conducted. Units of underwater sound pressure levels will be dB (re:1 μPa) and units of SEL will be re:1 $\mu\text{Pa}^2\cdot\text{sec}$.

REPORTING

If sound attenuation devices are used during the monitoring, include the following text and analysis:

An analysis of the change in the waveform and sound levels with and without the *name type of noise attenuation device for impact driving* operating will be conducted.

Preliminary results for the daily monitoring activities, if required, will be submitted/reported to the primary point of contact⁵ at each of the Services within *X hours* after monitoring concludes for the day. In addition a final draft report including data collected and summarized from all monitoring locations will be submitted to the Services within 90 days of the completion of hydroacoustic monitoring. The results will be summarized in graphical form and include summary statistics and time histories of impact sound values for each pile. A final report will be prepared and submitted to the Services within 30 days following receipt of comments on the draft report from the Services. The report shall include:

1. Size and type of piles.
2. A detailed description of the *name type of noise attenuation device*, including design specifications (*if applicable*).
3. The impact hammer energy rating used to drive the piles, make and model of the hammer.
4. A description of the sound monitoring equipment.
5. The distance between hydrophone(s) or microphone(s) and pile.
6. The depth of the hydrophone(s) and depth of water at hydrophone locations.
7. The distance from the pile to the water's edge.
8. The depth of water in which the pile was driven.
9. The depth into the substrate that the pile was driven.
10. The physical characteristics of the bottom substrate into which the piles were driven.
11. The total number of strikes to drive each pile and for all piles driven during a 24-hour period.
12. The underwater wideband background sound pressure level reported as the 50% CDF (*if applicable*).
13. The results of the hydroacoustic monitoring, as described under Signal Processing. An example table is provided in Appendix C for reporting the results of the monitoring.
14. The distance at which peak, cSEL, and rms values exceed the respective threshold values.
15. A description of any observable fish, marine mammal, or bird behavior in the immediate area will and, if possible, correlation to underwater sound levels occurring at that time.
16. *If airborne noise monitoring is required, broadband A-weighted and unweighted maximum, minimum, and average Lmax and Leq levels shall be tabulated for every pile. For each pile size and substrate type frequency spectra (one-third octave minimum frequency resolution) charts will be included to show the frequency content of Lmax and Leq signatures. The frequency content of airborne noise background levels shall also be shown. Background sound levels or L95 surrogate for background sound shall be reported.*

⁵ The primary point of contact is the biologist that conducted the Section 7 consultation for the Service(s). In the event that the consulting biologist is not available, communication regarding monitoring results and reports should be addressed to the manager of the consultation branch or division with a reference to the consultation title.

REFERENCES

- Illingworth and Rodkin, Inc. 2001. Noise and Vibration Measurements Associated with the Pile Installation Demonstration Project for the San Francisco-Oakland Bay Bridge East Span, Final Data Report, Task Order 2, Contract No. 43A0063.
- NMFS, 2012a. Guidance Document: Data Collection Methods to Characterize Underwater Background Sound Relevant to Marine Mammals in Coastal Nearshore Waters and Rivers of Washington and Oregon. Memorandum: NMFS Northwest Fisheries Science Center – Conservation Biology Division and Northwest Regional Office – Protected Resources Division, January 31, 2012.
- NMFS, 2012b. Guidance Document: Data Collection Methods to Characterize Impact and Vibratory Pile Driving Source Levels Relevant to Marine Mammals. Memorandum: NMFS Northwest Fisheries Science Center – Conservation Biology Division and Northwest Regional Office – Protected Resources Division, January 31, 2012.
- NMFS, 2012c. Guidance Document: Sound Propagation Modeling to Characterize Pile Driving Sounds Relevant to Marine Mammals. Memorandum: NMFS Northwest Fisheries Science Center – Conservation Biology Division and Northwest Regional Office – Protected Resources Division, January 31, 2012.
- Southall, B.L., A.E. Bowles, W.T. Ellison, J.J. Finneran, R.L. Gentry, C.R. Greene, D. Kastak, D.R. Ketten, J.H. Miller, P.E. Nachtigall, W.J. Richardson, J.A. Thomas, and P.L. Tyack. 2007. Marine Mammal Noise Exposure Criteria: Initial Scientific Recommendations. *Aquatic Mammals* 33(4): 411-521.

APPENDIX A

Calculation of Cumulative SEL

An estimation of individual SEL values can be calculated for each pile strike by calculating the following integral, where T is T₉₀, the period containing 90% of the cumulative energy of the pulse (eq. 1).

$$SEL = 10 \log \left(\int_0^T \frac{p^2(t)}{p_0^2} dt \right) \text{ dB} \quad (\text{eq. 1})$$

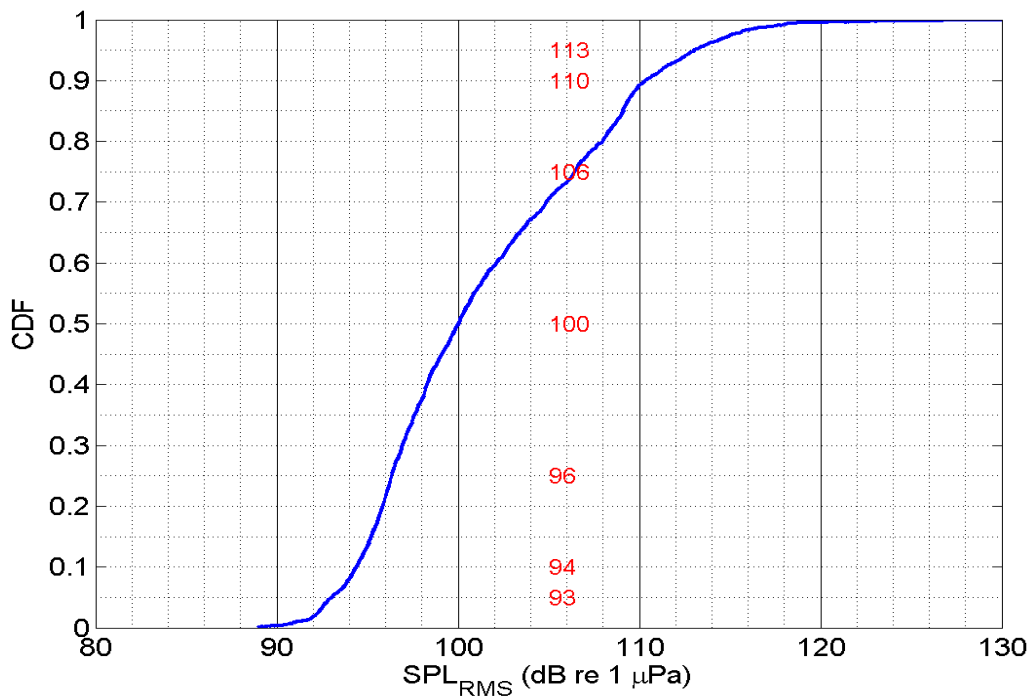
Calculating a cumulative SEL from individual SEL values cannot be accomplished simply by adding each SEL decibel level arithmetically. Because these values are logarithms they must first be converted to antilogs and then accumulated. Note, first, that if the single strike SEL is very close to a constant value (within 1 dB), then cumulative SEL = single strike SEL + 10 times log base 10 of the number of strikes N, i.e, 10Log₁₀(N). However if the single strike SEL varies over the sequence of strikes, then a linear sum of the energies for all the different strikes needs to be computed. This is done as follows: divide each SEL decibel level by 10 and then take the antilog. This will convert the decibels to linear units (or uPa²•s). Next compute the sum of the linear units and convert this sum back into dB by taking 10Log₁₀ of the value. This will be the cumulative SEL for all of the pile strikes.

APPENDIX B

Calculation of a Cumulative Distribution Function and Plot for Background Sound Level Analysis

Data from three full 24-hour underwater measurement cycles (minimum) are used to calculate a 30-second Root Mean Square (RMS) value for each 30-second period for the entire dataset. The RMS should be calculated for both the full frequency range recorded as well as a separate dataset which has been passed through a high pass filter thus eliminating those frequencies below 1000 Hz. These datasets are then grouped into 24-hour periods. To determine if the data is approximately log-normal in distribution, each 24-hour period is plotted as a Probability Density Function (PDF). Each 24-hour period can be plotted on the same PDF plot. The plots should be approximately log normal in distribution and thus can be used in the further analysis. Each day of data should have an approximately Gaussian sigmoid shape, the differences between them and the ideal might be hard to spot, but the sigmoid from day to day will show noticeable variation. Data which does not approximate a log normal distribution should be excluded from further analysis.

The Cumulative Distribution Function (CDF) plot is obtained by plotting the normalized cumulative sum vs. the bin location. You can also get the PDF from plotting the normalized bin count vs. the bin location. The normalized bin count is obtained by dividing the count column by (number of data points multiplied by the space between 2 consecutive bins). This provides the integral of the PDF equal to 1. For instructions on creating a histogram in Microsoft Excel, see: <http://www.vertex42.com/ExcelArticles/mc/Histogram.html>



Appendix I—Bubble Curtain Specification

These specifications are verbatim from National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS), Western Washington Fish and Wildlife Office Impact Pile Driving Sound Attenuation Specification

Unconfined Bubble Curtain Specifications:

1. General - An unconfined bubble curtain is composed of an air compressor(s), supply lines to deliver the air, distribution manifolds or headers, perforated aeration pipe, and a frame. The frame facilitates transport and placement of the system, keeps the aeration pipes stable, and provides ballast to counteract the buoyancy of the aeration pipes in operation.
2. The aeration pipe system shall consist of multiple layers of perforated pipe rings, stacked vertically in accordance with the following:

Water Depth (m)	No. of Layers
0 to less than 5	2
5 to less than 10	4
10 to less than 15	7
15 to less than 20	10
20 to less than 25	13

3. The pipes in all layers shall be arranged in a geometric pattern which shall allow for the pile being driven to be completely enclosed by bubbles for the full depth of the water column and with a radial dimension such that the rings are no more than 0.5 meters from the outside surface of the pile.
4. The lowest layer of perforated aeration pipe shall be designed to ensure contact with the substrate without burial and shall accommodate sloped conditions.
5. Air holes shall be 1.6 mm (1/16-inch) in diameter and shall be spaced approximately 20 mm (3/4 inch) apart. Air holes with this size and spacing shall be placed in four adjacent rows along the pipe to provide uniform bubble flux.
6. The system shall provide a bubble flux of 3.0 cubic meters per minute per linear meter of pipe in each layer (32.91 cubic feet per minute per linear foot of pipe in each layer). The total volume of air per layer is the product of the bubble flux and the circumference of the ring:

$$V_t = 3.0 \text{ m}^3/\text{min}/\text{m} * \text{Circum of the aeration ring in m}$$

or

$$V_t = 32.91 \text{ ft}^3/\text{min}/\text{ft} * \text{Circum of the aeration ring in ft}$$

7. Meters shall be provided as follows:

- a. Pressure meters shall be installed at all inlets to aeration pipelines and at points of lowest pressure in each branch of the aeration pipeline.
- b. Flow meters shall be installed in the main line at each compressor and at each branch of the aeration pipelines at each inlet. In applications where the feed line from the compressor is continuous from the compressor to the aeration pipe inlet the flow meter at the compressor can be eliminated.
- c. Flow meters shall be installed according to the manufactures recommendation based on either laminar flow or non-laminar flow.

Confined Bubble Curtain Specifications:

1. General - A confined bubble curtain is composed of an air compressor(s), supply lines to deliver the air, distribution manifolds or headers, perforated aeration pipe(s), and a means of confining the bubbles.
 - a. The confinement (e.g. fabric, plastic or metal sleeve, or equivalent) shall extend from the substrate to a sufficient elevation above the maximum water level expected during pile installation such that when the air delivery system is adjusted properly, the bubble curtain does not act as a water pump (i.e., little or no water should be pumped out of the top of the confinement system).
 - b. The confinement shall contain resilient pile guides that prevent the pile and the confinement from coming into contact with each other and do not transmit vibrations to the confinement sleeve and into the water column (e.g. rubber spacers, air filled cushions).
2. In water less than 15 meters deep, the system shall have a single aeration ring at the substrate level. In waters greater than 15 meters deep, the system shall have at least two rings, one at the substrate level and the other at mid-depth.
3. The lowest layer of perforated aeration pipe shall be designed to ensure contact with the substrate without sinking into the substrate and shall accommodate for sloped conditions.
4. Air holes shall be 1.6 mm (1/16-inch) in diameter and shall be spaced approximately 20 mm (3/4 inch) apart. Air holes with this size and spacing shall be placed in four adjacent rows along the pipe to provide uniform bubble flux.
8. The system shall provide a bubble flux of 3.0 cubic meters per minute per linear meter of pipe in each layer (32.91 cubic feet per minute per linear foot of pipe in each layer). The total volume of air per layer is the product of the bubble flux and the circumference of the ring:

$$V_t = 3.0 \text{ m}^3/\text{min}/\text{m} * \text{Circ of the aeration ring in m}$$

or

$$V_t = 32.91 \text{ ft}^3/\text{min}/\text{ft} * \text{Circ of the aeration ring in ft}$$

5. Meters shall be provided as follows:
 - a. Pressure meters shall be installed at all inlets to aeration pipelines and at points of lowest pressure in each branch of the aeration pipeline.
 - b. Flow meters shall be installed in the main line at each compressor and at each branch of the aeration pipelines at each inlet. In applications where the feed line from the compressor is continuous from the compressor to the aeration pipe inlet the flow meter at the compressor can be eliminated.
 - c. Flow meters shall be installed according to the manufactures recommendation based on either laminar flow or non-laminar flow.

SPECIAL PROVISION 105
CONSTRUCTION AREA

A Construction Area located in the **Town of Milo** has been established by the Maine Department of Transportation (MDOT) in accordance with provisions of 29-A § 2382 Maine Revised Statutes Annotated (MRSA).

- (a) The section of highway under construction in the town of Milo, Piscataquis County on Pleasant River Road, Medford Road, and Pleasant Street/ Lakeview Road over the Pleasant River.
- (b) (Pleasant River Road) station 201+50.00 to station 204+31.26 of the construction plus approaches.
- (c) (Medford Road) station 103+50.00 to station 106+63.61 of the construction plus approaches.
- (d) (Pleasant Street/ Lakeview Road) over the Pleasant River station 9+00.00 to station 28+75.00 of the construction plus approaches.

Per 29-A § 2382 (7) MRSA, the MDOT may “*issue permits for stated periods of time for loads and equipment employed on public way construction projects, United States Government projects or construction of private ways, when within construction areas established by the Department of Transportation. The permit:*

A. Must be procured from the municipal officers for a construction area within that municipality;

B. May require the contractor to be responsible for damage to ways used in the construction areas and may provide for:

(1) Withholding by the agency contracting the work of final payment under contract; or

(2) The furnishing of a bond by the contractor to guarantee suitable repair or payment of damages.

The suitability of repairs or the amount of damage is to be determined by the Department of Transportation on state-maintained ways and bridges, otherwise by the municipal officers;

C. May be granted by the Department of Transportation or by the state engineer in charge of the construction contract; and

D. For construction areas, carries no fee and does not come within the scope of this section.”

The Municipal Officers for the **Town of Milo** agreed that an Overlimit Permit will be issued to the Contractor for the purpose of using loads and equipment on municipal ways in excess of the limits as specified in 29-A MRSA, on the municipal ways as described in the “Construction Area”.

As noted above, a bond may be required by the municipality, the exact amount of said bond to be determined prior to use of any municipal way. The MDOT will assist in determining the bond amount if requested by the municipality.

The maximum speed limits for trucks on any town way will be 25 mph (40 km per hour) unless a higher legal limit is specifically agreed upon in writing by the Municipal Officers concerned.

Milo
Pleasant River Bridge
WIN: 022627.01
August 17, 2020

SPECIAL PROVISION
SECTION 107
TIME
(Contract Time)

The Contract Completion Date for this contract is June 30, 2023.

Special Provision
Section 107
Time

(Supplemental Liquidated Damages for Fabrication Time)

107.8.1 Fabrication Time The Department has budgeted for the following amounts of continuous full time fabrication/shop QA inspection for the following Work components:

<u>Element</u>	<u>Time</u>	<u>Supplemental LD</u>
Structural Plate Girders	80 Calendar Days	\$1,000 per Calendar Day

The Contractor is responsible for requiring their fabricators and suppliers to produce these products for the Work continuously until finished, including any needed actions to correct unacceptable workmanship or materials. If the Department determines that QA inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from the amounts otherwise due to the Contractor. These allowed Fabrication Time begins on the first day of fabrication and runs consecutively until expiration.

If a fabricator or supplier works more than one shift per day and the Department determines that inspection is required for each shift, each shift will count as a calendar day and the LD rate will be the noted amount per shift per Calendar Day in lieu of per Calendar Day.

QA inspector presence is required but not limited to the following activities:

For metal fabrication work: welding, including tack welding, heat correcting, non-destructive examination, assembly verification, and any other times as required in the Standard Specifications or Special Provisions.

SPECIAL PROVISIONS
SECTION 202
REMOVING STRUCTURES AND OBSTRUCTIONS
(Removing Pavement Surface)

The November 2014 Revision of the Standard Specifications, Section 202-Removing Structures and Obstructions, subsection 202.061-Removing Pavement Surface, has been removed and replaced in its entirety by the following:

202.061 Removing Pavement Surface The equipment for removing the bituminous surface shall be a power operated milling machine or grinder capable of removing bituminous concrete pavement to the required depth, transverse cross slope, and profile grade using an automated grade and slope control system. The controls shall automatically increase or decrease the pavement removal depth as required, and readily maintain desired cross slope, to compensate for surface irregularities in the existing pavement course. The equipment shall be capable of accurately establishing profile grades by referencing from a fixed reference such as a 30 foot minimum contact ski (floating beam), 24 foot non-contact ski (floating beam) with 3 or more sensors; or 3 non-contact sensors directly affixed at the fore, mid, and aft points of the milling machine. Systems designed to incorporate a contact sensor located at the mid-point of the milling machine in lieu of the non-contact sensor will be permitted. Grade control sensors shall all be located on the same side. A single sensor, contact or otherwise, shall not be permitted unless otherwise approved by the Department.

The rotary drum shall be a minimum of 7 feet in width and utilize carbide tip tools at a minimum triple wrap configuration. The difference in height from the top of any ridge to the bottom of the groove adjacent to that ridge shall not exceed $\frac{1}{4}$ inch. The forward speed of the milling machine shall be adjusted to produce a milled surface meeting the groove spacing, groove depth, and surface tolerance requirements of this specification. The tools on the revolving cutting drum must be continually maintained and shall be replaced as warranted to provide a uniform pavement texture. The Department may evaluate the texture of the milled surface for information purposes by performing the Sand Patch test according to ASTM E 965.

The Contractor shall locate and remove all objects in the pavement through the work area that would be detrimental to the milling or grinding machine. Any structures or obstructions left within the travel lane or shoulders shall have tapers installed according to Standard Detail 202(01). The finished milled surface will be inspected before being accepted, and any deviations in the profile exceeding $\frac{1}{2}$ inch under a 16 foot string line or straightedge placed parallel to the centerline will be corrected. Any deviations in the cross-slope that exceed $\frac{3}{8}$ inch under a 10 foot string line or straightedge placed transversely to centerline will be corrected. All corrections will be made with approved methods and materials. Any areas that require corrective measures will be subject to the same acceptance tolerances. Excess material that becomes bonded to the milled surface will be removed to the Resident's satisfaction before the area is accepted.

On roadways with adjoining lanes carrying traffic, the Contractor shall remove the pavement surface in each lane per the conditions in Table 1, unless otherwise noted by the Department in Special Provision, Section 105 – Limitations of Operations.

TABLE 1: MILLING CONDITIONS FOR ADJOINING LANES

Depth (At Centerline)	Milling Conditions
Vertical Longitudinal Joint	
2" and less	The Contractor may remove the pavement on a single travel lane width for each production day and will be required to mill the adjacent section of travel lane before the end of the following calendar day.
Greater than 2"	The Contractor shall remove the pavement over the full width of the traveled way section being paved that day.
12:1 Tapered Centerline Joint	
1 ½" to 2"	The Contractor may remove the pavement on a single travel lane width for each production day and will be required to mill the adjacent section of travel lane before weekend or holiday suspension. A maximum unmatched centerline joint length of 0.5 miles will be permitted over the weekend.
Greater than 2"	The Contractor shall remove the pavement on a single travel lane width for each production day and will be required to mill the adjacent section of travel lane before the end of the following calendar day.

The Contractor will be required to remove the pavement over the full width of the mainline traveled way, regardless of highway type, cut depth, or longitudinal joint type prior to Memorial Day, July 4th, Labor Day, suspensions exceeding three days, or other dates as specified by Special Provision, Section 105 – Limitations of Operations.

The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard. Unless otherwise addressed in the contract, the Contractor shall install additional centerline delineation such as a double RPM application, or temporary painted line. The Traffic Control Plan shall be amended to include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile for the entire length of effected roadway section. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, will be considered incidental to the appropriate 652 items.

On roadways with immediately adjacent shoulders, the Contractor shall remove the pavement surface in each lane per the conditions in Table 2, unless otherwise noted by the Department in Special Provision, Section 105 – Limitations of Operations.

TABLE 2: MILLING CONDITIONS FOR THE EDGE OF TRAVELED WAY

Depth (At Edge of Traveled Way)	Conditions
2" and less	The Contractor may leave a vertical edge joint exposed for up to 21 days after milling is performed. The Contractor shall treat vertical edge joints exposed beyond 21 days per the criteria below.
Greater than 2"	The Contractor shall treat vertical edge joints exposed per the criteria below.

When required by Table 2, the Contractor shall treat vertical edge joints through one of the options below:

1. The vertical edge shall be tapered to a zero edge by means of milling a 12:1 transition from the edge of traveled way onto the shoulder before opening the lane to traffic. Tapers shall be removed to form a vertical edge prior to the placement of the new pavement course. No additional payment will be made for tapers, or taper removal.
2. An additional 2 feet of pavement shall be removed from the shoulder to eliminate the vertical edge at the edge of travelway before opening the lane to traffic. Unless otherwise authorized by the Department, no additional payment will be made for the additional milling.
3. A pavement layer shall be placed to reduce the vertical edge to 1 inch or less before opening the lane to traffic.

As a minimum, the use of temporary painted line, or RPMs placed along the edge of traveled way at 200 foot intervals is required for all elevation differentials. When pavement milling is extended into the shoulder (including milled tapers), appropriate channelization devices shall be placed 2 feet outside the edge of the vertical face at intervals not exceeding 600 feet, and RPMs shall be placed on the remaining pavement surface along the vertical edge at 200 foot intervals. Uneven pavement signs shall be placed at a maximum spacing of ½ mile when any pavement milling operations leaves an exposed uneven pavement surface.

Weepers shall be ground across the full width sections adjacent shoulders or remaining pavement surface matching the milled travel way or shoulder milled depth to minimize water ponding in any lanes carrying traffic. Weepers shall typically be 18 - 24" inches in width, installed along each lane, at a frequency of approximately one per half mile at locations as directed by the Resident or in areas that will provide drainage for the milled areas. Installation of weepers will not be paid for directly but will be considered incidental to the contracts pavement removal item. The replacement of mix in the weeper locations shall be performed concurrently within the pavement placement operation closure using the appropriate HMA item produced for the Contract or a MaineDOT approved 9.5mm HMA. There will be no separate payment for repaving the weeper locations as they are considered incidental to the square yard price of the contracts pavement removal item.

Any areas of concern, such as de-lamination or pot-holing shall be identified on a continuous basis as milling progresses. Proper corrective action will be determined by the Resident and paid for under the appropriate contract items, and if required, completed prior to opening lane to traffic. Any issues that arise up to 7 calendar days after being milled will be the responsibility of the MaineDOT unless otherwise noted in Special Provision Section 105 – Limitations Of Operations.

Basis of Payment

The square yard or hourly rental contract price will be full compensation for mobilizing to the site, de-mobilizing from the site, labor, supervision, cleaning of the milled surface, and all other incidentals required to complete the work. Hauling and stockpiling of the material will not be paid for directly, but will be considered incidental to the milling items.

Square Yard: Payment will be made at the contract unit price for the number of square yards removed.

Hourly: Payment will be made at the contract unit price for the number of hours of operation removing pavement surface as directed by the Resident. The equipment used for pavement removal shall be operated at the minimum speed of 50 fpm, unless the Resident directs otherwise for milled surface quality reasons, or traffic control limitations impact pavement removal operations, or site conditions make operations at the prescribed rate unreasonable. Trimming to create a vertical face along curb line, guardrail, or around structures will be considered incidental to the 202.202 items. Additional trimming beyond the incidental work described will be paid under the appropriate rental items as listed in the Contract.

Pay Item

Pay Unit

202.202 Removing Pavement Surface
202.20201 Removing Pavement Surface (Hourly)

S.Y.
Hour

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(Dredge Materials)

Description: Dredge Material (See MaineDOT Standard Specifications § 101.2 Definitions) is regulated as a Special Waste.

Work associated with the Milo – Pleasant River Bridge (#3244) Replacement initiative will require excavation of select Dredge Material from the Pleasant River. It is estimated that approximately 480 cubic yards of dredge will be excavated at the project location. There is onsite Beneficial Use for all Dredge Material.

It is acknowledged that excavation of Dredge for this work may include some boulders. The Maine Department of Environmental Protection (MDEP) has determined that sound boulders (rock 12-inches or more in diameter), that are free of adhering sediment or other contaminants, shall be deemed to be Inert Fill material and shall not be included in Dredge Material Quantities.

CONSTRUCTION REQUIREMENTS

Management: The Contractor shall Beneficially Use all Dredge Material excavated at the Pleasant River Bridge Replacement project in areas adjacent to the dredged water body. No more than 500-cubic yards of Dredge Material may be excavated at the project location.

Method of Measurement: Excavation of Dredge Material will be measured for payment under related Contract items.

Basis of Payment: Payment for the Beneficial Use of Dredge Material will be incidental to the Contract Pay Items.

Payment shall be full compensation for dewatering, managing, transporting, and placement of Dredge Materials.

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(Elastic Inclusion)

203.01 Description - The following sentence is added:

This work shall consist of furnishing all submittals, material and equipment, disposal of material, providing independent laboratory testing, and placing elastic inclusion, complete, as specified herein, or as directed by the Resident. Provide all labor, materials and equipment necessary to complete the work of this Section.

The following subsection is added:

203.02 Materials

a. Elasticized Expanded Polystyrene (EPS): EPS shall have a size tolerance of 1/8 inch for each dimension and conform to the following:

Physical Property	Test Method	Requirements
Compressive strength	D-1621	720 psf +/-60 psf @ 10% strain
Water absorption	C-272	Max. 3% by volume
Insect Resistance	D-3345-74	Resistance to ants, termites, etc.

The EPS shall be elasticized, with a linear-elastic stress-strain behavior up to 10 percent strain and linear proportional stress-strain behavior up to 30 percent strain.

The material shall be produced by a manufacturer with an in-place quality control program which is monitored and certified by an accredited, independent third-party testing organization.

The EPS shall contain no chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) or formaldehyde. It shall be chemically and biologically inert when in contact with acidic and alkaline soils. It shall be treated to prevent insect attack. The EPS shall contain a flame-retardant additive.

Materials shall withstand temperature variations from 0°F to 140°F without deforming and shall maintain their original dimensions and placement without chipping, spalling, or cracking. Material shall not deteriorate because of contact with sodium chloride, calcium chloride, mild alkalis and acids, or other ice control materials.

An available product that meets the specifications above is TerraFlex™ manufactured by Universal Construction Foam in Hunt Valley, Maryland (410-498-0000).

b. Drainage Geocomposite: Drainage Geocomposite shall be installed as shown in the Plans and meet the specification of Special Provision 620 Drainage Geocomposite.

c. Adhesive: Adhesive shall be used to bond the EPS to concrete surfaces and the Drainage Geocomposite to the EPS. It shall be applied according to the EPS manufacturer's recommendations.

d. Backfill Material: Backfill material adjacent to the Drainage Geocomposite shall be as specified in the Contract.

203.021 EPS Submittals

At least ten working days prior to the first delivery of EPS to the site, the Contractor shall provide certification, in the form of a letter prepared by the EPS Supplier, that the EPS will be, or has been, manufactured in accordance with these Specifications and that the specified minimum physical property requirements will be, or have been, met. The Contractor shall also provide laboratory test results specified in Section 203.043. No EPS shall be shipped to the site until such time as all qualification related submittals have been reviewed and approved by the Department.

At least twenty working days prior to first delivery of material to the site, the Contractor shall submit a step by step procedure for and description of the anticipated installation and construction of the EPS in this Contract. The procedure and description shall include concrete surface preparation, type and application of adhesive, the use of temporary shoring and temporary ballasting/stabilizing required to prevent movement during construction prior to placement of backfill, and placement of Drainage Geocomposite and Separation Geotextile.

203.04 General - The following Subsections are added:

203.043 Protection

Exercise care to prevent damage to the material during delivery, storage and construction. Protect the material from (1) Organic solvents such as acetone, benzene, and paint thinner; (2) Petroleum based solvents such as gasoline and diesel fuel; (3) Open flames and (4) Prolonged exposure to sunlight (more than 30 days).

Do not drive or operate heavy machinery or place concentrated loads directly on the elastic inclusion material. Material damaged due to the Contractor's operations will be removed and replaced at no additional cost to the Department.

203.044 Testing

Elasticized EPS shall be tested by an independent commercial laboratory, to verify the material requirements specified herein. The Contractor shall provide written documentation of all tests specified. Documentation shall include style, lot, roll numbers, and actual results of each test. In addition, the name, address, phone number of the testing laboratory, and date of testing shall be

provided. Each EPS block shall be labeled with the manufacturer's name, product type, lot number, date of manufacture and compressive resistance at the relevant elastic strain. Unlabeled blocks will be rejected.

The required testing shall be performed on one sample of EPS pre-production and on two additional specimens selected by the Resident during construction.

The Department reserves the right to take random samples from the project site for additional quality assurance testing. If testing yields unsatisfactory results, the Contractor may be directed to remove and replace potentially defective material at no additional cost to the Department.

203.045 Placement

Preparation of Concrete Surface: Before placement of EPS, concrete surfaces shall be abrasive blast cleaned with a positive contact sandblaster or adhesives manufacturer's recommendation and approved by the Engineer to remove all non-adherent laitance, oil, grease or other foreign or deleterious matter.

Installation of Material: The EPS shall be attached to the back of the concrete surfaces with an adhesive compatible with the material. The concrete surface must be thoroughly dry and clean for adhesive for the application of the EPS. Adhesive shall be applied according to the adhesive manufacturer's recommendation or approval.

The Drainage Geocomposite shall be installed against the backfill side of the EPS after the EPS has been installed. The separation fabric shall cover all exposed surfaces of the EPS. Separation Geotextile (Item 620.60) shall be placed over the top of the EPS, wrapping down a minimum of 12 inches below the top of the Drainage Geocomposite. EPS, Drainage Geocomposite and Separation Geotextile shall be installed according to the manufacturer's recommendations.

After the EPS has been installed and before the work has been accepted, the Contractor and Resident shall perform a visual inspection of EPS coverage and adhesion to the concrete surface. Any area deemed unacceptable and questionable as to remaining in position during the placement of the backfill material shall be replaced or repaired, as required.

203.18 Method of Measurement - The following sentence is added:

Elastic Inclusion furnished and placed in accordance with the Plans and Specifications shall be measured in square yards along the back of backwall surface area, complete-in-place.

203.19 Basis of Payment - The following paragraph is added:

EPS will be paid for at the Contract unit price per square yard which shall be full compensation for cleaning surface, furnishing and installing the EPS material according to these

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Specifications and the manufacturer's recommendations, Separation Geotextile, testing, and for all material, labor, tools, equipment and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
203.4340	Elastic Inclusion	Square Yard

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT PAVEMENT

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<u>4" – Pleasant St./Lakeview Rd. Travel Way, Shoulders, Guardrail Flareouts & Widening Full Depth Construction</u>					
Wearing	12.5 mm	403.208	1½"	1	4,8
Base	12.5 mm	403.213	2½"	1	4,8
<u>1½" – Pleasant St./Lakeview Rd. Travel Way, Shoulders, Guardrail Flareouts & Widening - Mill & Overlay</u>					
Wearing	12.5 mm	403.208	1½"	1	4,8
Shim	9.5 mm	403.211	varies	1/more	2,4,10,11,14
<u>4" – Medford Rd./Pleasant River Rd. Travel Way & Shoulders</u>					
Wearing	12.5 mm	403.208	1½"	1	4,8
Base	12.5 mm	403.213	2½"	1	4,8
<u>Temporary Pavement – As needed</u>					
Temp.	12.5 mm	461.131	1½"	1	28
<u>2" – Drives and Incidentals</u>					
Wearing	9.5 mm	403.209	2"	2/more	2,3,10,11,14

COMPLEMENTARY NOTES

2. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on bridge decks.
3. The design traffic level for mix placed shall be <0.3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
4. The design traffic level for mix placed shall be 0 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
8. Section 106.6 Acceptance, (2) Method B. The Contractor may request a contract modification to change to testing method "A" prior to work starting on this item.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded**" mixture, (using the Primary Control Sieve control point) as defined in 703.09.
14. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.
28. See Special Provision 461 – Temporary Pavement for project specifics.

Tack Coat

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd². Tack used will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.

SPECIAL PROVISION
SECTION 461
LIGHT CAPITAL PAVEMENT
(Temporary Pavement)

Description:

This work shall consist of furnishing all labor, materials and equipment, for the manufacturing, installation and removal of all Temporary Pavement in accordance with these specifications, Special Provision 403 Hot Mix Asphalt, and the Plans. Temporary pavement shall meet all mix design requirements of a 12.5 mm surface mix. If used, this mixture shall be maintained throughout winter maintenance activities through the project limits.

Method of Measurement:

This work will be measured for payment by the Ton, complete in place and accepted.

Basis of Payment:

The work shall be paid for at the contract Ton price for the manufacturing, installation and removal of all Temporary Pavement.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
461.131	Temporary Pavement	Ton

SPECIAL PROVISION
SECTION 501
FOUNDATION PILES
(Dynamic Loading Test)

Description. This work shall consist of driving foundation piles in accordance with Section 501 of the Standard Specifications, except as amended herein.

Under Section 501.046 Driven Pile Resistance, Pile Testing, and Acceptance, replace the subsection labeled Dynamic Pile Tests, with the following:

Dynamic Pile Testing: This work shall consist of coordinating for dynamic pile load testing, furnishing equipment and personnel to drive piles for testing, and providing access to foundation piles for Agents of the Department to perform dynamic pile load tests. Included with this work is Contractor stand-by-time to allow for dynamic pile load testing. Dynamic pile load tests shall be performed on foundation piles noted on the Plans, and as directed by the Engineer. Dynamic pile test measurements shall be recorded for the full length of the test pile during initial drive.

The Contractor will provide the proposed dynamic pile testing schedule to the Resident a minimum of 48 hours before the start of testing. In the event that the Contractor is not able to perform the dynamic testing according to schedule, the cost of the Department's testing Agent shall be paid by the Contractor.

Drilling, Tapping, and Attaching/Removing Instruments: The Contractor shall provide the Department's Agents reasonable means of access to the piles for drilling and tapping purposes. Preference shall be given to drilling and tapping piles on the ground. For drilling and tapping of pipe pile on the ground, the Department's Agent will need up to one hour per pile to be tested. For drilling and tapping of H-pile on the ground, the Department's Agent will need up to 30 minutes per pile to be tested. The Contractor shall assist the Department's Agent by moving pile as necessary to complete drilling and tapping.

If the Contractor elects to place the pile in the leads prior to drilling and tapping, the Department's Agent will need up to one hour per H-pile for drilling and tapping per pile to be tested. The Contractor shall provide reasonable means of access to the piles in the leads for drilling and tapping, as required.

At the Contractor's option, the piles may be drilled and tapped by the Contractor. The drilling and tapping layout for H-piles are shown on Figure 1 of this Section. If the Contractor elects to drill and tap the piles, the holes shall be center-punched prior to drilling. Care shall be taken to prevent over-drilling and rounding of drill-holes. Prior to instrument attachment, the Department's Agent will inspect the drilled and tapped holes for conformance. If determined necessary by the Department's Agent, the holes will be redrilled and tapped by the Department's Agent. No additional time, or compensation, will be allowed for redrilling and tapping of holes done by the Contractor

The Contractor shall provide reasonable means of access to the piles in the leads for attaching and removing instruments to the piles. It is estimated that the Department's Agents will need up to one hour per pile to attach instruments. The Department's Agent will need up to 30 minutes per pile to remove instruments.

General Accommodations: The Contractor shall provide access to electric power for the dynamic test equipment. The power supply at the outlet shall be 10 amp, 115 volt, 55-60 cycle, AC only.

The Contractor shall provide a location that has a line-of-sight to the test piles and is within 75 feet of the piles to be tested, where the Department's Agents can park a wheeled, passenger vehicle (either van or car), from where dynamic pile testing measurements can be processed and analyzed.

The Contractor shall provide access to and a location within 10 feet of the test pile where a representative of the Department can stand and maintain a field driving log for all test piles.

Testing: With the dynamic testing equipment attached, the Contractor shall drive the pile to the minimum tip elevation, or to the required capacity, as shown on the Plans. The stresses in the piles will be monitored during driving with the dynamic test equipment to ensure that the driving stresses do not exceed the allowable stress shown on the Plans. If necessary, the Contractor shall reduce the driving energy transmitted to the pile by using additional cushions or reducing the energy output of the hammer in order to maintain stresses below the allowable driving stresses shown on the Plans. If non-axial driving is indicated by the dynamic test measurements, the Contractor shall immediately realign the driving system.

When directed by the Resident, the Contractor shall wait up to 24 hours and, after instruments are reattached, retap (redrive) load test piles. A cold hammer shall not be used for the redrive. The hammer shall be warmed-up before redrive begins by applying at least 20 blows to another pile. The maximum amount of penetration required during redrive shall be 6 in., or the maximum total number of hammer blows will be 50, whichever occurs first. After retapping, the Resident will either provide the cutoff elevation or specify additional pile penetration and testing. The time for the Department's Agent to attach and remove instruments for retapping shall be as specified herein. The general accommodations provided by the Contractor to perform retap testing shall be as specified herein.

Equipment Damage: The Contractor shall take measures to not damage dynamic pile load testing equipment. Any equipment of the Department's Agents damaged due to Contractor operations, as determined by the Resident, shall be replaced at no additional cost to the Contract. The compensation due to the Department's Agents for equipment damaged by Contractor operations shall be as follows:

Main Cable	\$495.00
Pigtail Cable	\$540.00
Force Transducer	\$670.00
Piezoresistive Accelerometer	\$1225.00
Piezoelectric Accelerometer	\$925.00
Accelerometer Cable	\$350.00

Driving Equipment Malfunction. If pile driving equipment is underperforming as required by the rated energy in the Wave Equation rated energy or not functioning correctly, and a relevant dynamic pile test cannot be completed, then the Contractor will compensate the Department's Agent for travel, unsuccessful field testing and overnight stay (if required) according to the schedule below:

Travel	\$ 700.00 /trip
Field Testing	\$1,275.00 /day
Overnight Stay	\$ 165.00 /day

Pile Acceptance: Acceptance of foundation piles shall be based on the results of the dynamic testing completed by the Department's Agents. Within 24 hours of the completion of testing, the Resident will provide the Contractor a determination of whether the dynamic load test results are acceptable.

501.11 Method of Measurement. The method of measurement for Dynamic Loading Tests, as described herein, shall be as described in Section 501.05g, of the Standard Specifications.

501.12 Basis of Payment. Payment for Providing for Dynamic Loading Tests, as described herein, shall include coordinating for dynamic pile load testing, moving piles on the ground and providing access to drill and tap piles, drilling and tapping piles (at the Contractor's option), providing access to electric power, providing a location to monitor foundation piles during driving, providing access to foundation piles to attach/remove instruments, furnishing equipment and personnel to drive piles for testing, Contractor time to drive test piles, Contractor time to allow replacement of dynamic testing equipment damaged by the Contractor (as determined by the Resident), and Contractor stand-by-time.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
501.239 Dynamic Loading Tests –Providing For	Each

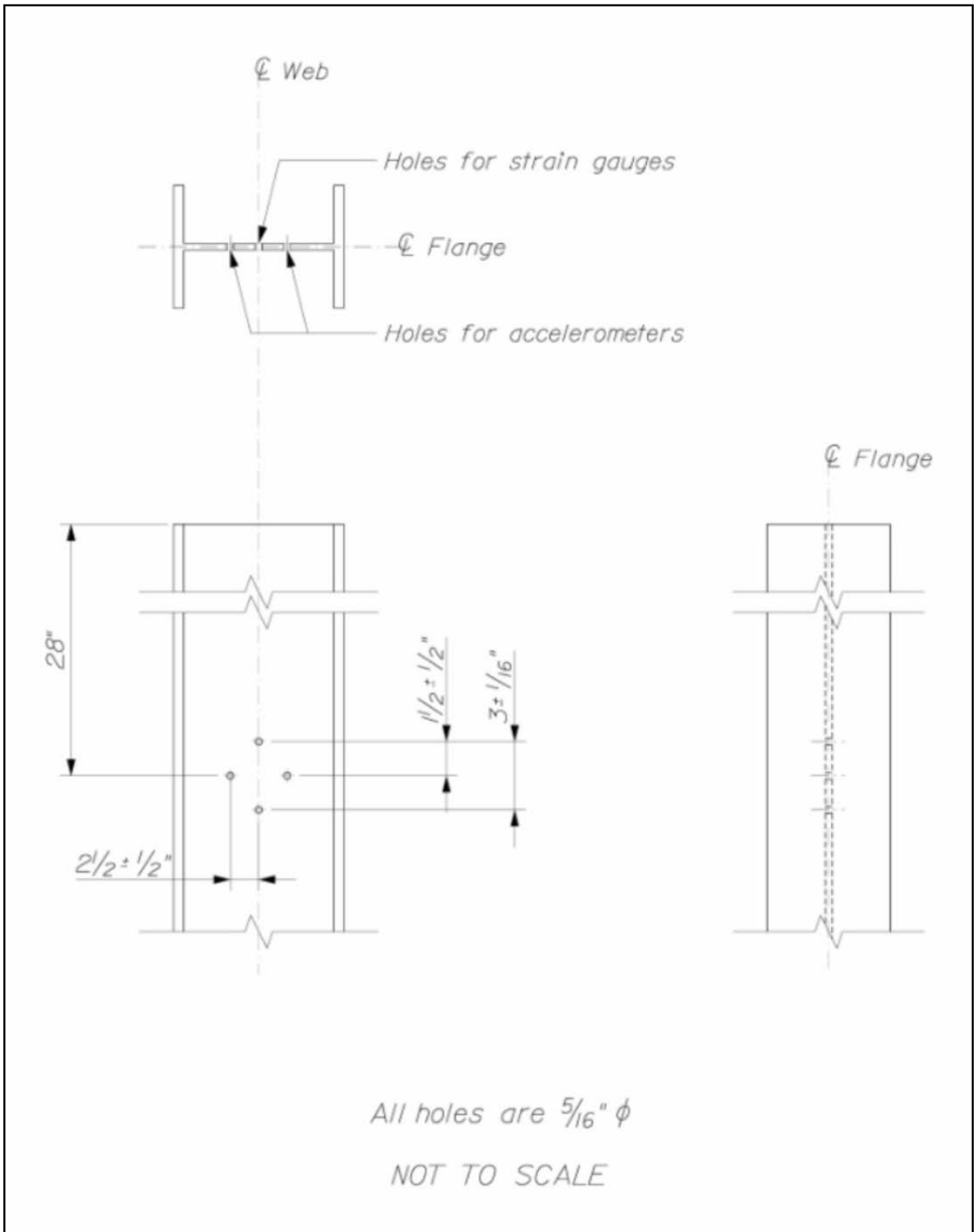


Figure 1. Drill-Hole Layout for H-Piles

SPECIAL PROVISION
SECTION 501
FOUNDATION PILES
(Temporary Casing for Piles)

501.01 Description This work shall consist of providing all materials, equipment, and labor necessary for drilling, boring, or augering holes, temporarily casing holes, and backfilling holes with cushion sand at the locations and to the elevations indicated on the Plans, or as authorized by the Resident. Installation of temporary casing for piles shall be as specified in Section 501 of the Standard Specification, except as amended herein.

501.02 Material Temporary casing shall be of a material sufficiently rigid to keep the pile hole from collapsing. It is the Contractor's responsibility to choose a material that will prevent collapse.

The casing shall be filled with cushion sand meeting the requirements stated on the Plans.

501.03 Quality Control Plan The QCP shall meet the requirements of Subsection 501.03 and address the following additional elements:

- A. Proposed equipment and tooling for drilling, excavation, boring, or auguring holes
- B. Methods for backfilling temporary casing
- C. Construction sequence for installing temporary casing, driving piles and backfilling
- D. Sample construction log

501.042 Equipment Drilling of holes for piles shall use cased-hole drilling methods. The Contractor shall select equipment and tooling capable of drilling in situ soils, rock, cobbles, boulders, buried obstacles, wood and debris whether indicated on the Plans or not. It is the Contractor's responsibility to provide equipment and tooling capable of excavating or drilling to the required elevation. Jetting or blasting is prohibited.

501.043 Location and Alignment Tolerances The bottom elevation of the temporary casings for piles shall vary no more than 6 inches above or 6 inches below the elevation on the Plans.

501.049 Temporary Casing for Piles The Contractor shall drill holes for the piles at locations and to the elevations and dimensions shown on the Plans. Drilled holes for the piles through soil overburden shall be cased with a 30-inch diameter casing.

The Contractor shall maintain a construction log during excavation and drilling. For each pile, the log shall record the following: pile number, date, start time, stop time, personnel, weather, drilling methods, drilling resistance, obstructions, diameter of casing, diameter of drilled hole, and top and bottom elevation of temporary casing.

The Contractor shall dispose of excavated materials removed from socket excavations in accordance with the applicable specification for disposal of excavated materials.

The Contractor shall perform the necessary excavation for the Temporary Casing for Piles and backfilling under this item. No separate payment will be made for excavation of materials of different densities or employment of special tools and procedures necessary to accomplish the excavation.

Weighted tape or other approved methods shall determine final hole depths.

501.0491 Backfill Installation The cased hole shall be filled with cushion sand conforming to the requirements stated on the Plans and in this Special Provision. The casing shall be withdrawn as cushion sand is placed. The Contractor shall maintain the bottom elevation of the casing a minimum of 24 inches below the cushion sand as the cushion sand is dropped and the casing is withdrawn. The cushion sand shall be placed up to the bottom elevation of the abutment.

The Contractor shall backfill the casing after pile installation.

501.05 Method of Measurement Temporary Casing for Piles shall be measured by the lump sum in place and accepted.

501.06 Basis of Payment The accepted quantity of Temporary Casing for Piles will be paid for at the contract unit price per lump sum. Such payment will be full compensation for all materials, equipment, and labor to drill and excavate holes for piles, installation of casing, backfilling, removal of casing, and all incidentals necessary to complete the work specified in the Contract Documents.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
501.821 Temporary Casing for Piles	Lump Sum

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Fiber Reinforced Polymer Bridge Drains)

Description

This work shall consist of design, fabrication and delivery of bridge drains using FRP (Fiber Reinforced Polymer) composite materials in accordance with the plans and this specification.

Applicable Standards and References

The design and construction of FRP composite bridge drain components shall be in accordance with this Methods Specification and the relevant requirements of the following standards and specifications, unless otherwise stipulated in this specification. Standards and specifications specifically cited in the body of the specification establish requirements that shall have precedence over all others. Should the requirements in any reference conflict with those in another, the reference highest on the list shall govern. It is the Contractor's responsibility to obtain clarification of any unresolved ambiguity prior to proceeding with the design or construction.

Specifications

Work shall be done in general accordance with the following specifications:

- a. AASHTO LRFD Guide Specifications for Design of Concrete-Filled FRP Tubes for Flexural and Axial Members, 2012.
- b. American Composites Manufacturing Association, ACMA Code of Standard Practice, First Edition, 2011.
- c. ISO/IEC Guide 58, Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition.
- d. ISO/IEC 17025 General Requirements for the Competence of testing and Calibration Laboratories.

2.3 Standards

- A.) ASTM D 2584. *Standard Test Method for Ignition Loss of Cured Reinforced Resins*. American Society for Testing and Materials, West Conshohocken, PA.
- B.) ASTM D 3039. *Standard Test Method for Tensile Properties of Polymer Matrix Composite Materials*. American Society for Testing and Materials, West Conshohocken, PA.
- C.) ASTM D 3171. *Standard Test Methods for Constituent Content of Composite Materials*. American Society for Testing and Materials, West Conshohocken, PA.

- D.) ASTM D 4385. *Standard Practice for Classifying Visual Defects in Thermosetting Reinforced Plastic Pultruded Products*. American Society for Testing and Materials, West Conshohocken, PA.
- E.) ASTM D 570. *Test Method for Water Absorption of Plastics*. American Society for Testing and Materials, West Conshohocken, PA.
- F.) ASTM E 1356. *Standard Test Method for Assignment of the Glass Transition Temperatures by Differential Scanning Calorimetry*. American Society for Testing and Materials, West Conshohocken, PA.
- G.) ASTM E 1640. *Standard Test Method for Assignment of the Glass Transition Temperature by Dynamic Mechanical Analysis*. American Society for Testing and Materials, West Conshohocken, PA.
- H.) ASTM C 582. *Standard Specification for Contact-Mold Reinforced Thermosetting Plastic (RTP) Laminates for Corrosion-Resistant Equipment*. American Society for Testing and Materials, West Conshohocken, PA.

Material

Materials shall conform to the following requirements:

1. FRP composite drain and pipe material shall meet the requirements of Appendix A.
2. All material and workmanship will meet or exceed the requirements of the ASTM Specifications above.

Construction Requirements

FRP DRAIN MANUFACTURERS

The FRP bridge drains shall be supplied by one of the following companies:

1. Kenway Corporation
2. FRP Bridge Drain Pipe-Westfall Company
3. ACO USA

The above suppliers have been pre-certified by providing materials samples that have been tested in accordance with Appendix A. Other suppliers/manufacturers may become certified if FRP

bridge drain samples are tested in accordance with the requirements in Appendix A along with meeting the following requirements.

All manufactures or fabricators of FRP bridge drain systems/components are required to have a minimum of 3 years of experience in providing FRP composite structural grade products to the general market. Manufacturers need to provide documentation that personnel involved in manufacture/fabrication hold and maintain American Composites Manufactures Association (ACMA) certifications in a minimum of one of the following disciplines; 1) Open Molding, 2) Corrosion, 3) Vacuum Infusion, 4) Closed Molding and that the Manufacturer/Fabricator have an ISO 9001:(current year) or other independent certification to ensure that the Manufacturer's process has been independently audited for conformance.

Design Guide for FRP Composite Scupper Bodies/Drain Inlets

General

The bridge shall use a drain size specified on the plans. See Appendix B for additional details. The bottom of the downspout shall extend a minimum of 12 inches below the bottom of the beams. For bridge decks with an integral concrete wearing surface, the drain pan depth shall be reduced to provide adequate concrete cover.

Deck/interface drain holes.

For bridge decks with pavement and waterproofing membrane, drain holes are required on both sides of the scupper to capture moisture at the interface between the top of the deck and bottom of the asphalt pavement. Three holes one half inch in diameter spaced at 6 inches on center and three and one quarter inches on center below the top of the grate, or pavement thickness, shall be placed on both sides of the scupper. If the holes are created after the molding process by punching, drilling or other mechanical means the holes shall be sealed using a compatible epoxy compound.

Grates

Grates shall be bicycle friendly and designed for HL-93 Live Load unless otherwise specified. Any gaps in grates shall have a maximum clear width of two inches. The minimum clear opening size in any grating shall be 1 1/8" by 1 1/8". Grates shall be stainless steel (ASTM A995) or FRP specifically designed and meeting the HL-93 Live Load requirements.

- Steel grating shall be commercial heavy - duty grating with 1 1/2" x 5/16" bearing bars spaced at 2 3/8" and 3/8" diameter cross bars spaced at 2". The grating shall be centered in the drain top. The bearing bars shall run parallel to traffic.
- FRP grating if used shall provide an opening area at least 75% of steel grating noted above. FRP gratings that do not meet this requirement are not acceptable and shall not be used.

Grates shall be designed so that they can be removed by mechanical means. Fasteners for grates shall be stainless. Where selected grates require orientation to flow, the grates will have orienting features included as required, i.e. for orders of paired drains one drain would have left hand orientation and the other right hand orientation.

Grate Frames

Grate frames may be either integrated FRP composite or of stainless steel construction attached to the scupper/inlet body in a manner consistent with the physical design parameters.

Anchoring provisions

Scupper/inlet anchoring shall be bonded to the grate framing in a manner that provides a load path into the concrete decking. Anchor details to be specified as part of the shop drawings for the bridge drains and be a non-corrosive material.

Cross and Longitudinal Slope Compensation

The scupper/inlet designs shall provide a means to match the grate to the deck angles while maintaining the downspout in a plumb orientation. If purchased in pairs, one left handed version will be required for each right handed version. This may be achieved when a down spout portion is bonded to the scupper body, through the frame attachment to the scupper body.

FRP Composite Drain Sections

Bridge deck downspouts, bridge drain deck extensions, elbows and pipe for under drains shall be constructed using a circular cross section; however other cross sections are allowed with approval of the Fabrication Engineer. Drain sections shall comply with the material requirements set forth in Appendix A and maintain wall thickness of no less than 1/4 inch.

FRP Composite Deck Drain Extensions.

Down spout drain extensions shall be integrated and bonded directly to the scupper bodies.

Transitions through Connections and Components.

All transitions and joints to be manufactured through the use of smooth radius molds. Miter joint and edged transitions are not allowed. All internal joint connections are to be smooth and continuous.

Pigmented FRP Composite Drain Components

Pipes, fittings, bodies and all FRP composite drain system components shall be pigmented through the wall. The color used shall match the color of the beams unless otherwise allowed by the Fabrication Engineer. Paint, gel-coat or any other exterior coating shall not be accepted.

Joint Connections

Joints may be welded using manufacturer recommended adhesives in accordance to the adhesive manufacturer's application procedures. Adhesives must be compatible with the FRP resins, applied in a way that ensures complete bonding and liquid tight sealing of the resins, and be

compatible with the environmental conditions such as temperature, freeze thaw conditions, and wet alkaline environments.

Shop Drawings/Inspection

Drawings The Contractor shall prepare shop detail, erection and other necessary working drawings in accordance with Section 105.7 - Working Drawings. Drawings shall include dimensions and tolerances necessary for manufacture and installation, all hardware, orienting features, anchor details, fastener details, gasket details, cross and longitudinal matching features, joint details, transition details, and material lay-up/composition

Notice of Beginning Work The Contractor shall give the Fabrication Engineer a minimum of two weeks notice before the beginning of work. No work shall be performed before the Fabrication Engineer has been notified. Before beginning work, a pre-fabrication meeting may be held at the discretion of the Fabrication Engineer or, if requested, by the Contractor.

The Contractor shall advise the Fabrication Engineer of the production schedule and any changes to it. If the Contractor suspends work on a project, the Fabrication Engineer will require 48 hours notice prior to the resumption of work.

Inspection Quality Control (Q.C.) is the responsibility of the Contractor. The Quality Control Inspector (Q.C.I.) shall inspect all aspects of the work and shall supervise all nondestructive examination (NDE). The Q.C.I. shall record measurements and test results in a clear and legible manner. The Q.C.I. shall reject materials and workmanship that do not meet contract requirements. The Contractor may perform NDE in addition to the minimum required. The results of all measurements and testing shall be made available to the Quality Assurance Inspector (Q.A.I.).

Quality Assurance (Q.A.) is the prerogative of the Fabrication Engineer. The Q.A.I. will ensure that the Q.C. Department is performing properly, verify documentation, periodically inspect workmanship and witness NDE. Q.A. testing deemed necessary by the Fabrication Engineer in addition to the minimum testing requirements shall be scheduled to minimize interference with the production schedule.

Inspector's Authority The Q.A.I. will have the authority to reject material or workmanship that does not meet the contract requirements. The acceptance of material or workmanship by the Q.A.I. will not prevent subsequent rejection, if found unacceptable.

Rejections Rejected material and workmanship shall be corrected or replaced by the Contractor.

Bill of Materials The Contractor shall provide the Fabrication Engineer with copies of all bills of materials used in the fabrication of the FRP bridge drains.

Packaging, Storage and Shipping of Components

FRP drains shall be stored and handled in accordance with the manufacturer's recommendation. The drains shall be stored above the ground and not be allowed to come into contact with seawater, mud, grease, dirt or other deleterious materials that may be present on the job site.

Installation

The Contractor shall install the FRP drains in accordance with the manufacturer's installation procedures, Contract Plans, and in accordance with the Contractor's installation drawings. FRP bridge drains will be accurately placed at the locations shown on the Plans or as authorized by the Resident. Adequate means shall be provided for securely holding the drains in place during placement of concrete. Any damaged drain shall be repaired or replaced at the Resident's discretion and at no additional cost to the Department.

Method of Measurement

FRP Bridge Drains will be measured by the number of units, for fabrication and delivery. Installation for the drains will be incidental to the Structural Concrete Superstructure item.

Basis of Payment

FRP Bridge Drains will be paid for at the contract unit price. Such payment will include compensation for the fabrication and delivery of the drains in accordance with this specification.

Payment will be under:

<u>Pay Item</u>		<u>Pay Unit</u>
502.77	FRP Bridge Drain –Type E	Each

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Fiber Reinforced Polymer Bridge Drains)

APPENDIX A

A.1 Scope

This section specifies the material composition, properties, test requirements and reports that shall be submitted and approved prior to and after product certification of each FRP composite drain component type, e.g. scupper body or pipe component. The manufacturer is responsible for testing using an approved independent lab per section A.5.3. Once certified the approved product may be manufactured with only internal testing provided the manufacturing process and laminate composition do not change. Changes to process and or composition do require additional testing and product certification. The manufacturer shall report the individual test results per section A.5.3. If the strength is less than the required properties certification will not be granted.

A.2 Material/Laminate Composition

A.2.1 Fibers

Fiber sizings and coupling agents shall be compatible with the resin system used to impregnate them.

A.2.2 Matrix Resins

Commercial grades of vinyl ester and epoxy resin systems are permitted provided the finished product meets the material property requirements before and after durability conditioning as set forth in Section A. Styrene is permitted to be added to the polymer resin during processing. Added styrene shall be less than 10 percent by mass of the polymer resin. The amount of styrene, as a mass percentage of the polymer resin, added during processing shall be reported per Section A.5.3.

A.2.3 Fillers and Additives

Commercial grade inorganic fillers such as kaolin clay, calcium carbonate, and alumina tri-hydrate shall not exceed 20 percent by mass of the polymer resin constituent. Commercial grade additives and process-aids, such as release agents, low profile shrink additives, initiators, promoters, hardeners, catalysts, pigments, fire-retardants, and ultra-violet inhibitors are permitted and depend on the processing method. Shrink additives, if used, shall be less than 20 percent by mass of the polymer resin. Commercial grade inorganic or organic non-woven surfacing mats or veils are permitted.

A.2.4 Fiber Content

Fiber content shall be measured by ASTM D 3171 or ASTM D 2584. Fiber content shall be high enough to meet the mechanical property requirements of the FRP system laminate. The manufacturer shall report the fiber content of the end product by volume or by mass in accordance to the method used. If fiber content is not provided by the manufacturer, then the manufacturer shall provide material data sheets with the weight per unit area of the fiber reinforcement used to manufacture the part.

A.2.5 Glass Transition Temperature

The characteristic value of the glass transition temperature of the composite system, determined in accordance with ASTM E1640, shall be at least 40 degrees Fahrenheit higher than the maximum design temperature, $T_{MaxDesign}$, defined in section 3.12.2.2 of the AASHTO LRFD Guide Specifications for Design of Concrete-Filled FRP Tubes for Flexural and Axial Members, 2012. FRP drain systems may not be used in environments with a service temperature higher than the glass transition temperature of the resin used for their manufacturing.

A.2.6 Longitudinal and Transverse Coefficients of Thermal Expansion (CTE)

The coefficient of Thermal Expansion (CTE) of the tube may vary in the longitudinal and circumferential directions of the component depending on the laminate architecture and type of fibers and resins.

A.3 Mechanical Properties

A.3.1 Tensile Properties

The tensile strength, tensile modulus of elasticity, and ultimate tensile strain shall be determined for both the axial and hoop directions of the tubular components or in transverse and longitudinal directions of inlet bodies, see Section A.5.1 Test Samples. The tensile strength as reported by the manufacturer for product certification shall be measured according to ASTM Test Method D 3039, or other tension test method designed to determine tensile properties of composite laminates at the approved frequency and number of specimens as specified in section A.5.

A.3.4 Compressive Properties

The compressive strength and ultimate compressive strain shall be determined for the longitudinal directions of the tube laminate. The compressive strength and ultimate compressive strains shall be derived from specimens tested in accordance with ASTM Test Method D 6641, or other approved compression test method designed to determine compressive properties of the composite.

A.4 Durability Properties

Material properties shall retain 85% of their baseline values for the material properties listed in Section 2.3 after conditioning for all the durability tests listed below. Durability test methods are adopted from AASHTO Guide Specifications for Design of Bonded FRP Systems for Repair and Strengthening of Concrete Bridge Elements.

Durability property testing is only required for initial product certification and not required for subsequent production orders. The testing is the responsibility of the manufacturer and shall be conducted by an approved independent testing lab per section A.5.2.

A.4.1 Moisture Absorption

Samples will be immersed in distilled water having a temperature of 100 +/-3 degrees Fahrenheit and tested after 1,000 hours of exposure.

A.4.2 Resistance to Alkaline Environment

Samples will be immersed in a saturated solution of calcium hydroxide (pH-11) at ambient temperature of 73 +/-3 degrees Fahrenheit for 1,000 hours prior to testing. The pH level will be monitored and the solution will be maintained as needed.

A.4.3 Alternating Ultraviolet Light and Condensation Humidity

Samples will be conditioned in an apparatus under Cycle I-UV exposure condition according to ASTM G154 Standard Practice. Samples will be tested within two hours after removal from the apparatus.

A.4.4 Freeze-Thaw

Samples will be exposed to 100 repeated cycles of freezing and thawing in an apparatus meeting the requirements of ASTM C666.

A.5 Sampling, Testing & Results.

A.5.1 Test Samples.

The manufacturer is responsible for testing and may use samples in accordance to the test methods and needs of test equipment available. Test coupons may be cut from manufactured products or prepared using identical processes e.g. wet lay-up, vacuum infusion, etc. in a flat sheet, or witness plate, in which test coupons may be cut. Approval of the Fabrication Engineer shall be required for acceptance of test specimens produced by a different manufacturing method. Samples derived from special coupon test sheets shall be taken interior to edge sections 1.5x the width of the required coupon width. Samples shall be prepared from samples oriented with the directions illustrated in figures 1 and 2 for scupper body and drain pipes. For samples from filament wound pipes, samples shall be constructed over polygon mandrels allowing for flat panels to be removed for test purposes. Each test shall use a quantity of three samples. See Tables A.5.4 for tests, material requirements and sample breakdown.

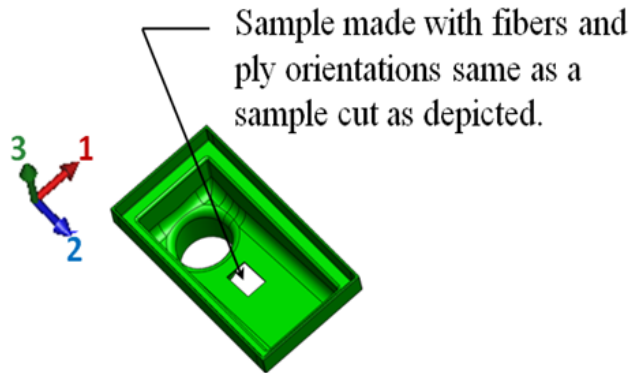


Figure 1.) Scupper Body
Sample Orientations.

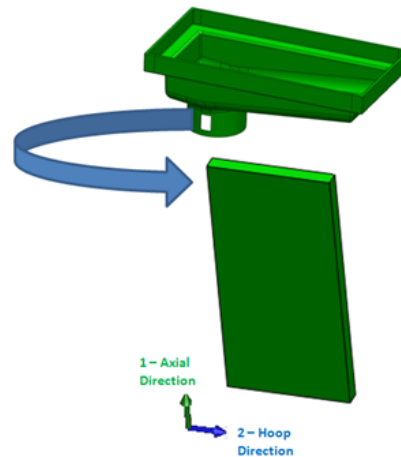


Figure 2.) Drain Pipe
Sample Orientations.

A.5.2 Test Lab Requirements.

All testing of FRP material properties is being conducted in accordance to specified standards. Internal or external testing is to be conducted through laboratory facilities in accordance to ISO/IEC Guide 58, *Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition* and ISO/IEC 17025 *General Requirements for the Competence of testing and Calibration Laboratories* as related by AASHTO document R18 "Recommended Practice for Establishing and Implementing a Quality System for Construction Materials Testing Laboratories."

A.5.3 Production Validation (PV) Testing.

Certification of materials used in FRP drain products must undergo PV testing of the specified material properties before and after environmental conditioning as set forth in Section A.5.4 by an independent lab. PV tests may be conducted internally by the manufacturer for development but are not acceptable for certification. Reported values for the material composition is recorded and reported by the manufacturer, no independent audit is required.

A.5.4 Production Validation Sample Quantities, Minimum Material Properties and Reported Values

The following data shall be reported for material certification. Note that the tables shown use orientations related to FRP scupper or inlet bodies as set forth in Figure 1 of Section A.5.1. When evaluating tubular sections, orientation direction 2 as shown in Figure 2 of Section A.5.1 shall be substituted for orientation direction 3. The required number of samples have been reduced from ASTM requirements.

Table A.5.4.a PV reported material composition data. (Recorded by the manufacturer during the manufacturing process)

Section No.	Characteristic	Applicable Test Standard	Number of Samples	Tolerance	Reported
A.2.2	Styrene, mass percentage of polymer resin	per tolerance	N/A	10% max	
A.2.3	Inorganic fillers, mass percentage of polymer resin.	per tolerance	N/A	20% max	
	Shrink additives, mass percentage of polymer resin.	per tolerance	N/A	20% max	
A.2.4	Fiber Content	ASTM D3171 or ASTM D2584	3	Sufficient to meet mechanical properties	
A.2.5	Glass Transition Temperature	ASTM E1640	3	> Max Design Temperature	

Table A.5.4.b PV Reported Baseline Mechanical Properties

(Conducted by an independent laboratory. Samples as Manufactured w/o additional conditioning per Section A.3)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	10000 (psi)				
		Tensile Modulus of Elasticity			800000 (psi)				
		Ultimate Tensile Strain			0.003 in/in				
	2	Tensile Strength		10000 (psi)					
		Tensile Modulus of Elasticity		800000 (psi)					
		Ultimate Tensile Strain		0.003 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	22000 (psi)				
		Ultimate Compressive Strain			0.003 in/in				
	3	Compressive Strength		3	22000 (psi)				
		Ultimate Compressive Strain			0.003 in/in				

Table A.5.4c PV Reported Mechanical Properties after 1000 hr. Moisture Immersion Conditioning per Section A.4.1

(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

Table A.5.4d PV Reported Mechanical Properties after 1000 hr. of Alkaline Environment Conditioning per Section A.4.2

(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				

Table A.5.4e PV Reported Mechanical Properties after UV Light Conditioning per Section A.4.3 (ASTM G154).
(Conducted by an independent laboratory)

Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		18700 (psi)					
		Ultimate Compressive Strain		0.0025 in/in					

Table A.5.4f PV Reported Mechanical Properties after 100 Freeze-Thaw Cycle Conditioning per Section A.4.4 (ASTM C666).
(Conducted by an independent laboratory)

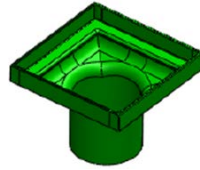
Section No.	Direction	Characteristic	Applicable Test Standard	No. of Samples	Minimum Allowable Values	Independent Lab Reported Values			
						Sample 1	Sample 2	Sample 3	Avg Value
A.3.1	1	Tensile Strength	ASTM D3039	3	8500 (psi)				
		Tensile Modulus of Elasticity			680000 (psi)				
		Ultimate Tensile Strain			0.0025 in/in				
	2	Tensile Strength		8500 (psi)					
		Tensile Modulus of Elasticity		680000 (psi)					
		Ultimate Tensile Strain		0.0025 in/in					
A.3.4	1	Compressive Strength	ASTM D6641	3	18700 (psi)				
		Ultimate Compressive Strain			0.0025 in/in				
	3	Compressive Strength		18700 (psi)					
		Ultimate Compressive Strain		0.0025 in/in					

Milo
Pleasant River Bridge
WIN 022627.00
May 22, 2020

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(Fiber Reinforced Polymer Bridge Drains)

APPENDIX B

Standard Details



Bridge Drain – Symmetric Inlet

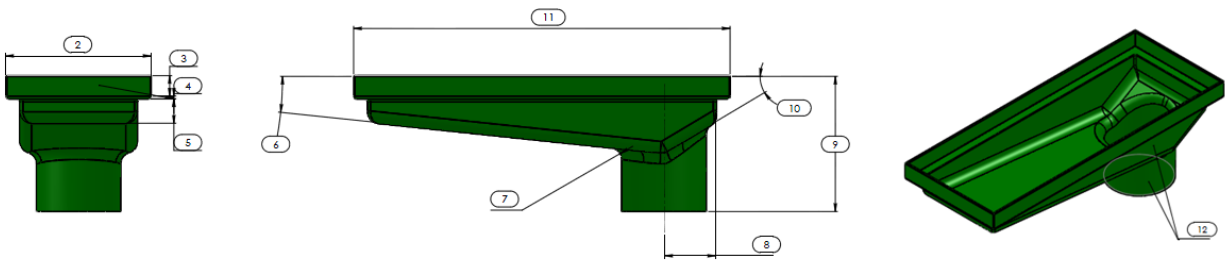
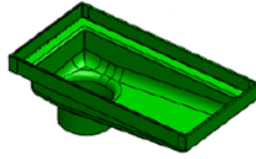


Table B1 Preferred Symmetric FRP Composite Inlet Bodies

Size Designation		A	B	C		
Size Dimensions (Grate Length x Width, Down Spout Diameter)		12x12xØ8	14x14xØ10	18x18xØ12		
Number	Dimension Name	Nominal Dimensions			Nominal Design Tolerance	Manufacturing Tolerance
1	Down Spout Inner Diameter	8"	10"	12"	min	+/- 0.015"
2	Grate Frame Width	12"	14"	18"	+/- 1"	+/- 0.025"
3	Grate Frame Height	As required to contain grate and recessed from deck surface				
4	Grate Frame Flange & Wall Thickness	0.25"	0.25"	0.25"	min	+/- 0.025"
5	Scupper Toe Depth	4"	4"	4"	+1"/-0"	+/- 0.1"
6	Scupper Toe Slope	1:10	1:10	1:10	min	+ 1 degree
7	Scupper Body Radii	2"	2"	2"	min	+0.1"
8	Down Spout Position to Heel	6"	6"	6"	+/- 0.5"	
9	Height	18"	18"	18"	Open	+/- 0.25"
10	Scupper Heel Slope	1:10	1:10	1:10	min	+0.1"
11	Grate Frame Length	12"	14"	18"	+/- 1"	+/- 0.025"
12	Scupper and Down Spout Wall Thickness	0.25"	0.25"	0.25"	min	+0.015"



Bridge Drain-Offset Scupper

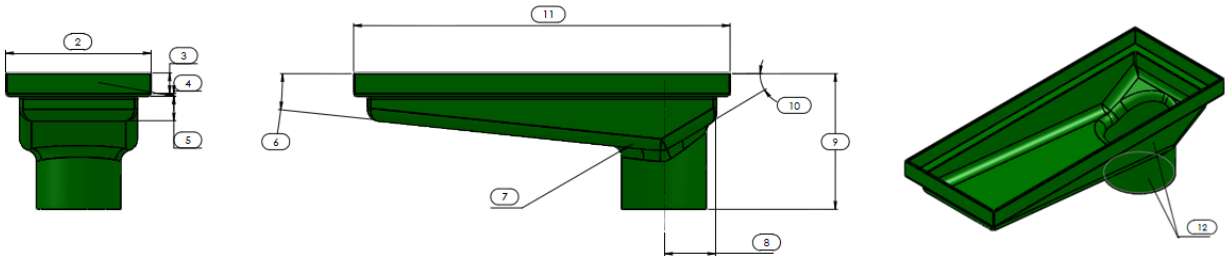


Table B2 Preferred Offset FRP Composite Scupper Bodies

		Size Designation	D	E	F	G			
		Size Dimensions (Grate Length x Width, Down Spout Diameter)	24x12xØ8	30x12xØ10	36x12xØ10	42x12xØ12			
Number	Dimension Name	Nominal Dimensions				Nominal Design Tolerance	Manufacturing Tolerance		
1	Down Spout Inner Diameter	8"	10"	10"	12"	min	+/- 0.015"		
2	Grate Frame Width	12"	12"	12"	12"	+ 2"/-0"	+/- 0.025"		
3	Grate Frame Height	As required to contain grate and recessed from deck surface							
4	Grate Frame Flange & Wall Thickness	0.25"	0.25"	0.25"	0.25"	min	+/- 0.025"		
5	Scupper Toe Depth	4"	4"	4"	4"	+1"/-0"	+/- 0.1"		
6	Scupper Toe Slope	1:10	1:10	1:10	1:10	min	+ 1 degree		
7	Scupper Body Radii	2"	2"	2"	2"	min	+0.1"		
8	Down Spout Position to Heel	6"	6"	6"	6"	+/- 0.5"			
9	Height	13.5"	16"	18"	18"	Open	+/- 0.25"		
10	Scupper Heel Slope	1:10	1:10	1:10	1:10	min	+0.1"		
11	Grate Frame Length	24"	30"	36"	42"	+ 2"/-0"	+/- 0.025"		
12	Scupper and Down Spout Wall Thickness	0.25"	0.25"	0.25"	0.25"	min	+0.015"		

SPECIAL PROVISION
SECTION 502
STRUCTURAL CONCRETE
(QC/QA Acceptance Methods)

CLASS OF CONCRETE	ITEM NUMBER	DESCRIPTION	P	METHOD
A	502.219	Structural Concrete Abutment & Retaining Walls	\$400	A
A	502.239	Structural Concrete Piers	\$400	A
S	502.24	Structural Concrete Piers Placed Under Water	\$0	C
A	502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges	\$400	A
A	502.31	Structural Concrete, Approach Slab	\$0	C
LP	502.49	Structural Concrete Curbs and Sidewalks	\$450	A

P values listed above reflect the price per cubic yard (yd³) for all pay adjustment purposes.

SPECIAL PROVISION
SECTION 530
GLASS FIBER REINFORCED POLYMER
(Reinforcement Bars)

The following is added to the Standard Specifications as Section 530, Glass Fiber Reinforced Polymer, Reinforcement Bars:

530.01 Description This work shall consist of furnishing and placing Glass Fiber Reinforced Polymer (GFRP) reinforcement bars, in accordance with the Plans and as specified herein.

530.02 Materials GFRP reinforcement shall meet the requirements shown in the AASHTO Bridge Design Guide Specifications for GFRP-Reinforced Concrete Bridge Decks and Traffic Railings, including interim revisions, except as shown on the Plans and as stated herein. All GFRP reinforcement shall be deformed or sand coated.

GFRP reinforcement bars shall meet the tensile strength and modulus of elasticity specified on the Plans and shall be one of the following approved products, or approved equal:

Aslan 100 from Hughes Brothers, Inc.
ComBAR from Fiberline Composites, Inc.
MateenBar from Pultron Composites, Ltd.
V-Rod from Pultrall, Inc.

All GFRP reinforcement in the same structural component shall be supplied by the same manufacturer; there shall be no mixing of products from different manufacturers in a component unless permitted in the Contract Documents.

530.021 Documentation The GFRP reinforcement manufacturer shall submit two (2) copies of a Material Certification stating that the GFRP reinforcement incorporated into the Project meets the requirements of this specification to the Resident. The certification shall include the test values and test procedures used to determine the physical properties of the GFRP reinforcement. The certification shall bear the notarized signature of a responsible authorized representative of the GFRP reinforcement manufacturer. Each bundle of GFRP reinforcement shall be identified with the lot number affixed to each bundle by means of a durable tag.

530.03 Schedule of Material When the Plans do not include GFRP reinforcement bar schedules, the Contractor shall submit order lists, shape diagrams and bar layout drawings in accordance with Subsection 105.7 to the Resident for approval. The GFRP reinforcement shall not be ordered until these lists and drawings are approved. Approval shall not relieve the Contractor of full responsibility for the satisfactory completion of the Work specified herein. When the Department allows the use of precast concrete deck panels, or any other significant changes that affect the quantity of GFRP reinforcement, the Contractor shall be responsible for revising the

reinforcement bar schedule; the revised schedule shall be submitted to the Resident for approval. Substitution of different size GFRP reinforcement shall not be permitted except with the written authorization of the Engineer of Record.

When the Department allows the use of precast concrete deck panels, or any other significant changes that affect the quantity of GFRP reinforcement, the Contractor shall be responsible for revising the reinforcement bar schedule; the revised reinforcement schedule shall be submitted to the Resident for approval.

530.04 Fabrication Forming and fabrication tolerances of GFRP reinforcement shall be in conformance with the latest edition of the "Manual of Standard Practice of the Concrete Reinforcing Steel Institute" and the "Detailing Manual of the American Concrete Institute."

530.05 Protection of Material Delivery, storage, and handling of GFRP reinforcement shall be in accordance with the manufacturer's recommendations. The Contractor shall prevent bending, coating the bars with soil, oil, or other material, or other damage to the GFRP reinforcement.

All handling of GFRP reinforcement by mechanical means shall be done by equipment having padded contact areas or using nylon webbing slings. The use of chains or wire rope slings will not be allowed, even when used with padding. All bundles of GFRP reinforcement shall be lifted with a strong back, spreader bar, multiple supports, or a platform bridge to prevent bar-to-bar abrasion from sags in the bundles. Support points during lifting or transporting of bundled GFRP reinforcement shall be spaced at a maximum of 15 feet, or as required by the manufacturer, whichever is more restrictive. Bundled bars shall be strapped together with non-metallic or padded straps in a manner to prevent bar-to-bar abrasion due to relative movement between bars.

Individual bars shall be handled in a manner that prevents damage to the coating due to abrasion or impact, and at no time shall any bar be moved by dragging over any surface, including other reinforcement bars. Sufficient personnel shall be assigned to assure compliance with the provisions above.

Bars loaded for transport shall be loaded and strapped down in a manner that will prevent damage from motion and vibration, to the greatest extent possible. Bundles of bent bars shall be transported strapped to wooden platforms or shall be crated. All individual bundles and layers of bundles shall be separated, and supported by dunnage.

GFRP reinforcement shall be stored on skids or other supports a minimum of 12 inches above the ground surface and protected at all times from damage and surface contamination. The storage supports shall be constructed of wood or other material that will not damage the surface of the GFRP reinforcement or sand coating. Bundles of bars shall be stored on supports in a single layer. Each bundle shall be placed on the supports out of contact with adjacent bundles. If it is expected that GFRP bars will be required to be stored outdoors for a period in excess of two months, then the GFRP reinforcement shall be protected from ultraviolet radiation. Prevent exposure of GFRP to temperatures above 120 degrees Fahrenheit.

All damaged bars shall be repaired in accordance with manufacturer recommendations and inspected and accepted by the Resident prior to placing concrete. All bars with total damage greater than 2 percent of the bar surface area, including previously repaired areas, will be rejected. All cuts, scratches, cracks, abrasions, or other damage, visible to the naked eye, shall be repaired. All bars damaged prior to placement within the formwork shall be repaired prior to GFRP reinforcement placement.

530.06 Placing and Fastening GFRP reinforcement shall be accurately placed in the positions shown on the Plans. Support and firmly tie or otherwise secure GFRP reinforcement in place to prevent settlement, floating upward, or movement in any direction during the placing and setting of the concrete.

Field bending of GFRP reinforcement is not allowed.

Field cutting of GFRP reinforcement will only be permitted with the approval of the Resident. Field cutting shall be with a high-speed cutter, fine blade saw, diamond blade or masonry saw. The GFRP reinforcement shall not be shear cut. The ends of all field cut GFRP reinforcement shall be treated in accordance with the manufacturer's recommendations.

GFRP reinforcement supported on formwork shall rest on stays, blocks, ties, hangers, GFRP or plastic chairs, bar supports made of dielectric material, or other approved materials. Blocks used for this purpose shall be precast Portland cement mortar blocks of approved shape and dimensions. Blocks shall not be used in cases where the blocks will be visible in the finished product. Reinforcement bars used as support bars shall be GFRP, stainless steel, or non-metallic. The use of pebbles, stone, brick, metal pipe, wood, or metal chairs will not be allowed. Wire bar supports will not be allowed. Layers of bars may be separated by precast Portland cement mortar blocks or other approved devices.

Bars shall be fastened together at all intersections except where spacing is less than 1 foot in either direction, in which case, fastening at alternate intersections of each bar with other bars will be permitted providing this will hold all the bars securely in position. Ties shall be soft annealed wire that has been nylon, epoxy or plastic coated. Plastic ties will also be allowed. Placing reinforcement as concrete placement progresses, without definite and secure means of holding the GFRP reinforcement in its correct position, will not be allowed.

When specified on the Plans, GFRP reinforcement shall be anchored into drilled holes. The anchoring material shall be one of the products listed on the Maine Department of Transportation's Qualified Products List and the Contractor shall submit a selected material to the Resident for approval. Installation shall be in accordance with the manufacturer's recommendations.

At each anchor location, existing reinforcement will be located to avoid drilling through existing bars. Where interferences exist, location adjustments will be determined by the Resident. Minimum embedment lengths of reinforcement shall comply with the manufacturer's recommendations for the anchoring material selected. The embedment lengths will be verified by

the Resident before installation of the reinforcement.

Termination of GFRP reinforcement shall be as shown on the Plans. Any exceptions or modifications shall be approved, in writing, by the Engineer of Record.

Immediately before placing concrete, GFRP reinforcement shall be free from all foreign material. Foreign material includes, but is not limited to, dirt, paint, oil, bitumen and dried concrete mortar. Reinforcement shall be inspected and approved by the Resident prior to concrete placement.

530.07 Splicing GFRP Reinforcement shall be spliced as shown on the Plans and as specified herein. No modifications of, or additions to, the splice arrangements shown on the Plans will be allowed without the prior approval of the Resident.

Any additional splices authorized shall be staggered as much as possible. All splices shall be made in a manner that will ensure that not less than 75% of the clear concrete cover and not less than 75% of the minimum clear distance to other reinforcement will be maintained, as compared to the cover and clear distance requirements for the un-spliced reinforcement.

Lapped splices shall be made by placing the bars in contact and tying them together. Ties shall meet the requirements specified herein.

530.08 Method of Measurement GFRP reinforcement will be measured by the linear foot based on the authorized quantity in the Contract or in the approved reinforcement bar schedule submitted by the Contractor. No adjustments to the quantity will be made except to account for changes at the direction of the Resident.

If precast concrete deck panels are used, GFRP reinforcement in precast concrete deck panels will be considered incidental to the deck concrete. No separate payment will be made.

Lap splices that are authorized at the Contractor's request will not be measured for payment.

530.09 Basis of Payment Payment for Glass Fiber Reinforced Polymer, Fabricated and Delivered, shall be considered full compensation for detailing, furnishing, and proper storage of GFRP reinforcement.

Payment for Glass Fiber Reinforced Polymer, Placing, shall be full compensation for installation, adjustment, and supplies related to placing GFRP reinforcement.

Payment for work associated with furnishing and revising the GFRP reinforcement bar schedule, and all expenses incurred by the Contractor and their suppliers to fulfill the requirements specified will be considered incidental to related Contract items. No separate payment will be made.

Payment will not be made for any materials used to hold reinforcement in place or for extra GFRP reinforcement due to substitutions and splices made for the Contractor's convenience.

When GFRP is specified to be anchored into drilled holes, no additional payment will be made for drilling and anchoring GFRP reinforcement or cutting GFRP reinforcement.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
530.30 GFRP, Reinforcement Bars, Fabricated & Delivered	Linear Foot
530.31 GFRP, Reinforcement Bars, Placing	Linear Foot

SPECIAL PROVISION
SECTION 534
PRECAST STRUCTURAL CONCRETE

Revise Paragraph 2 of 534.07 Quality Control to say:

Provide a copy of the Quality System Manual (QSM) to the Fabrication Engineer for review and approval.

Add the following Paragraph to 534.07 Quality Control:

QC staff shall be separate from production and shall not perform any production work.

Revise Sentence 1 in 534.17 Finishing Concrete to say:

Concrete Products shall be finished to meet the Standard Grade finish as described in the MNL-116.

SPECIAL PROVISION
SECTION 620
GEOTEXTILES
(Drainage Geocomposite)

Description This work shall consist of furnishing and placing Drainage Geocomposite as specified herein, as shown on the Plans, and as directed by the Resident. Drainage Geocomposite shall consist of a formed polystyrene core covered on one side with a non-woven, needle-punched polypropylene filter fabric.

Material Drainage Geocomposite must be a composite system consisting of permeable geotextile and three-dimensional polymeric core providing equal flow in two perpendicular directions.

The Contractor shall furnish and install a Drainage Geocomposite as a hydrostatic water relief system. The Drainage Geocomposite shall be tied in to the french drain.

Drainage Geocomposite work shall consist of furnishing all materials and labor required for placing and securing Drainage Geocomposite material, connection pipes, footing drains, and horizontal drains, as shown on the Plans or as directed by the Resident.

Quality Assurance Testing Drainage Geocomposite shall be backed by Letter of Certification from Manufacturer that the flow rate in the plane of the core meets or exceeds the specified flow specified herein and determined by ASTM D4716.

Submittals. The required submittals are as follows:

A. Submit Letter of Certification that material meets or exceeds physical properties per the following table.

B. The design layout of the Drainage Geocomposite including type, spacing, overlap, collection drainage, and other information.

Product Specification The Drainage Geocomposite shall consist of Miradrain 6000XL, Amerdrain 500, or equal that meets or exceeds the following properties:

TYPICAL PROPERTIES	Typical Value	Test Method
Fabric Properties		
Material	Non-woven Polypropylene	
Grab tensile strength	100 lbs	ASTM D4632
Puncture strength	65 lbs	ASTM D4833
AOS	70 sieve	ASTM D4751
Flow Rate	110 gal/min/ft ²	ASTM D4491
Core properties		
Material	Polystyrene	

Compressive strength	15,000 psf	ASTM D1621 (Mod.)
Product properties		
Flow capacity per unit width ¹	16 gpm/ft	ASTM D4716

¹ In Plane Flow Rate, Gradient = 1.0

All numeric values in the above table, except AOS, represent minimum average roll values in the weakest principal direction (i.e., average test results of any roll in a lot sampled for conformance or quality assurance testing shall meet or exceed the minimum values). Values for AOS represent maximum average roll values.

Placement Requirements The Drainage Geocomposite shall be installed by methods approved by the Manufacturer. The Drainage Geocomposite installer shall coordinate installation with the Manufacturer’s representative.

The installer shall place the Drainage Geocomposite at the elevations and alignment shown on the Plans, as noted and as directed by the Resident. The Drainage Geocomposite shall be installed with the fabric side toward the soil.

When installing the Drainage Geocomposite:

- Start at the low point of the wall and attach the panel to the wall.
- Adjacent panels may be:
 - (1) Joined together with the lateral edge of the next/upper panel placed over the flanged edge of the lower panel;
 - (2) Overlap the dimples of the preceding panel onto the dimples of the previous panel by 2 inches.

The Drainage Geocomposite from the adjacent panels shall overlap the preceding panel. The overlap fabric can be adhered with the Manufacturers approved tape or duct tape. The Drainage Geocomposite shall be attached to non-waterproofed walls with contact adhesive, tape or concrete nails. The Drainage Geocomposite shall be permanently secured prior to completion of backfilling. Backfilling shall be placed within seven days of Drainage Geocomposite installation. Backfill to at least 6 inches above the top edge of the Drainage Geocomposite.

The top or terminal edge of the Drainage Geocomposite shall be covered by applying a piece of filter geotextile, meeting the requirements of Standard Specifications Section 722.03, Erosion Control Geotextile, over the edge sufficient in width to prevent soil or other foreign construction materials from intruding into or behind the Drainage Geocomposite panels. The filter geotextile shall be placed to match finished grade.

If necessary, the Drainage Geocomposite and filter geotextile shall be positioned by hand to minimize wrinkles.

Unanticipated subsurface drainage features exposed in the excavation shall be drained independently of the Drainage Geocomposite.

Backfill Requirements Structural backfill meeting the requirements of Standard Specifications Subsection 703.19, Granular Borrow Material for Underwater Backfill, shall be placed immediately against the Drainage Geocomposite. Care shall be taken during the backfill operation not to damage the geotextile surface of the drain. The backfill shall be placed and compacted in accordance with the Plans and as specified herein. Care shall also be taken to avoid excessive settlement of the backfill material. The Drainage Geocomposite, once installed, shall not be exposed for more than seven days prior to backfilling.

Storage Requirements The Contractor shall check the Drainage Geocomposite upon delivery to ensure that the proper material has been delivered. The Contractor shall be responsible for the storage of the Drainage Geocomposite material at the site.

Drainage Geocomposite shall be provided in rolls wrapped with a protective covering and stored in a manner, which protects the material from temperatures greater than 140° F, mud, dirt, dust, and debris. Protective wrapping shall not be removed until immediately before the Drainage Geocomposite is installed.

Drainage Geocomposite material shall be delivered and stored in original packages bearing the Manufacturer's name. The fabric shall not be exposed to direct sunlight for more than seven days during its storage and installation. The Drainage Geocomposite material shall be stored in a clean, dry environment out of the pathway of construction equipment. Each roll of Drainage Geocomposite material shall be labeled to identify the production run.

Repair Requirements Prior to the placement of the Drainage Geocomposite each roll shall be inspected for damage resulting from construction.

Any ripped, torn, or damaged areas of the Drainage Geocomposite material shall be removed and patched by placing a patch large enough to cover the damaged area and provide a sufficient overlap on all sides to fasten. The patch shall be secured to the original Drainage Geocomposite material using the Manufacturers approved methods. If the hole width or tear width across the panel is more than 50% of the width of the material, the damaged area shall be cut out and the two portions of the Drainage Geocomposite material shall be joined in accordance with the placement requirement.

If the damage occurs to the Drainage Geocomposite material during shipping, handling, or installation, the damaged areas shall be cut out and a repair section of Drainage Geocomposite shall be installed at the Contractor's expense.

Method of Measurement Drainage Geocomposite installation shall be measured by the square yard in place and accepted. Measurements will not be made for overlaps, patches, and repairs.

Basis of Payment The accepted quantity of Drainage Geocomposite installed shall be paid for at the contract unit price per square yard, which shall be full compensation for off-loading,

inspection, storage, materials, equipment, and any incidentals necessary to complete the installation.

The cost and placement of the drainage collection pipe will be incidental to the installation of the Drainage Geocomposite.

Payment will be made under:

Pay Item

Pay Unit

620.66 Drainage Geocomposite

Square Yard

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

Subsection 652.3.6 is amended by adding the following requirements:

Long term lane closures will not be permitted. Short-term, daily lane closures with one lane, alternating traffic, will be allowed during daylight, working hours. The Resident must approve all lane closures.

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

Approaches. Approach signing shall include the following signs at a minimum. Field conditions may warrant the use of additional signs as determined by the Resident.

Road Work Next X* Miles
Road Work 500 Feet (Ahead)
End Road Work

Work Areas. At each work site, signs and channelizing devices shall be used as directed by the Resident.

Signs include:

Road Work xxxx¹.
One Lane Road Ahead
Flagger Sign

Other typical signs include:

Be Prepared to Stop
Low Shoulder
Bump
Pavement Ends

The above lists of Approach signs and Work Area signs are representative of the contract requirements. Other sign legends may be required.

Unless otherwise defined in Special Provision 105/107 or submitted and approved in the Traffic Control Plan, the following shall apply:

- The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 2,500 feet at each work area and no more than 4,000 feet for paving and milling work areas.
- Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1 mile of two-way operation.

Temporary Centerline A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings. Failure to apply a temporary centerline daily will result in a Traffic Control Violation and suspension of paving operations until temporary markers are applied to all previously placed pavement.

¹ “Road Work Ahead” to be used in short duration operations and “Road Work xx feet” to be used in stationary operations as directed by the Resident.

SUPPLEMENTAL SPECIFICATIONS
(Corrections, Additions, & Revisions to Standard Specifications – March 2020)

SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

104.2.1 Furnishing of Right-of-Way Revise the last sentence in the first paragraph by removing “105.4.5 – Special Detours” and replacing it with “**105.4.5 – Maintenance of Existing Structures.**”.

SECTION 401
HOT MIX ASPHALT PAVEMENT

401.19 Contractor Quality Control Amend this Section by adding the following to the end:
“**Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all items covered by the QCP as identified in Special Provision 403.**”

SECTION 502
STRUCTURAL CONCRETE

502.09 Forms and Falsework Amend this subsection by adding the subsection title “**502.10 Placing Concrete**” after section “D” Removal of Forms and False work” and after the paragraph beginning with “2. Forms and False work, including blocking...”. So that a new subsection starts and reads:

“**502.10 Placing Concrete**

A. **General Concrete shall not be placed until forms**”

502.1701 Quality Control, Method A and B Revise this Section so that the first paragraph and the first sentence of the second paragraph read:

“**502.17 Quality Control** The Contractor shall control the quality of the concrete through testing, inspection, and practices which shall be described in the QCP, sufficient to assure a product meeting the Contract requirements. The QCP shall meet the requirements of Section 106, Quality, and this specification. No work under this item shall proceed until the QCP is submitted to and approved by the Department. Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all cast-in-place items covered by the QCP, using the P value listed in Special Provision 502. If no P value is listed, a value of \$350, or bid value per cubic yard, whichever is less, shall be used.

502.1701 Quality Control, Method A and B The QCP shall address all elements that affect the quality of the structural concrete including, but not limited to, the following: “

SECTION 606
GUARDRAIL

Amend this section by replacing it with the following:

606.01 Description This work shall consist of furnishing and installing guardrail components in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans or as established. Guardrail is designated as:

31" W-Beam Guardrail - Mid-Way Splice

Galvanized steel w-beam, 8" wood or composite offset blocks, galvanized steel posts

Thrie Beam

Galvanized steel thrie beam, 8" wood or composite offset blocks, galvanized steel posts

Median guardrail shall consist of two beams of the above types, mounted on single posts.

Bridge mounted guardrail shall consist of furnishing all labor, materials, and equipment necessary to install guardrail as shown on the plans. This work shall also include drilling for and installation of offset blocks if specified, and incidental hardware necessary for satisfactory completion of the work.

Remove and Reset and Remove, Modify, and Reset guardrail shall consist of removing the existing designated guardrail and resetting in a new location as shown on the plans or directed by the Resident. Remove, Modify, and Reset guardrail and Modify guardrail include the following guardrail modifications: Removing plate washers at all posts, except at anchorage assemblies as noted on the Standard Details, adding offset blocks, and other modifications as listed in the Construction Notes or General Notes. Modifications shall conform to the guardrail Standard Details.

Bridge Connection shall consist of the installation and attachment of beam guardrail to the existing bridge. This work shall consist of constructing a concrete end post or modifying an existing end post as required, furnishing, and installing a terminal connector, necessary hardware, and incidentals required to complete the work as shown on the plans. Bridge Transition shall consist of a bridge connection and furnishing and installing guardrail components as shown in the Standard Details.

606.02 Materials Materials shall meet the requirements specified in the following Sections of Division 700 - Materials:

Timber Preservative	708.05
Metal Beam Rail	710.04
Guardrail Posts	710.07
Guardrail Hardware	710.08

Guardrail components shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report.

Posts for underdrain delineators shall be “U” channel steel, 8 ft long, 2 ½ lb/ft minimum and have 3/8-inch round holes, 1-inch center to center for a minimum distance of 2 ft from the top of the post.

Reflectorized Flexible Guardrail Markers shall be mounted on all guardrails. A marker shall be mounted onto guardrail posts at the flared guardrail terminal end point and tangent point, both at the leading and trailing ends of each run of guardrail. The marker’s flexible posts shall be gray with either silver-white or yellow reflectors (to match the edge line striping) at the tangents, red at leading ends, and green at trailing ends. Whenever the guardrail terminal is not flared, markers will only be required at the terminal end point. These shall be red or green as appropriate. Markers shall be installed on the protected side of guardrail posts unless otherwise approved by the Resident. Reflectorized flexible guardrail markers shall be from the Department’s Qualified Products List of Delineators. The marker shall be gray, flexible, durable, and of a non-discoloring material to which 3-inch by 9-inch reflectors shall be applied, and capable of recovering from repeated impacts and meeting MASH 16 requirements. Reflective material shall meet the requirements of Section 719.01 for ASTM D 4956 Type III reflective sheeting. The marker shall be secured to the guardrail post with two fasteners, as shown in the Standard Details.

Reflectorized beam guardrail (“butterfly”-type) delineators shall be mounted on all “w”-beam guardrail. The delineators shall be mounted within the guardrail beam at guardrail posts. Delineators shall be fabricated from high-impact, ultraviolet & weather resistant thermoplastic. Reflectorized beam guardrail delineators shall be placed at approximately 62.5 ft intervals or every tenth post on tangents and at approximately 31.25 ft intervals or every fifth post on curves. Exact locations of the delineators shall be as directed by the Resident. On divided highways, the left-hand delineators shall be yellow, and the right-hand delineators shall be silver/white. On two directional highways, the right-hand side shall be silver/white, and no reflectorized delineator used on the left. All reflectors shall have reflective sheeting applied to only one side of the delineator facing the direction of traffic as shown in the Standard Details. Reflectorized sheeting for guardrail delineators shall meet the requirements of Section 719.01.

Single wood post shall be of cedar, white oak, or tamarack, well-seasoned, straight, and sound and have been cut from live trees. The outer and inner bark shall be removed, and all knots trimmed flush with the surface of the post. Posts shall be uniform taper and free of kinks and bends.

Single steel post shall conform to the requirements of Section 710.07 b.

Single steel pipe post shall be galvanized, seamless steel pipe conforming to the requirements of ASTM A120, Schedule No. 40, Standard Weight.

Acceptable multiple mailbox assemblies shall be listed on the Department’s Qualified Products List and shall be MASH 16 tested and approved.

Flared and Tangent w-beam guardrail terminals and guardrail offset blocks shall be from the Department's Qualified Products List. Flared terminals shall be installed with a 4 ft offset as shown in the Manufacturer's installation instructions.

Anchorage assemblies used to anchor trailing ends, radius guardrail, or other ends not exposed to traffic shall meet the applicable standards of "A Guide to Standardized Highway Barrier Hardware" prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Task Force 13 Report, Drawing SEW02a.

Existing materials damaged or lost during adjusting, removing and resetting, or removing, modifying, and resetting, shall be replaced by the Contractor without additional compensation. Existing guardrail posts and guardrail beams found to be unfit for reuse shall be replaced when directed by the Resident.

606.03 Posts Posts for guardrail shall be set plumb in holes or they may be driven if suitable driving equipment is used to prevent battering and distorting the post. When posts are driven through pavement, the damaged area around the post shall be repaired with approved bituminous patching. Damage to lighting and signal conduit and conductors shall be repaired by the Contractor.

When set in holes, posts shall be on a stable foundation and the space around the posts, backfilled in layers with suitable material, thoroughly tamped.

The reflectorized flexible guardrail markers shall be set plumb with the reflective surface facing the oncoming traffic. Markers shall be installed on the protected side of guardrail posts. Markers, which become bent or otherwise damaged, shall be removed and replaced with new markers.

Single wood posts shall be set plumb in holes and backfilled in layers with suitable material, thoroughly tamped. The Resident will designate the elevation and shape of the top. The posts, that are not pressure treated, shall be painted two coats of good quality oil base exterior house paint.

Single steel posts shall be set plumb in holes as specified for single wood posts or they may be driven if suitable driving equipment is used to prevent battering and distorting the post.

Additional bolt holes required in existing posts shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.04 Rails Brackets and fittings shall be placed and fastened as shown on the plans. Rail beams shall be erected and aligned to provide a smooth, continuous barrier. Beams shall be lapped with the exposed end away from approaching traffic.

End assemblies shall be installed as shown on the plans and shall be securely attached to the rail section and end post.

All bolts shall be of sufficient length to extend beyond the nuts but not more than ½ inch. Nuts shall be drawn tight.

Additional bolt holes required in existing beams shall be drilled or punched, but the size of the holes shall not exceed the dimensions given in the Standard Details. Metal around the holes shall be thoroughly cleaned and painted with two coats of approved aluminum rust resistant paint. Holes shall not be burned.

606.045 Offset Blocks The same offset block material is to be provided for the entire project unless otherwise specified.

606.05 Shoulder Widening At designated locations the existing shoulder of the roadway shall be widened as shown on the plans. All grading, paving, seeding, and other necessary work shall be in accordance with the Specifications for the type work being done.

606.06 Mail Box Post Single wood post shall be installed at the designated location for the support of the mailbox. The multiple mailbox assemblies shall be installed at the designated location in accordance with the Standard Details and as recommended by the Manufacturer. Attachment of the mailbox to the post will be the responsibility of the home or business owner.

606.07 Abraded Surfaces All galvanized surfaces of new guardrail and posts, which have been abraded so that the base metal is exposed, and the threaded portions of all fittings and fasteners and cut ends of bolts shall be cleaned and painted with two coats of approved rust resistant paint.

606.08 Method of Measurement Guardrail will be measured by the linear foot from center to center of end posts along the gradient of the rail except where end connections are made to masonry or steel structures, in which case measurement will be as shown on the plans. When connected to radius rail, measurement will be to the end of the last tangent beam.

Guardrail terminal, reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be measured by each unit of the kind specified and installed.

Widened shoulder will be measured as a unit of grading within the limits shown on the plans.

Excavation in solid rock for placement of posts will be paid under force account unless otherwise indicated in the Bid Documents.

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per linear foot for the type specified, complete in place. Reflectorized beam guardrail (“butterfly”-type) delineators will not be paid for directly but will be considered incidental to guardrail items. Reflectorized flexible guardrail marker, terminal end, anchorage assembly, bridge transition, bridge connection, multiple mailbox post, and single post will be paid for at the contract unit price each for the kind specified complete in place.

Guardrail terminals will be paid for at the contract price each, complete in place which price shall be full payment for furnishing and installing all components including the terminal section, posts, offset blocks, "w" beam, cable foundation posts, plates and for all incidentals necessary to complete the installation within the limits as shown on the Standard Details or the Manufacturer's installation instructions. Pay limits for a flared terminal will be 37.5 feet. Pay limits for a tangent terminal will be 50 feet. Each guardrail terminal will be clearly marked with the Manufacturer's name and model number to facilitate any future needed repair. Such payment shall also be full compensation for furnishing all material, excavating, backfilling holes, assembling, and all incidentals necessary to complete the work, except that for excavation for posts or anchorages in solid ledge rock, payment will be made under 109.7.5 – Force Account. Type III Retroreflective Adhesive Sheeting shall be applied to the approach buffer end sections and sized to substantially cover the end section. On all roadways, the ends shall be marked with alternating black and retroreflective yellow stripes. The stripes shall be 3 in wide and sloped down at an angle of 45 degrees toward the side on which traffic is to pass the end section. Guardrail terminals shall also include a set of installation drawings supplied to the Resident.

Anchorage to bridge end posts will be part of the bridge work. Connections thereto will be considered included in the unit bid price for guardrail.

Guardrail to be placed on a radius of curvature of 150 ft or less will be paid for under the designated radius pay item for the type guardrail being placed.

Widened shoulder will be paid for at the contract unit price each complete in place and will be full compensation for furnishing and placing, grading and compaction of aggregate subbase and any required fill material.

Adjust guardrail will be paid for at the contract unit price per linear foot and will be full compensation for adjusting to grade. Payment shall also include adjusting guardrail terminals where required.

Modify guardrail will be paid for at the contract unit price per linear foot and will be full compensation for furnishing and installing offset blocks, additional posts, and other specified modifications; removing, modifying, installing, and adjusting to grade existing posts and beams; removing plate washers and backup plates, and all incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals where required.

Remove and Reset guardrail will be paid for at the contract unit price per linear foot and will be full compensation for removing, transporting, storing, reassembling all parts, necessary cutting, furnishing new parts when necessary, reinstalling at the new location, and all other incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals when required.

Remove, Modify, and Reset guardrail will be paid for at the contract unit price per foot and will be full compensation for the requirements listed in Modify guardrail and Remove and Reset guardrail.

Bridge Connections will be paid for at the contract unit price each. Payment shall include, attaching the connection to the endpost including furnishing and placing concrete and reinforcing steel necessary to construct new endposts if required, furnishing and installing the terminal connector, and all miscellaneous hardware, labor, equipment, and incidentals necessary to complete the work.

Bridge Transitions will be paid for at the contract unit price each. Payment shall include furnishing and installing the thrie beam or “w”-beam terminal connector, doubled beam section, and transition section, where called for, posts, hardware, precast concrete transition curb, and any other necessary materials and labor, including the bridge connection as stated in the previous paragraph.

No payment will be made for guardrail removed, but not reset and all costs for such removal shall be considered incidental to the various contract pay items.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
606.1301 31” W-Beam Guardrail - Mid-Way Splice – Single Faced	Linear Foot
606.1302 31” W-Beam Guardrail - Mid-Way Splice – Double Faced	Linear Foot
606.1303 31” W-Beam Guardrail - Mid-Way Splice, 15’ Radius and Less	Linear Foot
606.1304 31” W-Beam Guardrail - Mid-Way Splice, Over 15’ Radius	Linear Foot
606.1305 31” W-Beam Guardrail - Mid-Way Splice Flared Terminal	Each
606.1306 31” W-Beam Guardrail - Mid-Way Splice Tangent Terminal	Each
606.1307 Bridge Transition (Asymmetrical) – Type IA	Each
606.1721 Bridge Transition - Type I	Each
606.1722 Bridge Transition - Type II	Each
606.1731 Bridge Connection - Type I	Each
606.1732 Bridge Connection - Type II	Each
606.178 Guardrail Beam	Linear Foot
606.25 Terminal Connector	Each
606.257 Terminal Connector - Thrie Beam	Each
606.259 Anchorage Assembly	Each
606.265 Terminal End-Single Rail - Galvanized Steel	Each
606.266 Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275 Terminal End-Double Rail - Galvanized Steel	Each
606.276 Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.353 Reflectorized Flexible Guardrail Marker	Each
606.354 Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356 Underdrain Delineator Post	Each
606.358 Guardrail, Modify	Linear Foot
606.362 Guardrail, Adjust	Linear
Foot	
606.365 Guardrail, Remove, Modify, and Reset	Linear Foot
606.366 Guardrail, Remove and Reset	Linear Foot

606.367	Replace Unusable Existing Guardrail Posts	Each
606.47	Single Wood Post	Each
606.48	Single Galvanized Steel Post	Each
606.50	Single Steel Pipe Post	Each
606.51	Multiple Mailbox Support	Each
606.568	Guardrail, Modify - Double Rail	Linear Foot
606.63	Thrie Beam Rail Beam	Linear Foot
606.64	Guardrail Thrie Beam - Double Rail	Linear Foot
606.65	Guardrail Thrie Beam - Single Rail	Linear Foot
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 15 ft radius and less	Linear Foot
606.72	Guardrail Thrie Beam - over 15 ft radius	Linear Foot
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	Linear
	Foot	
606.74	Guardrail - Single Rail Bridge Mounted	Linear Foot
606.753	Widen Shoulder for Low Volume Guardrail End	Each
606.754	Widen Shoulder for Flared Guardrail Terminal	Each
606.78	Low Volume Guardrail End	Each
606.80	Buried-in-Slope Guardrail End	Each

SECTION 618 SEEDING

618.08 Mulching Revise this Section so that the third sentence reads: “Mulch for Seeding Method Number 1 shall only be cellulous fiber mulch Section 619.04 (b) or straw mulch Section 619.04 (a).”

SECTION 626 FOUNDATIONS, CONDUIT, AND JUNCTION BOXES FOR HIGHWAY SIGNING, LIGHTING, AND SIGNALS

626.034 Concrete Foundations Revise this Section by changing ‘626.037’ to ‘**626.036**’ in the Second Paragraph which begins with “Foundations shall consist of cast-in-place...”.

Revise the 10th paragraph beginning with “Before placing concrete, the required elbows...” by removing “...in accordance with **Standard Specification 633.**”

SECTION 645 HIGHWAY SIGNING

Section 645.023 Sign Support Structures. Under letter “c.”, revise the fifth paragraph beginning with “In addition to the required details...” by removing the words **”and foundation”** from the 5th sentence.

Section 645.08 Method of Measurement. Revise the second paragraph beginning with “Bridge-type, cantilever and...” by removing the words **”including the foundation”** .

Section 645.09 Basis of Payment. Revise the third paragraph beginning with “The accepted bridge-type, cantilever and...” by removing the word **”foundation”** from the second sentence. Add the following sentence to the end of the paragraph **“Conduits, Junction Boxes, and Foundations will be paid for under Section 626.”**

SECTION 681 PRECAST AGGREGATE-FILLED, CONCRETE BLOCK GRAVITY WALL

681.08 Basis of Payment Amend this section by adding the Item Number **“681.10”** in front of the item “Precast Aggregate-Filled Concrete Block Gravity Wall” at the end of the section.

SECTION 703 AGGREGATES

Add the following to the beginning of Section 703 - Aggregates

703.01 Fine Aggregate for Concrete Fine aggregate for concrete shall consist of natural sand or, when approved by the Resident, other inert materials with similar characteristics or combinations thereof, having strong, durable particles. Fine aggregate from different sources of supply shall not be mixed or stored in the same pile nor used alternately in the same class of construction or mix without permission of the Resident.

All fine aggregate shall be free from injurious amounts of organic impurities. Should the fine aggregate, when subjected to the colorimetric test for organic impurities, AASHTO T 21, produce a color darker than the reference standard color solution (laboratory designation Plate III), the fine aggregate shall be rejected.

Fine aggregate shall have a sand equivalent value of not less than 75 when tested in accordance with AASHTO T 176.

Fine aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

The fineness modulus shall not be less than 2.26 or more than 3.14. If this value is exceeded, the fine aggregate will be rejected unless suitable adjustments are made in proportions of coarse and fine aggregate. The fineness modulus of fine aggregate shall be determined by adding the cumulative percentages of material by weight retained on the following sieves: Nos. 4, 8, 16, 30, 50, 100 and dividing by 100.

Fine aggregate, from an individual source when tested for absorption as specified in AASHTO T 84, shall show an absorption of not more than 2.3 percent.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
$\frac{3}{8}$ inch	100
No. 4	95-100
No. 8	80-100
No. 16	50-85
No. 30	25-60
No. 50	10-30
No. 100	2-10
No. 200	0-5.0

703.02 Coarse Aggregate for Concrete Coarse aggregate for concrete shall consist of crushed stone or gravel having hard, strong, durable pieces, free from adherent coatings and of which the composite blend retained on the $\frac{3}{8}$ inch sieve shall contain no more than 15 percent, by weight of flat and elongated particles when performed in accordance with test method ASTM D 4791, Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate, using a dimensional ratio of 1:5.

The coarse aggregate from an individual source shall have an absorption no greater than 2.0 percent by weight determined in accordance with AASHTO T 85 modified for weight of sample.

The composite blend shall have a Micro-Deval value of 18.0 percent or less as determined by AASHTO T 327 or not exceed 40 percent loss as determined by AASHTO T 96.

Coarse aggregate sources shall meet the Alkali Silica Reactivity (ASR) requirements of Section 703.0201.

Coarse aggregate shall conform to the requirements of the following table for the size or sizes designated and shall be well graded between the limits specified.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves			
	A	AA	S	LATEX
Grading	A	AA	S	LATEX
Aggregate Size	1 inch	¾ inch	1½ inch	½ inch
2 inch			100	
1½ inch	100		95-100	
1 inch	95-100	100	-	
¾ inch	-	90-100	35-70	100
½ inch	25-60	-	-	90-100
⅜ inch	-	20-55	10-30	40-70
No. 4	0-10	0-10	0-5	0-15
No. 8	0-5	0-5	-	0-5
No. 16	-	-	-	-
No. 50	-	-	-	-
No. 200	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5

703.0201 Alkali Silica Reactive Aggregates. All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by the Department. Sampling will be performed by the Department from stockpiles located at the Contractor's/supplier's ready mixed concrete plants. Aggregate approvals will be performed on a 3-year cycle, unless the source or character of the aggregate in question has changed within 3 years from the last test date.

A list of pre-approved coarse aggregate and aggregate-cement/pozzolan blends is maintained by the Department and will determine the acceptability of concrete mix designs proposed for use.

As per AASHTO T 303 (ASTM C 1260): Use of a particular coarse or fine aggregate will be allowed with no restrictions when the mortar bars made with this aggregate expand less than or equal to 0.10 percent at 30 days from casting. Use of a particular coarse or fine aggregate will be classified as potentially reactive when the mortar bars made with this aggregate expand greater than 0.10 percent at 30 days from casting. Use of this aggregate will only be allowed with the use of cement-pozzolan blends and/or chemical admixtures that result in mortar bar expansion of less than 0.10 percent at 30 days from casting.

Acceptable pozzolans and chemical admixtures that may be used when an aggregate is classified as potentially reactive include the following:

- a. Class F Coal Fly Ash meeting the requirements of AASHTO M 295.

- b. Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302.
- c. Densified Silica Fume meeting the requirements of AASHTO M 307.
- d. Lithium Hydroxide Monohydrate (LiOH-H₂O).

Pozzolans or chemical admixtures required to offset the effects of potentially reactive aggregates will be incorporated into the concrete at no additional cost to the Department.

Aggregates classified as potentially reactive by the requirements of this specification may be used if certified test results from an accredited independent laboratory utilizing the current AASHTO T 303 (ASTM C 1260) Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, indicating an acceptable alkali-aggregate combination, are submitted to the Department.

703.05 Aggregate for Sand Leveling Aggregate for sand leveling shall be sand of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The aggregate shall meet the grading requirements of the following table.

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
¾ inch	85-100
No. 200	0-5.0

703.06 Aggregate for Base and Subbase The following shall apply to Sections (a.) and (c.) below. The material shall have a Micro-Deval...” and replace with “The material shall have a minimum degradation value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0, the Washington State Degradation DOT Test Method T 113T113, Method of Test for Determination of Degradation Value (January 2009 version) shall be performed), except that the test shall be performed on the reported degradation value will be the result of testing a single specimen from that portion of the sample that passes the ½ in sieve and is retained on the No. 10 sieve. If the material has a Washington Degradation value of less than 15, the material shall be rejected.

The material, minus any reclaimed asphalt pavement used in Section (b.) below shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0 the material may be used if it does not exceed 25 percent loss on AASHTO T 96, Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine. If AASHTO T 96 is used for acceptance of the material, the material shall be retested at intervals of 25%, 50% and 75% completion of the course.

Recycled Asphalt Pavement (RAP) shall not be used for or blended with aggregate base or subbase.

- a. Aggregate for base, Type A and B shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type A	Type B
½ inch	45-70	35-75
¼ inch	30-55	25-60
No. 40	0-20	0-25
No. 200	0-6.0	0-6.0

At least 50 percent by weight of the material retained on the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

Type A aggregate for base shall only contain particles of rock that will pass the 2 inch square mesh sieve.

Type B aggregate for base shall only contain particles of rock that will pass the 4 inch square mesh sieve.

- b. Aggregate for base, Type C shall be crushed ledge or crushed gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The material shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
	Type C
4 inches	100
3 inches	90-100
2 inches	75-100
1 inch	50-80
½ inch	30-60
No. 4	15-40
No. 200	0-6.0

At least 50 percent by weight of the material coarser than the No. 4 sieve shall have at least one fractured face as tested by AASHTO T 335.

- c. Aggregate for subbase shall be sand or gravel of hard durable particles free from vegetable matter, lumps or balls of clay and other deleterious substances. The gradation of the part that passes a 3 inch sieve shall meet the grading requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Type D	Type E
½ in	35-80	
¼ inch	25-65	25-100
No. 40	0-30	0-50
No. 200	0-7.0	0-7.0

Type D aggregate for subbase gravel may contain up to 50 percent by weight Recycled Concrete Aggregate (RCA). When RCA is used, the portion of the resulting blend of gravel and RCA retained on a ½” square mesh sieve shall contain a total of no more than 5 percent by weight of other recycled materials such as brick, concrete masonry block, or asphalt pavement as determined by visual inspection.

RCA shall be substantially free of wood, metal, plaster, and gypsum board as defined in Note 9 in Section 7.4 of AASHTO M 319. RCA shall also be free of all substances that fall under the category of solid waste or hazardous materials.

Aggregate for subbase shall not contain particles of rock which will not pass the 6 inch square mesh sieve.

APPENDIX A TO DIVISION 100

SECTION 1 - BIDDING PROVISIONS

A. Federally Required Certifications By signing and delivering a Bid, the Bidder certifies as provided in all certifications set forth in this Appendix A - Federal Contract Provisions Supplement including:

- Certification Regarding No Kickbacks to Procure Contract as provided on this page 1 below.
- Certification Regarding Non-collusion as provided on page 1 below.
- Certification Regarding Non-segregated Facilities as provided by FHWA Form 1273, section III set forth on page 21 below.
- "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion" as provided by FHWA Form 1273, section XI set forth on page 32 below.
- "Certification Regarding Use of Contract Funds for Lobbying" as provided by FHWA Form 1273, section XII set forth on page 35 below.

Unless otherwise provided below, the term "Bidder", for the purposes of these certifications, includes the Bidder, its principals, and the person(s) signing the Bid. Upon execution of the Contract, the Bidder (then called the Contractor) will again make all the certifications indicated in this paragraph above.

CERTIFICATION REGARDING NO KICKBACKS TO PROCURE CONTRACT Except expressly stated by the Bidder on sheets submitted with the Bid (if any), the Bidder hereby certifies, to the best of its knowledge and belief, that it has not:

(A) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me) to solicit or secure this contract;

(B) agreed, as an express or implied condition for obtaining this contract, to employ or retain the services of any firm or person in connection with carrying out the contract, or;

(C) paid, or agreed to pay, to any firm, organization, or person (other than a bona fide employee working solely for me) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the contract;

By signing and submitting a Bid, the Bidder acknowledges that this certification is to be furnished to the Maine Department of Transportation and the Federal Highway Administration, U.S. Department of Transportation in connection with this contract in anticipation of federal aid highway funds and is subject to applicable state and federal laws, both criminal and civil.

CERTIFICATION REGARDING NONCOLLUSION Under penalty of perjury as provided by federal law (28 U.S.C. §1746), the Bidder hereby certifies, to the best of its knowledge and belief, that:

the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with the Contract.

For a related provisions, see Section 102.7.2 (C) of the Standard Specifications - "Effects of Signing and Delivery of Bids" - "Certifications", Section 3 of this Appendix A entitled "Other Federal Requirements" including section XI - "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion" and section XII. - "Certification Regarding Use of Contract Funds for Lobbying."

B. Bid Rigging Hotline To report bid rigging activities call: **1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

SECTION 2 - FEDERAL EEO AND CIVIL RIGHTS REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 2 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Nondiscrimination & Civil Rights - Title VI The Contractor and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Contractor and subcontractors shall comply with Title VI of the Civil Rights Act of 1964, as amended, and with all State of Maine and other Federal Civil Rights laws.

For related provisions, see Subsection B - "Nondiscrimination and Affirmative Action - Executive Order 11246" of this Section 2 and Section 3 - Other Federal Requirements of this "Federal Contract Provisions Supplement" including section II - "Nondiscrimination" of the "Required Contract Provisions, Federal Aid Construction Contracts", FHWA-1273.

B. Nondiscrimination and Affirmative Action - Executive Order 11246 Pursuant to Executive Order 11246, which was issued by President Johnson in 1965 and amended in 1967 and 1978, this Contract provides as follows.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its efforts to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

Ensure and maintain a working environment free of harassment, intimidations, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all forepersons, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and to maintain a record of the organization's responses.

Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

Provide immediate written notification to the Department's Civil Rights Office when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Design-Builder's efforts to meet its obligations.

Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under B above.

Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligation; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Forepersons, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractor's and Subcontractors with whom the Contractor does or anticipates doing business.

Direct its recruitment efforts, both orally and written to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above describing the openings, screenings, procedures, and test to be used in the selection process.

Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth, both on the site and in other areas of a Contractor's workforce.

Validate all tests and other selection requirements.

Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractor's and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.

Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

C. Goals for Employment of Women and Minorities Per Executive Order 11246, craft tradesperson goals are 6.9% women and .5% minorities employed. However, goals may be adjusted upward at the mutual agreement of the Contractor and the Department. Calculation of these percentages shall not include On-the-Job Training Program trainees, and shall not include clerical or field clerk position employees.

For a more complete presentation of requirements for such Goals, see the federally required document "Goals for Employment of Females and Minorities" set forth in the next 6 pages below.

Start of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES
Federally Required Contract Document

§60-4.2 Solicitations

(d) The following notice shall be included in, and shall be part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to §60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Opportunity (Executive Order 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

<u>Goals for female participation in each trade</u>	6.9%
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Goals for minority participation for each trade

Maine

001 Bangor, ME	0.8%
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Non-SMSA Counties (Aroostook, Hancock, Penobscot, Piscataquis, Waldo, Washington)

002 Portland-Lewiston, ME

SMSA Counties: 4243 Lewiston-Auburn, ME	0.5%
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(Androscoggin)

6403 Portland, ME	0.6%
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(Cumberland, Sagadahoc)

Non-SMSA Counties:
(Franklin, Kennebec, Knox, Lincoln, Oxford, Somerset, York)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be in violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated started and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the Contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department form 941;
 - d. "Minority" includes:

- (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of the North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
 3. If the contractor, is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors for Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a. through p. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical areas where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specific.
 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant, thereto.

6. In order for the non working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as expensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, when possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization's responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment sources or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.

- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment, efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing prior to the date for the acceptance of applications for apprenticeship or the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

- n. Ensure that all facilities and company activities are non segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitation to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7 a through p.). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7 a through p. of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program and reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions take on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, specific minority group of women is underutilized.)
10. The Contractor shall not use the goals and timetables or affirmative action even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementation regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.6.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and location at which the work was performed. Records be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

End of GOALS FOR EMPLOYMENT OF FEMALES AND MINORITIES
Federally Required Contract Document

D. Section '**D Disadvantaged Business Enterprise (DBE) Requirements**' is removed in its entirety. The DBE material is in:

Section 105.10 EQUAL OPPORTUNITY AND CIVIL RIGHTS.

SECTION 3 - OTHER FEDERAL REQUIREMENTS

Unless expressly otherwise provided in the Bid Documents, the provisions contained in this Section 3 of this "Federal Contract Provisions Supplement" are hereby incorporated into the Bid Documents and Contract.

A. Buy America

If the cost of products purchased for permanent use in this project which are manufactured of steel, iron or the application of any coating to products of these materials exceeds 0.1 percent of the contract amount, or \$2,500.00, whichever is greater, the products shall have been manufactured and the coating applied in the United States. The coating materials are not subject to this clause, only the application of the coating. In computing that amount, only the cost of the product and coating application cost will be included.

Ore, for the manufacture of steel or iron, may be from outside the United States; however, all other manufacturing processes of steel or iron must be in the United States to qualify as having been manufactured in the United States.

United States includes the 50 United States and any place subject to the jurisdiction thereof.

Products of steel include, but are not limited to, such products as structural steel, piles, guardrail, steel culverts, reinforcing steel, structural plate and steel supports for signs, luminaries and signals.

Products of iron include, but are not limited to, such products as cast iron grates.

Application of coatings include, but are not limited to, such applications as epoxy, galvanized and paint.

To assure compliance with this section, the Contractor shall submit a certification letter on its letterhead to the Department stating the following:

“This is to certify that products made of steel, iron or the application of any coating to products of these materials whose costs are in excess of \$2,500.00 or 0.1 percent of the original contract amount, whichever is greater, were manufactured and the coating, if one was required, was applied in the United States.”

B. Materials

a. Convict Produced Materials References: 23 U.S.C. 114(b)(2), 23 CFR 635.417

Applicability: FHWA's prohibition against the use of convict material only applies to Federal-aid highways. Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal-aid highway construction project if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987.

Materials obtained from prison facilities (e.g., prison industries) are subject to the same requirements for Federal-aid participation that are imposed upon materials acquired from other sources. Materials manufactured or produced by convict labor will be given no preferential treatment.

The preferred method of obtaining materials for a project is through normal contracting procedures which require the contractor to furnish all materials to be incorporated in the work. The contractor selects the source, public or private, from which the materials are to be obtained (23 CFR 635.407). Prison industries are prohibited from bidding on projects directly (23 CFR 635.112e), but may act as material supplier to construction contractors.

Prison materials may also be approved as State-furnished material. However, since public agencies may not bid in competition with private firms, direct acquisition of materials from a

prison industry for use as State-furnished material is subject to a public interest finding with the Division Administrator's concurrence (23 CFR 635.407d). Selection of materials produced by convict labor as State-furnished materials for mandatory use should be cleared prior to the submittal of the Plans Specifications & Estimates (PS&E).

b. Patented/Proprietary Products References: 23 U.S.C. 112, 23 CFR 635.411

FHWA will not participate, directly or indirectly, in payment for any premium or royalty on any patented or proprietary material, specification, or process specifically set forth in the plans and specifications for a project, unless:

- the item is purchased or obtained through competitive bidding with equally suitable unpatented items,
- the STA certifies either that the proprietary or patented item is essential for synchronization with the existing highway facilities or that no equally suitable alternative exists, or
- the item is used for research or for a special type of construction on relatively short sections of road for experimental purposes. States should follow FHWA's procedures for "Construction Projects Incorporating Experimental Features" ([expermnt.htm](#)) for the submittal of work plans and evaluations.

The primary purpose of the policy is to have competition in selection of materials and allow for development of new materials and products. The policy further permits materials and products that are judged equal may be bid under generic specifications. If only patented or proprietary products are acceptable, they shall be bid as alternatives with all, or at least a reasonable number of, acceptable materials or products listed; and the Division Administrator may approve a single source if it can be found that its utilization is in the public interest.

Trade names are generally the key to identifying patented or proprietary materials. Trade name examples include 3M, Corten, etc. Generally, products identified by their brand or trade name are not to be specified without an "or equal" phrase, and, if trade names are used, all, or at least a reasonable number of acceptable "equal" materials or products should be listed. The licensing of several suppliers to produce a product does not change the fact that it is a single product and should not be specified to the exclusion of other equally suitable products.

c. State Preference References: 23 U.S.C. 112, 23 CFR 635.409

Materials produced within Maine shall not be favored to the exclusion of comparable materials produced outside of Maine. State preference clauses give particular advantage to the designated source and thus restrict competition. Therefore, State preference provisions shall not be used on any Federal-aid construction projects.

This policy also applies to State preference actions against materials of foreign origin, except as otherwise permitted by Federal law. Thus, States cannot give preference to in-State material sources over foreign material sources. Under the Buy America provisions, the States are

permitted to expand the Buy America restrictions provided that the STA is legally authorized under State law to impose more stringent requirements.

d. State Owned/Furnished/Designated Materials References: 23 U.S.C. 112, 23 CFR 635.407

Current FHWA policy requires that the contractor must furnish all materials to be incorporated in the work, and the contractor shall be permitted to select the sources from which the materials are to be obtained. Exceptions to this requirement may be made when there is a definite finding, by MaineDOT and concurred in by Federal Highway Administration's (FHWA) Division Administrator, that it is in the public interest to require the contractor to use materials furnished by the MaineDOT or from sources designated by MaineDOT. The exception policy can best be understood by separating State-furnished materials into the categories of manufactured materials and local natural materials.

Manufactured Materials When the use of State-furnished manufactured materials is approved based on a public interest finding, such use must be made mandatory. The optional use of State-furnished manufactured materials is in violation of our policy prohibiting public agencies from competing with private firms. Manufactured materials to be furnished by MaineDOT must be acquired through competitive bidding, unless there is a public interest finding for another method, and concurred in by FHWA's Division Administrator.

Local Natural Materials When MaineDOT owns or controls a local natural materials source such as a borrow pit or a stockpile of salvaged pavement material, etc., the materials may be designated for either optional or mandatory use; however, mandatory use will require a public interest finding (PIF) and FHWA's Division Administrator's concurrence.

In order to permit prospective bidders to properly prepare their bids, the location, cost, and any conditions to be met for obtaining materials that are made available to the contractor shall be stated in the bidding documents.

Mandatory Disposal Sites Normally, the disposal site for surplus excavated materials is to be of the contractor's choosing; although, an optional site(s) may be shown in the contract provisions. A mandatory site shall be specified when there is a finding by MaineDOT, with the concurrence of the Division Administrator, that such placement is the most economical or that the environment would be substantially enhanced without excessive cost. Discussion of the mandatory use of a disposal site in the environmental document may serve as the basis for the public interest finding.

Summarizing FHWA policy for the mandatory use of borrow or disposal sites:

- mandatory use of either requires a public interest finding and FHWA's Division Administrator's concurrence,
- mandatory use of either may be based on environmental consideration where the environment will be substantially enhanced without excessive additional cost, and
- where the use is based on environmental considerations, the discussion in the environmental document may be used as the basis for the public interest finding.

Factors to justify a public interest finding should include such items as cost effectiveness, system integrity, and local shortages of material.

C. Standard FHWA Contract Provisions - FHWA 1273

Unless expressly otherwise provided in the Bid Documents, the following “Required Contract Provisions, Federal Aid Construction Contracts”, FHWA-1273, are hereby incorporated into the Bid Documents and Contract.

Cargo Preference Act : Contractor and Subcontractor Clauses. “Use of United States-flag vessels: The contractor agrees—“(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.”(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.”(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.”(Reorganization Plans No. 21 of 1950 (64 Stat. 1273) and No. 7 of 1961 (75 Stat. 840) as amended by Pub. L. 91-469 (84 Stat. 1036) and Department of Commerce Organization Order 10-8 (38 FR 19707, July 23, 1973)) [42 FR 57126, Nov. 1, 1977]

The Cargo Preference Act requirements apply to materials or equipment that are acquired for a specific Federal-aid highway project. In general, the requirements are not applicable to goods or materials that come into inventories independent of an FHWA funded-contract. For example, the requirements would not apply to shipments of Portland cement, asphalt cement, or aggregates, as industry suppliers and contractors use these materials to replenish existing inventories. In general, most of the materials used for highway construction originate from existing inventories and are not acquired solely for a specific Federal-aid project. However, if materials or equipment are acquired solely for a Federal-aid project, then the Cargo Preference Act requirements apply.”

Start of FHWA 1273 REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS (As revised through May 1, 2012)

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment,

termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.
- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability.

The following procedures shall be followed:

- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women.

Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even

though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act),

daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a

different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--
Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR
APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL
ACCESS ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

End of FHWA 1273

**The United States Department of Transportation (USDOT) Standard Title VI/Non-Discrimination
Assurances**

DOT Order No. 1050.2A

The **Maine Department of Transportation** (herein referred to as the "Recipient"), **HEREBY AGREES THAT**, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through the **Federal Highway Administration (FHWA)**, is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled Non-discrimination In Federally-Assisted Programs Of The Department Of Transportation-Effectuation Of Title VI Of The Civil Rights Act Of 1964);
- 28 C.F.R. Section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity, "for which the Recipient receives Federal financial assistance from DOT, including the FHWA.

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its Federally assisted **Highway Program**:

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23(b) and 21.23(e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated, or will be (with regard

to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.

2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all **Federal-Aid Highway Program activities** and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

"The **Maine Department of Transportation**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."


3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.
4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.
5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.
6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.
7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:
 - a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
 - b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:

- a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
 - b. the period during which the Recipient retains ownership or possession of the property.
9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.
10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, the **Maine Department of Transportation** also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the **FHWA and USDOT** access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the **FHWA and USDOT**. You must keep records, reports, and submit the material for review upon request to **FHWA and USDOT**, or its designee in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The **Maine Department of Transportation** gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the **Federal Aid Highway Program**. This ASSURANCE is binding on [*insert State*], other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in the **Federal Aid Highway Program**. The person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

MAINE DEPARTMENT OF TRANSPORTATION
(Name of Recipient)

by 
 Bruce A. Van Note, Commissioner

DATED 2/13/19

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, *Federal Highway Administration (FHWA)*, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the *FHWA* to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the *FHWA*, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the *FHWA* may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the *FHWA* may direct as a means of enforcing such provisions including sanctions for

noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX B

CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the **Maine Department of Transportation** will accept title to the lands and maintain the project constructed thereon in accordance with **23 U.S. Code § 107**, the Regulations for the Administration of **the Federal Aid Highway Program**, and the policies and procedures prescribed by the **FHWA** of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **Maine Department of Transportation** all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto **Maine Department of Transportation** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the **Maine Department of Transportation**, its successors and assigns.

The **Maine Department of Transportation**, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that the **Maine Department of Transportation** will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

APPENDIX C

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the **Maine Department of Transportation** pursuant to the provisions of Assurance 7(a):

- A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:
 1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, **Maine Department of Transportation** will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*
- C. With respect to a deed, in the event of breach of any of the above Non-discrimination covenants, the **Maine Department of Transportation** will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the **Maine Department of Transportation** and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by the **Maine Department of Transportation** pursuant to the provisions of Assurance 7(b):

- A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
- B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non discrimination covenants, the **Maine Department of Transportation** will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*
- C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, the **Maine Department of Transportation** will there upon revert to and vest in and become the absolute property of the **Maine Department of Transportation** and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq.).

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM**

(For use with DEP Regulation, Natural Resources Protection Act - Permit by Rule Standards, Chapter 305)

APPLICANT INFORMATION (Owner)				AGENT INFORMATION (If Applying on Behalf of Owner)			
Name:	Maine Department of Transportation			Name:	Andrea F Brady		
Mailing Address:	16 State House Station			Mailing Address:			
Town:	Augusta			Town:			
State & Zip Code:	ME 04333			State & Zip Code:			
Daytime Phone #:			Ext:	Daytime Phone #:	(207) 592-0523		Ext:
Email Address:				Email Address:	andrea.f.brady@maine.gov		
PROJECT INFORMATION							
Part of a larger project? (check 1):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	After the Fact? (check 1):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Project involves work below mean low water? (check 1):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name of waterbody:	Pleasant River
Project Town:	Milo	Town Email Address:				Map and Lot Number:	
Brief Project Description:	Replace Pleasant River Bridge #3244 with a 2-span bridge located approx. 75' upstream of existing bridge. Road will be realigned and existing culvert on Lakeview Rd will be replaced. Temp work trestle will provide constr. access						
Project Location & Brief Directions to Site:	Pleasant River Bridge #3244 in Milo carrying Pleasant Street over Pleasant River, located 0.09 mile west of Pleasant River Road.						

PERMIT BY RULE (PBR) SECTIONS (Check at least one): I am filing notice of my intent to carry out work that meets the requirements for Permit-by-Rule (PBR) under DEP Rules, [Chapter 305](#). I and my agent(s), if any, have read and will comply with all of the standards in the Sections checked below.

- | | | |
|---|---|---|
| <input type="checkbox"/> Sec. (2) Act. Adj. to Prot. Natural Res. | <input type="checkbox"/> Sec. (9) Utility Crossing | <input type="checkbox"/> Sec. (16) Coastal Sand Dune Projects |
| <input type="checkbox"/> Sec. (3) Intake Pipes | <input type="checkbox"/> Sec. (10) Stream Crossing | <input type="checkbox"/> Sec. (17) Transfer/Permit Extension |
| <input type="checkbox"/> Sec. (4) Replacement of Structures | <input checked="" type="checkbox"/> Sec. (11) State Transportation Facilities | <input type="checkbox"/> Sec. (18) Maintenance Dredging |
| <input type="checkbox"/> Sec. (6) Movement of Rocks or Veg. | <input type="checkbox"/> Sec. (12) Restoration of Natural Areas | <input type="checkbox"/> Sec. (19) Act. Near SVP Habitat |
| <input type="checkbox"/> Sec. (7) Outfall Pipes | <input type="checkbox"/> Sec. (13) F&W Creat./Water Qual. Improv. | <input type="checkbox"/> Sec. (20) Act. Near Waterfowl/Bird Habitat |
| <input type="checkbox"/> Sec. (8) Shoreline Stabilization | <input type="checkbox"/> Sec. (15) Public Boat Ramps | |

NOTE: Municipal permits also may be required. Contact your local code enforcement office for information. Federal permits may be required for stream crossings and for projects involving wetland fill. Contact the Army Corps of Engineers at the Maine Project Office for information.

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS AND FEE

- Attach** all required submissions for the PBR Section(s) checked above. The required submissions for each PBR Section are outlined in Chapter 305 and may differ depending on the Section you are submitting under.
- Attach** a location map that clearly identifies the site (U.S.G.S. topo map, Maine Atlas & Gazetteer, or similar).
- Attach Proof of Legal Name** if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's registration information (available at <http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x>). Individuals and municipalities are not required to provide any proof of identity.

FEE: I will pay the Permit-by-Rule fee (<https://www.maine.gov/dep/feeschedule.pdf>) by: **State Agency - Central Billing WIN 22627**

- Check** – Fill in all the information below and mail a copy of this form (without attachments) and a check made payable to “Treasurer, State of Maine,” to: Maine DEP, 17 State House Station, Augusta, ME 04333-0017.
- Credit Card** – Fill in the name and phone number of the person who will pay below and the DEP will call to collect the fee.

Name: _____ **Phone:** _____ **Ext:** _____ **Check #:** _____ **Email Filing Date:** _____

Signature & Certification:

- I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules.
- I understand that this PBR becomes effective 14 calendar days after receipt by the Department of this completed form, the required submissions, and fee, *unless the Department approves or denies the PBR prior to that date.*

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in the Chapter 305 rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant (may be typed): Andrea F. Brady on behalf of MaineDOT	Date: 6/12/20
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Keep a copy as a record of permit. Email this completed form with attachments to DEP at: DEP.PBRNotification@maine.gov. DEP will send a copy to the Town Office as evidence of DEP's receipt of notification. No further authorization will be issued by DEP after receipt of notice. A PBR is valid for two years, except Section 4, “Replacement of Structures,” are valid for three years. **Work carried out in violation of the Natural Resources Protection Act or any provision in Chapter 305 is subject to enforcement.**

Jack A. Cull

Approved 6/15/2020

Maine PBR Section 11 Supporting Information

Project Summary

Project Scope: Bridge Replacement

Project Description: MaineDOT proposes to replace the Pleasant River Bridge #3244 with a 2-span bridge located approximately 75' upstream of the existing bridge. The bridge would carry 11' travel lanes and 6' shoulders for a 34' roadway width. The bridge will be supported by concrete abutments and a concrete pier. A mass concrete wall pier founded on piles to accommodate ice and scour will be placed mid-river. The concrete abutments will be founded on 14-inch H-piles on upland adjacent to the river.

The roadway will be realigned to make Pleasant Street to Lakeview Road a through movement, and Medford Road will be aligned to intersect with Pleasant Street and Lakeview Road at a 90 degree angle. The existing culvert on Lakeview Road will be replaced with a realigned culvert.

A temporary work trestle, supported by temporary pile bents, will be constructed to provide access to the middle of the river for construction of the center pier. The trestle will be located upstream of the current bridge but downstream of proposed location of replacement bridge. A sheet pile cofferdam will be installed to construct the concrete pier. Turbidity curtains or cofferdams will be used for abutment construction, depending upon time of year and water level. Riprap placed in front of the new bridge abutments will be placed in the water up to 25 feet from the shoreline.

The existing bridge will be used to maintain traffic during construction of the replacement bridge and will then be removed. Construction would occur over two construction seasons beginning in 2021.

Funding Sources: State and Federal

Resource Impacts (in square feet):

Impact Type	RUS	PEM
Permanent	3260	1545
Temporary	2340	1565

Proposed In-water Work Window: July 15 – September 30; December 1 – March 31.

Maintenance of Traffic: The existing bridge will be used to maintain traffic during construction of the replacement bridge and will then be removed.

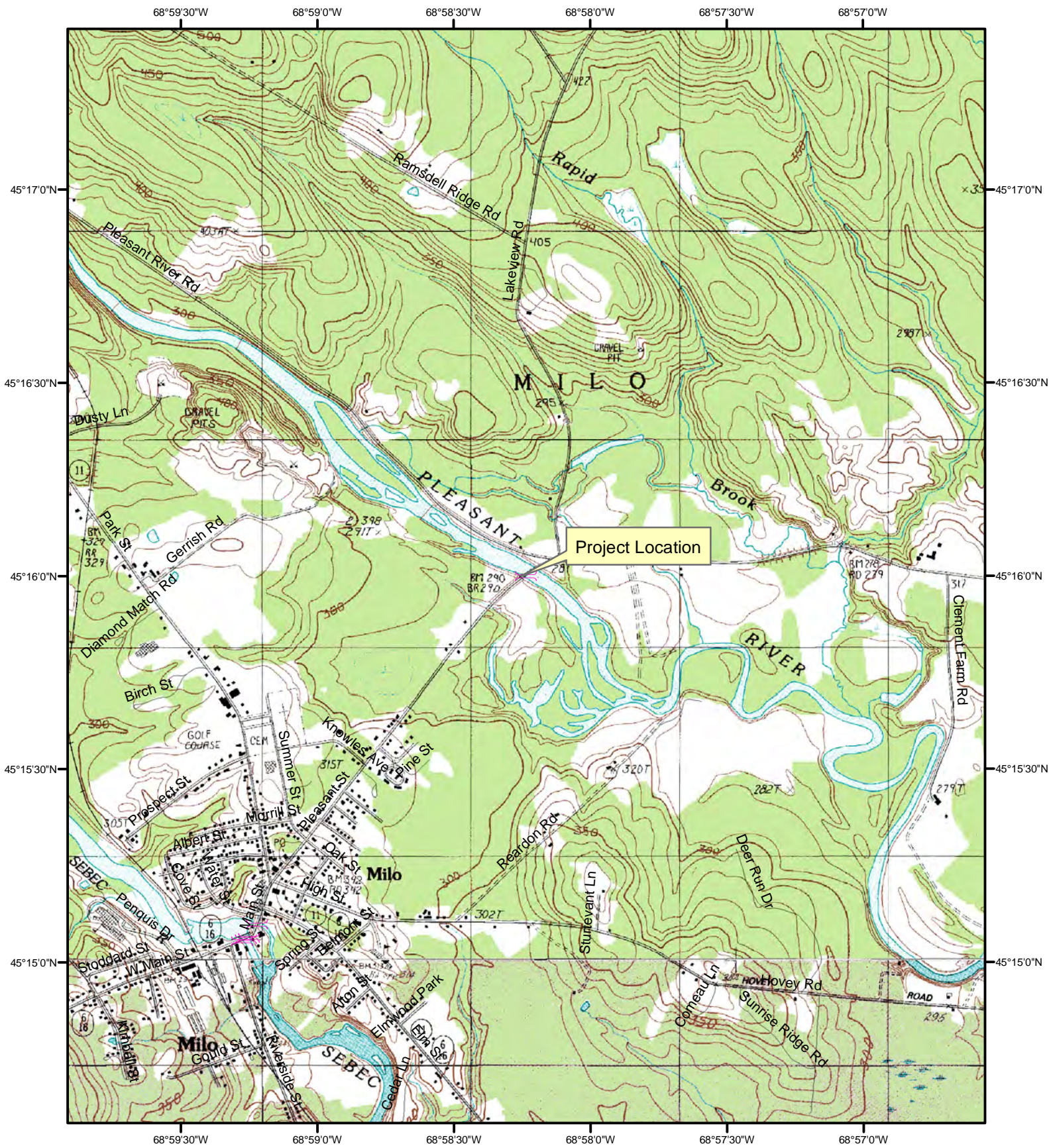
Mitigation: At the request of NOAA, MaineDOT agreed to provide compensatory mitigation for permanent project impacts to spawning and rearing habitat at the site under the Maine Atlantic Salmon Program.

Avoidance and Minimization: MaineDOT has avoided or minimized impacts wherever possible. The in-water footprint of the new bridge has been minimized. Concrete abutments will be founded on H-piles on upland adjacent to the river. The activity-specific in-water work windows have been designed to minimize impacts to sensitive habitats and species while also minimizing the overall time of disruption to the resource.

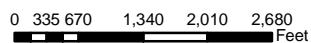
Erosion & Sedimentation Control Best Management Practices: The project will be performed in accordance with erosion control measures conforming with the latest versions of the *State of Maine Department of Transportation Standard Specifications for Highways and Bridges* and the *Department of Transportation's Best Management Practices for Erosion and Sediment Control*.

Additional Information Supporting PBR Application

Location Map, Photographic Log, and Proposed Project Plans are included below.



-68.97061
45.26655



MDOT WIN 22627.00
Milo- Pleasant River Bridge #3244
bridge improvements



**Photographic Log
Milo Bridge Replacement MaineDOT WIN 22627**



Top: view upstream of bridge from east bank; Bottom: view downstream of bridge from west bank

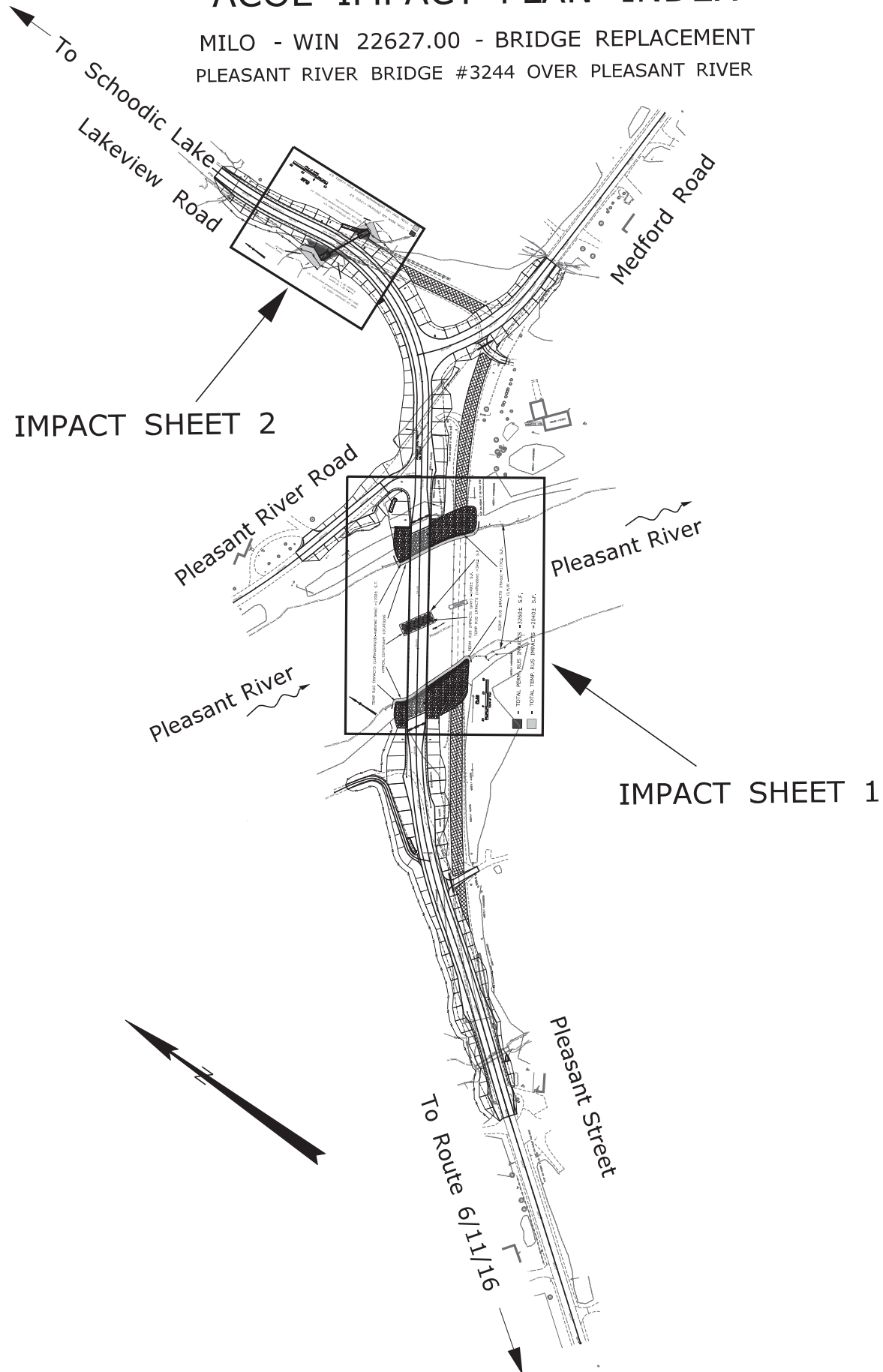


Top: view upstream from west bank; Bottom: view downstream showing river substrate and mid-stream bar in lee of center pier

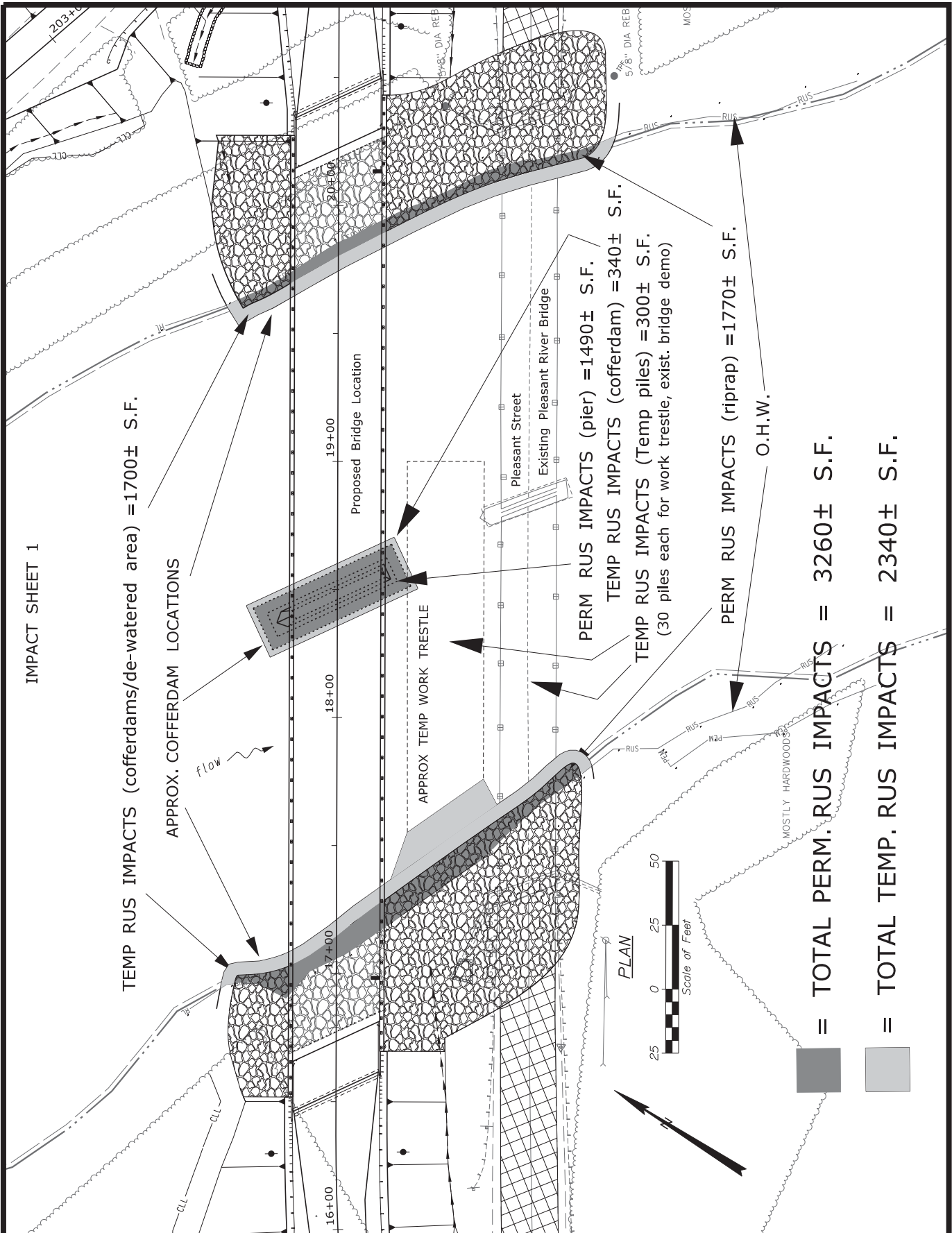
ACOE IMPACT PLAN INDEX

6/8/2020

MILO - WIN 22627.00 - BRIDGE REPLACEMENT
PLEASANT RIVER BRIDGE #3244 OVER PLEASANT RIVER



IMPACT SHEET 1



■ = TOTAL PERM. RUS IMPACTS = 3260± S.F.

■ = TOTAL TEMP. RUS IMPACTS = 2340± S.F.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Pleasant Street
PISCATAQUIS COUNTY

MILO

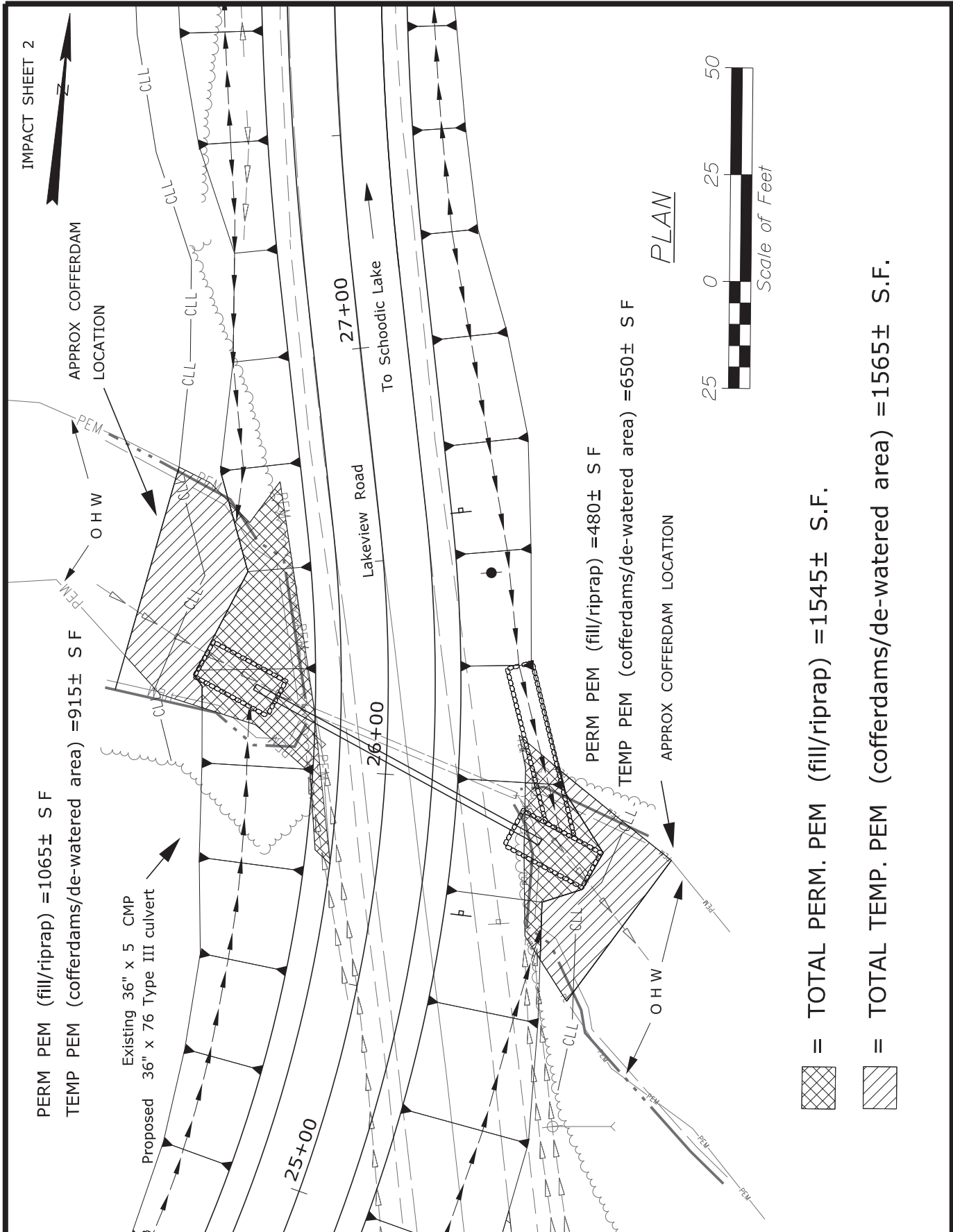
SHEET NUMBER

1

022627.00



PLANS

OF2



PERM PEM (fill/riprap) = 1065± S F
 TEMP PEM (cofferdams/de-watered area) = 915± S F

PERM PEM (fill/riprap) = 480± S F
 TEMP PEM (cofferdams/de-watered area) = 650± S F

-  = TOTAL PERM. PEM (fill/riprap) = 1545± S.F.
-  = TOTAL TEMP. PEM (cofferdams/de-watered area) = 1565± S.F.

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

022627.00

Pleasant Street MILO
 PISCATAQUIS COUNTY

PLANS

SHEET NUMBER

2

OF 2

**STATE OF MAINE
DEPARTMENT OF TRANSPORTATION**



**MILLO
PISCATAQUIS COUNTY
PLEASANT RIVER BRIDGE
OVER
PLEASANT RIVER
PLEASANT STREET
FEDERAL AID PROJECT NO. STP-2262(700)
PROJECT LENGTH 0.327 mi.
BRIDGE NO. 3244**

SPECIFICATIONS

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

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

Current (2020) AADT 990
 Future (2040) AADT 1190
 DHV - % of AADT 11%
 Design Hour Volume 131
 Heavy Trucks (% of AADT) 8%
 Heavy Trucks (% of DHV) 8%
 Design Speed (mph) 32
 18 kip Equivalent P 2.5 31
 18 kip Equivalent P 2.5 35

HYDROLOGIC DATA

Drainage Area 322.84 mi
 Design Discharge (Q50) 29,240 cfs
 Check Discharge (Q100) 33,175 cfs
 Headwater Elevation (Q1.1) 275.07 ft
 Headwater Elevation (Q10) 283.09 ft
 Headwater Elevation (Q25) 283.84 ft
 Headwater Elevation (Q50) 285.05 ft
 Headwater Elevation (Q100) 285.93 ft
 Discharge Velocity (Q1.1) 3.31 fps
 Discharge Velocity (Q25) 3.70 fps
 Discharge Velocity (Q50) 3.64 fps
 Discharge Velocity (Q100) 3.64 fps

MATERIALS

Concrete:
 Transition Barriers & Curbs Class "LP"
 Slabs Class "S"
 All Other Class "A"
 Reinforcing Steel:
 Plain Reinforcing Steel ASTM A 615 / A 615M, Grade 60
 Stainless Reinforcing Steel ASTM A 955, Grade 75
 Glass Fiber Reinforced Polymer (GFRP) CSA 8807-10, ACI 440-1R-15
 Structural Steel:
 All Material (except as noted) ASTM A 709, Grade 50W (Unpainted)
 High Strength Bolts ASTM F 3125, Grade A 325, Type 3

BASIC DESIGN STRESSES

Concrete:
 Class "LP" f'c = 5,000 psi
 Class "S" f'c = 3,000 psi
 Class "A" f'c = 4,000 psi
 Reinforcing Bars:
 Plain Steel fy = 60,000 psi
 Stainless Steel fy = 75,000 psi
 Glass Fiber Reinforced Polymer:
 #5 Bar f fu = 100,000 psi
 #6 Bar f fu = 100,000 psi
 #7 Bar f fu = 95,000 psi
 Minimum Elastic Modulus E = 6,150,000 psi
 Structural Steel:
 ASTM 709, Grade 50W fy = 50,000 psi
 ASTM F 3125, Grade A325, Type 3 fu = 120,000 psi



LIST OF DRAWINGS

Title Sheet 1
 General Notes 2
 General Plans 3-5
 Profiles 6-10
 Typical Sections 11-12
 Cross Sections 13-54

Plan Impacts Complete
January 8, 2020

UTILITIES

Time Warner Cable
 Central Maine Power Company
 Fairpoint Communications

MAINTENANCE OF TRAFFIC

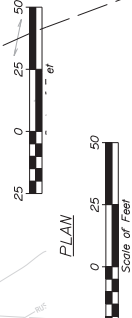
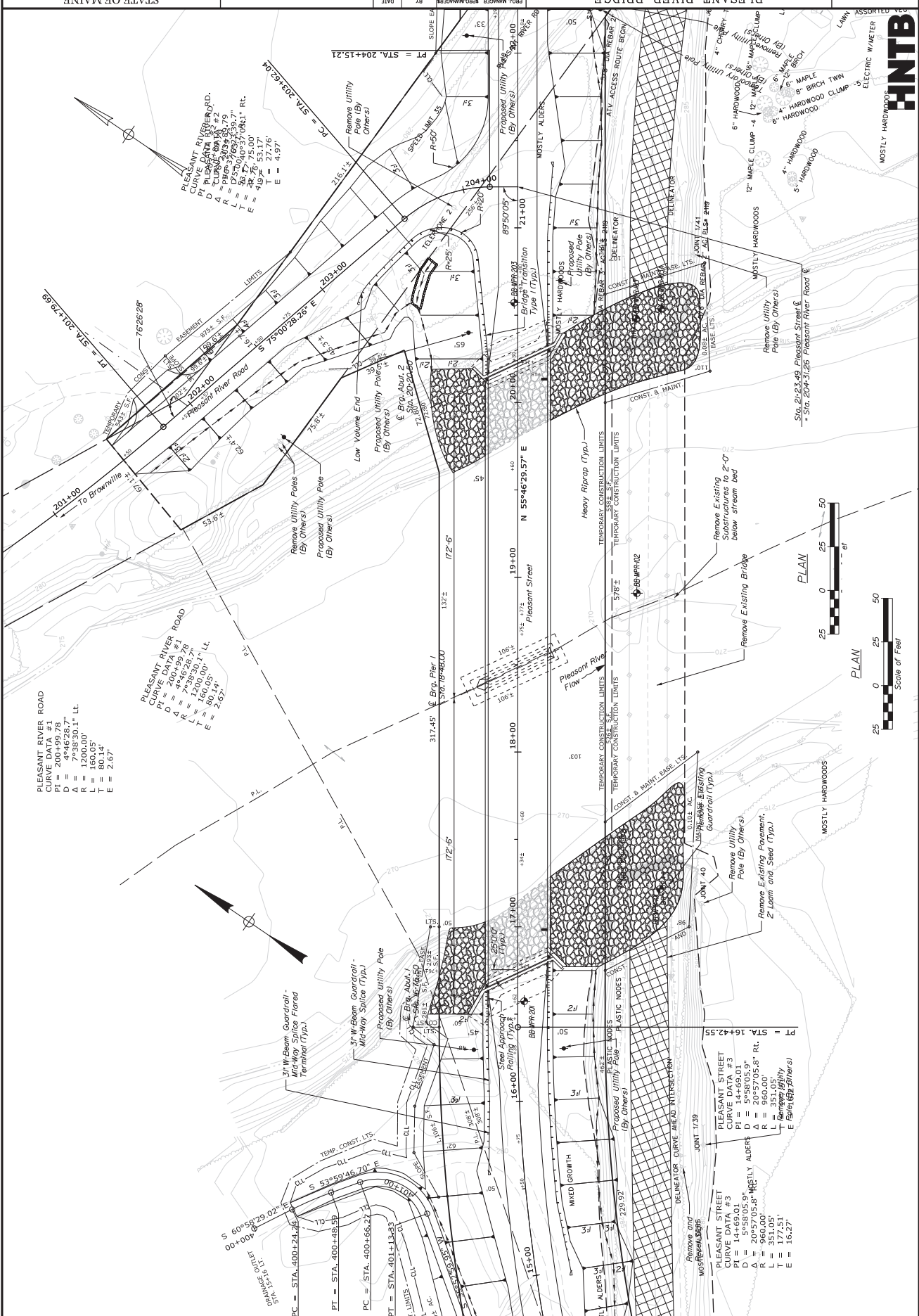
Maintain two way traffic on the existing bridge.

PROJECT LOCATION	Pleasant River Bridge #3244 in Millo carrying Pleasant Street over Pleasant River, located .08 miles east of Lakeview Road. Lat./Long. 45°16'0" N 68°58'14" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Replacement of Pleasant River Bridge #3244 in Millo with associated approach work.

PROJECT INFORMATION PROJECT NUMBER: 022627.00 PROJECT NAME: MILLO PLEASANT RIVER BRIDGE SHEET NUMBER: 1 OF 1	TITLE SHEET PROJECT RESIDENT: STATE OF MAINE CONSULTANT: HNTB DESIGNER: Lot/Discipline: Bridge PROJECT MANAGER: Amy Locke SIGNATURE: _____ P.E. NUMBER: _____ DATE: _____ APPROVED: _____ COMMISSIONER: _____ CHIEF ENGINEER: _____ DEPARTMENT OF TRANSPORTATION STATE OF MAINE
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REVISIONS	DATE	BY	DATE
REVISION 4	10/15/20	BRIDGE	
REVISION 3	10/15/20	BRIDGE	
REVISION 2	10/15/20	BRIDGE	
REVISION 1	10/15/20	BRIDGE	
DESIGN - CIVIL	10/15/20	BRIDGE	
DESIGN - STRUCT	10/15/20	BRIDGE	
DESIGN - GEOTECH	10/15/20	BRIDGE	
DESIGN - ELEC	10/15/20	BRIDGE	
DESIGN - MECH	10/15/20	BRIDGE	
DESIGN - HYDRO	10/15/20	BRIDGE	
DESIGN - TRAFFIC	10/15/20	BRIDGE	
DESIGN - ENVIRONMENTAL	10/15/20	BRIDGE	
DESIGN - HISTORIC	10/15/20	BRIDGE	
DESIGN - ARCHITECTURE	10/15/20	BRIDGE	
DESIGN - LANDSCAPE	10/15/20	BRIDGE	
DESIGN - OTHER	10/15/20	BRIDGE	

REVISIONS	DATE	BY	DATE
REVISION 4	10/15/20	BRIDGE	
REVISION 3	10/15/20	BRIDGE	
REVISION 2	10/15/20	BRIDGE	
REVISION 1	10/15/20	BRIDGE	
DESIGN - CIVIL	10/15/20	BRIDGE	
DESIGN - STRUCT	10/15/20	BRIDGE	
DESIGN - GEOTECH	10/15/20	BRIDGE	
DESIGN - ELEC	10/15/20	BRIDGE	
DESIGN - MECH	10/15/20	BRIDGE	
DESIGN - HYDRO	10/15/20	BRIDGE	
DESIGN - TRAFFIC	10/15/20	BRIDGE	
DESIGN - ENVIRONMENTAL	10/15/20	BRIDGE	
DESIGN - HISTORIC	10/15/20	BRIDGE	
DESIGN - ARCHITECTURE	10/15/20	BRIDGE	
DESIGN - LANDSCAPE	10/15/20	BRIDGE	
DESIGN - OTHER	10/15/20	BRIDGE	



PLEASANT RIVER ROAD
 CURVE DATA #3
 PI = 200+95.78
 D = 4°46'28.7"
 A = 7°38'30.1" Lt.
 L = 160.05'
 T = 80.14'
 E = 2.67'

PLEASANT RIVER ROAD
 CURVE DATA #4
 PI = 201+95.78
 D = 4°46'28.7"
 A = 7°38'30.1" Lt.
 L = 160.05'
 T = 80.14'
 E = 2.67'

PLEASANT STREET
 CURVE DATA #3
 PI = 14+69.01
 D = 15°58'05.9"
 A = 20°57'05.8" MOSTLY ALDER
 R = 960.00'
 L = 351.05'
 T = 16.27'
 E = 16.27'

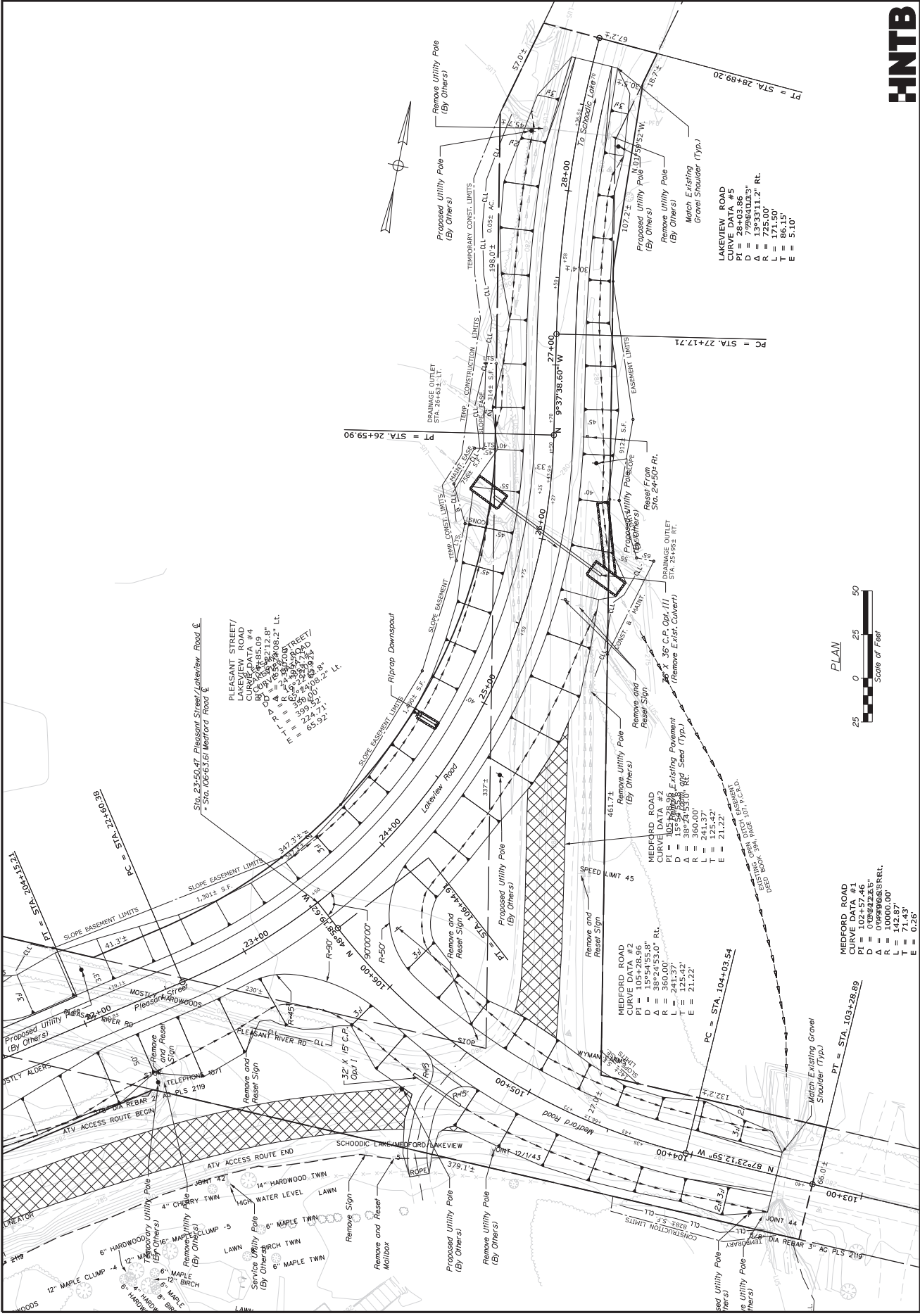


SHEET NUMBER 5 OF 1

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
GENERAL PLAN 3

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 2244
WIN 22627.00

DESIGN-DATE	DESIGNER	CHECKED	DATE
10/20/18	10/20/18	10/20/18	10/20/18
10/20/18	10/20/18	10/20/18	10/20/18
10/20/18	10/20/18	10/20/18	10/20/18
10/20/18	10/20/18	10/20/18	10/20/18
10/20/18	10/20/18	10/20/18	10/20/18



MEDFORD ROAD
 CURVE DATA #1
 PI = 105+28.96
 D = 108842.56'
 A = 0°09'00.00" S 88.00' E
 R = 10000.00'
 L = 142.87'
 T = 125.42'
 E = 0.226'

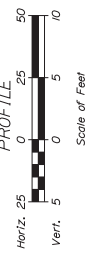
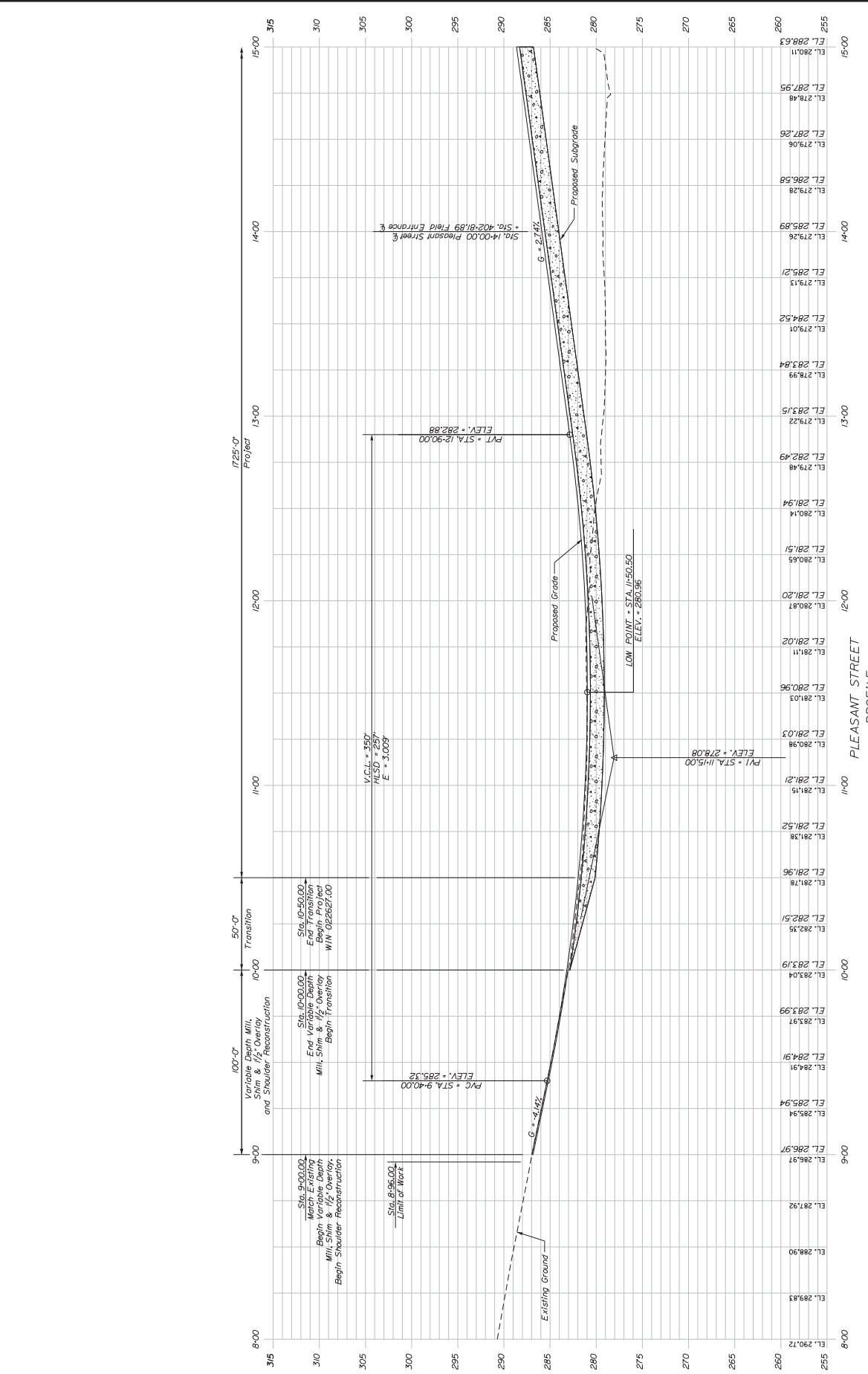
MEDFORD ROAD #2
 CURVE DATA #2
 PI = 105+28.96
 D = 3892453.00'
 A = 38°24'53.00" RT
 R = 360.00'
 L = 241.37'
 T = 125.42'
 E = 21.22'

LAKEVIEW ROAD
 CURVE DATA #5
 PI = 28+03.86
 D = 1303311.27'
 A = 1°30'33.11" RT
 R = 725.00'
 L = 171.50'
 T = 86.15'
 E = 5.10'

PLEASANT STREET/
 LAKEVIEW ROAD
 CURVE DATA #4
 PI = 108+85.09
 D = 108842.56'
 A = 0°09'00.00" S 88.00' E
 R = 10000.00'
 L = 142.87'
 T = 125.42'
 E = 0.226'

REGIONS	REVISIONS	DATE
REGIONS 4	Revised	
REGIONS 3	Revised	
REGIONS 2	Revised	
REGIONS 1	Revised	
DESIGN-DEVELOP	Revised	
DESIGN-CONSTRUCT	Revised	

PROJ. MANAGER	PROJ. MANAGER'S BY	DATE
SIGNATURE	DATE	





OF -
2
SHEET NUMBER

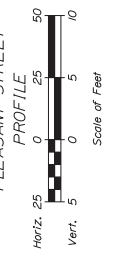
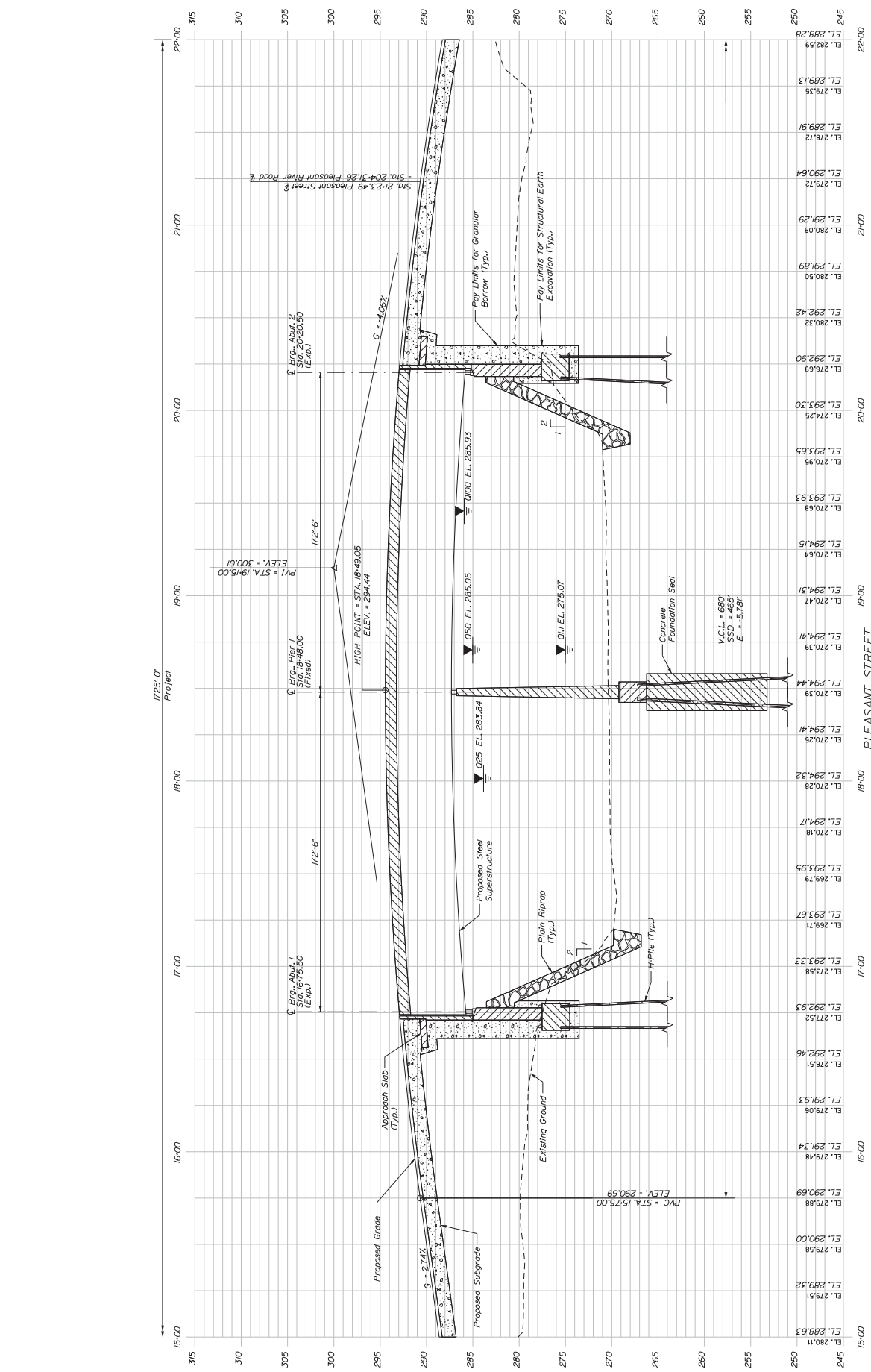
MILO
PLEASANT RIVER
PISCATAQUIS COUNTY

PLEASANT RIVER BRIDGE

PROFILE 2

DESIGN-DATE	DESIGNER	CHECKER	DATE
10/20/15	10/20/15	10/20/15	10/20/15
10/20/15	10/20/15	10/20/15	10/20/15
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 3244
WIN 22627.00



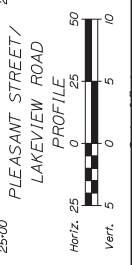
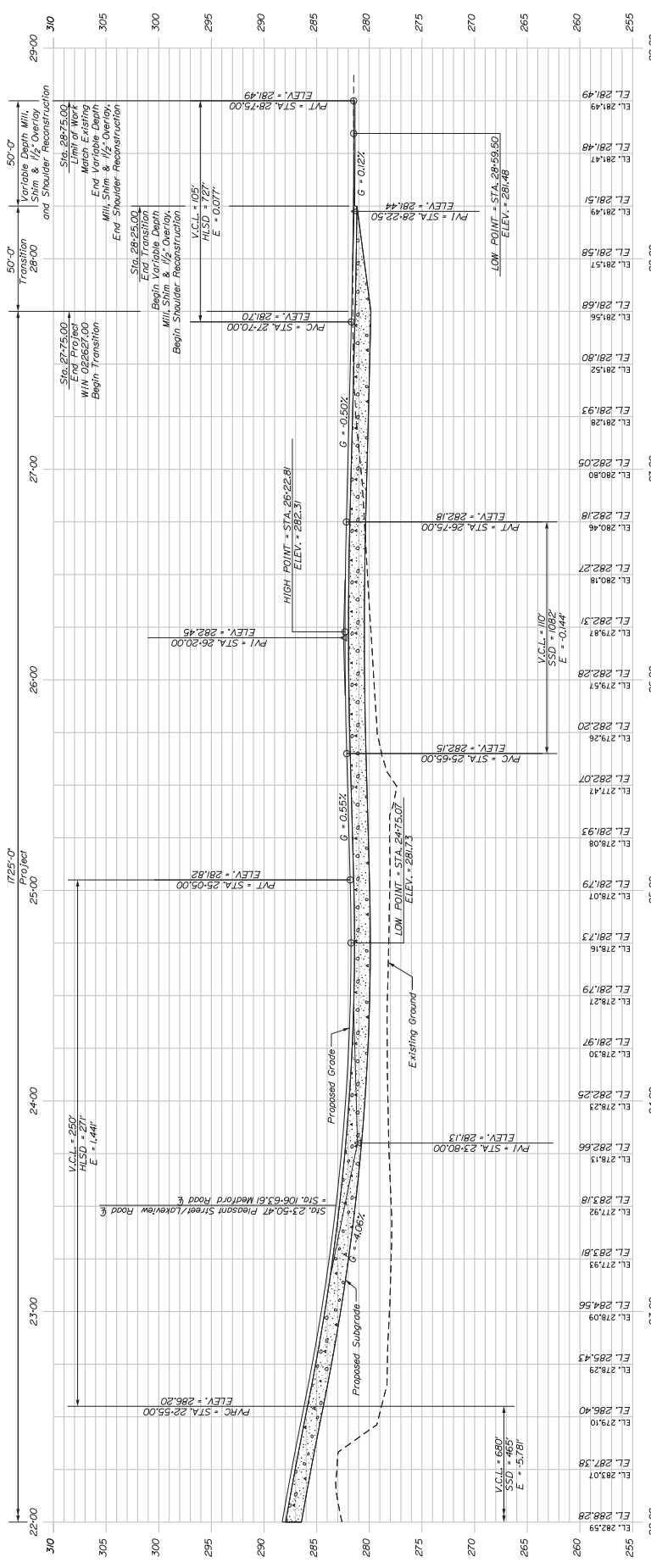


8 OF -
SHEET NUMBER

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
PROFILE 3

FIELD CHECKS	THROUGHTS
REGIONS 4	REVISIONS 4
REGIONS 3	REVISIONS 3
REGIONS 2	REVISIONS 2
REGIONS 1	REVISIONS 1
DESIGN-DETAILED	REVISIONS 15
DESIGN-DETAILED	REVISIONS 14
DESIGN-DETAILED	REVISIONS 13
DESIGN-DETAILED	REVISIONS 12
DESIGN-DETAILED	REVISIONS 11
DESIGN-DETAILED	REVISIONS 10
DESIGN-DETAILED	REVISIONS 9
DESIGN-DETAILED	REVISIONS 8
DESIGN-DETAILED	REVISIONS 7
DESIGN-DETAILED	REVISIONS 6
DESIGN-DETAILED	REVISIONS 5
DESIGN-DETAILED	REVISIONS 4
DESIGN-DETAILED	REVISIONS 3
DESIGN-DETAILED	REVISIONS 2
DESIGN-DETAILED	REVISIONS 1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN
BRIDGE NO. 3244
BRIDGE PLANS



11. State transportation facilities

A. Applicability

- (1) This section applies to the maintenance, repair, reconstruction, rehabilitation, replacement or minor construction of a State Transportation Facility carried out by, or under the authority of, the Maine Department of Transportation (MaineDOT) or the Maine Turnpike Authority, including any testing or preconstruction engineering, and associated technical support services.
- (2) This section does not apply to an activity within a coastal sand dune system.

NOTE: The construction of a transportation facility other than roads and associated facilities may be subject to the Storm Water Management Law, 38 M.R.S.A. Section 420-D.

B. Standards

- (1) Photographs of the area to be altered by the activity must be taken before work on the site begins. The photographs must be kept on file and be made available at the request of the DEP.
- (2) The activity must be reviewed by the Department of Inland Fisheries and Wildlife and the Department of Marine Resources, as applicable. The applicant must coordinate with the reviewing agencies and incorporate any recommendations from those agencies into the performance of the activity.
- (3) All construction activities undertaken must be detailed in a site-specific Soil Erosion and Water Pollution Control Plan and conducted in accordance with MaineDOT's Best Management Practices for Erosion and Sediment Control, dated January 2000, and Standard Specifications, dated December 2002.
- (4) Alignment changes may not exceed a distance of 200 feet between the old and new center lines in any natural resource.
- (5) The activity may not alter more than 300 feet of shoreline (both shores added together) within a mile stretch of any river, stream or brook, including any bridge width or length of culvert.
- (6) The activity may not alter more than 150 feet of shoreline (both shores added together) within a mile stretch of any outstanding river segment identified in 38 M.R.S.A. 480-P, including any bridge width or length of culvert.
- (7) The activity must minimize wetland intrusion. The activity is exempt from the provisions of Chapter 310, the Wetland and Waterbodies Protection Rules, if the activity alters less than 15,000 square feet of natural resources per mile of roadway (centerline measurement) provided that the following impacts are not exceeded within the 15,000 square foot area:
 - (a) 1,000 square feet of coastal wetland consisting of salt tolerant vegetation or shellfish habitat; or

- (b) 5,000 square feet of coastal wetland not containing salt tolerant vegetation or shellfish habitat; or
- (c) 1,000 square feet of a great pond.

All other activities must be performed in compliance with all sections of Chapter 310, the Wetland Protection Rules, except 310.2(C), 5(A), 9(A), 9(B) and 9(C).

- (8) The activity may not permanently block any fish passage in any watercourse containing fish. The applicant must coordinate with the reviewing agencies listed in paragraph 2 above to improve fish passage and incorporate any recommendations from those agencies into the performance of the activity.

NOTE: For guidance on meeting the design objectives for fish passage, including peak flow, maximum velocity, mining depth and gradient, see the MaineDOT Waterbody and Wildlife Crossing Policy and Design Guide (July 2008), developed in conjunction with state and federal resource and regulatory agencies.

- (9) Rocks may not be removed from below the normal high water line of any coastal wetland, freshwater wetland, great pond, river, stream or brook except to the minimum extent necessary for completion of work within the limits of construction.
- (10) If work is performed in a river, stream or brook that is less than three feet deep at the time and location of the activity, the applicant must isolate the work area from the resource and divert stream flows around the work area, maintaining downstream flows while work is in progress.
- (11) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may reach into the water with a bucket or similar extension. Equipment may cross streams on rock, gravel or ledge bottom. If avoiding the operation of wheeled or tracked equipment in the water is not possible, the applicant must explain the need to operate in the water. Approval from the DEP to operate in the water must be in writing, and any recommendations from the DEP must be incorporated into the performance of the activity.
- (12) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms.
- (13) Any debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Erosion and sediment control best management practices must be used, where necessary, to prevent sedimentation. Any debris generated during the activity must be prevented from washing downstream and must be removed from the wetland or water body. Disposal of debris must be in conformance with the Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*
- (14) Work below the normal high water line of a great pond, river, stream or brook must be done at low water except for emergency work or work agreed to by the resource agencies listed in paragraph 2 above.
- (15) Perimeter controls must be installed before the work starts. Disturbance of natural resources beyond the construction limits shown on the plans is not allowed under this rule.

NOTE: Guidance on the location of construction limits can be obtained from the on site Construction Manager.

- (16) The use of untreated lumber is preferred. Lumber pressure treated with chromated copper arsenate (CCA) may be used only if necessary and only if use is allowed under federal law and not prohibited from sale under 38 M.R.S.A. 1682, and provided it is cured on dry land in a manner that exposes all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol may not be used where it will contact water.
- (17) A temporary road for equipment access must be constructed of crushed stone, blasted ledge, or similar materials that will not cause sedimentation or restrict fish passage. Such roads must be completely removed at the completion of the activity. In addition, any such temporary roads which are in rivers, streams or brooks, must allow for a passage of stormwater flows associated with a 10-year storm.
- (18) Non-native species may not be planted in restored areas.
- (19) Disposal of debris must be in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 *et seq.*
- (20) Disturbance of vegetation must be avoided, if possible. Where vegetation is disturbed outside of the area covered by any road or structure construction, it must be reestablished immediately upon completion of the activity and must be maintained.
- (21) A vegetated area at least 25 feet wide must be established and maintained between any new stormwater outfall structure and the high water line of any open water body. A velocity reducing structure must be constructed at the outlet of the stormwater outfall that will create sheet flow of stormwater, and prevent erosion of soil within the vegetated buffer. If the 25 foot vegetated buffer is not practicable, the applicant must explain the reason for a lesser setback in writing. Approval from the DEP must be in writing and any recommendations must be incorporated into the activity.

C. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) Diversion. The rerouting of a river, stream or brook around a construction site and then back to the downstream channel.
- (2) Fill. a. (verb) To put into or upon, supply to, or allow to enter a water body or wetland any earth, rock, gravel, sand, silt, clay, peat, or debris; b. (noun) Material, other than structures, placed in or immediately adjacent to a wetland or water body.
- (3) Floodplain wetlands. Freshwater wetlands that are inundated with flood water during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Agency or other site specific information.
- (4) Riprap. Heavy, irregularly shaped rocks that are fit into place, without mortar, on a slope as defined in the MaineDOT Standard Specifications, dated **November 2014**.



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

Regulatory Division
File No. NAE-2020-01150

August 4, 2020

David Gardner
Environmental Office
Maine Dept. of Transportation
16 State House Station
Augusta, Maine 04333

Dear Mr. Gardner:

Enclosed are two copies of a Department of the Army permit authorizing your project. **Please sign both copies of the permit and return one signed copy to this office at the address above.** No fee is required. The authorized work cannot start until we receive a complete, signed copy of the permit.

You are required to complete and return the enclosed forms to this office:

1. Preliminary Jurisdictional Determination Form to be submitted along with your signed copy of the permit
2. Work Start Notification Form at least two weeks before the anticipated work start date.
3. Compliance Certification Form within one month following the completion of the authorized work.

This permit is a limited authorization containing a specific set of conditions. Please read the permit thoroughly to familiarize yourself with those conditions, **including any conditions contained on the enclosed state water quality certification.** If a contractor does the work for you, both you and the contractor are responsible for ensuring that the work is done in compliance with the permit's terms and conditions, as any violations could result in civil or criminal penalties.

Our verification of this project's wetland delineation under the Corps of Engineers Wetlands Delineation Manual, and its applicable supplement, is valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

A combined Notification of Administrative Appeal Options and Process (NAP) and Request for Appeal (RFA) form, and flow chart explaining the appeals process and your options, are enclosed. If you desire to appeal this proffered permit, you must submit a completed RFA form along with any supporting or clarifying information to James W. Haggerty; Administrative Appeals Review Officer; North Atlantic Division, Corps of Engineers; North Atlantic Fort Hamilton Military Community, Bldg. 301; General Lee Avenue; Brooklyn, NY 11252-6700.

Contact info: (347) 370-4650 or james.w.haggerty@usace.army.mil.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP.

You may not appeal conditions contained in the State water quality certification or the CZM consistency determination under this program as they are automatically included in the Federal permit. This authorization does not obviate the need to obtain other Federal, state, or local authorizations required by law.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

If you have any questions regarding this correspondence, please contact Jay Clement at 207-623-8367 at our Augusta, Maine Project Office.

Sincerely,

DELGIUDICE.FRA
NK.J.1228916567

Digitally signed by
DEL GIUDICE FRANK J.122891
6567
Date: 2020.08.04 10:01:11
-04'00'

Frank J. Del Giudice
Chief, Permits and Enforcement Branch
Regulatory Division

Enclosures

cc:

Laura Teracino, U.S. Environmental Protection Agency Region 1, Teracino.Laura@epa.gov

DEPARTMENT OF THE ARMY PERMIT

Permittee Maine Dept. of Transportation, 16 State House Station, Augusta, Maine 04333

Permit No. NAE-2020-01150

Issuing Office New England District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

Place temporary and permanent fill in order to replace the existing deteriorated Pleasant Street bridge. On the northeastern side of the crossing, the roadway will be realigned to make Pleasant Street to Lakeview Road a through movement. The project will result in approximately 3,260 s.f. of permanent and 2,340 s.f. of temporary stream bed impact, and 1,545 s.f. of permanent and

Project Description Continued on Page 4

This work is shown on the attached plans entitled, "Pleasant Street, Milo, PISCATAQUIS COUNTY" in four sheets dated "1/28/2020", "MILO PLEASANT RIVER BRIDGE" in one sheet undated, and "PLEASANT RIVER BRIDGE, PLEASANT RIVER, MILO, PISCATAQUIS COUNTY" in 12 sheets undated.

Project Location:

In the Pleasant River and in adjacent freshwater wetlands at Milo, Maine

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2025. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee shall ensure that a copy of this permit is at the work site whenever work is being performed and that all personnel performing work at the site of the work authorized by this permit are fully aware of the terms and conditions of the permit. This permit, including its drawings and any appendices and other attachments, shall be made a part of any and all contracts and sub-contracts for work which affects areas of Corps of Engineers jurisdiction at the site of the work authorized by this permit. This shall be done by including the entire permit in the specifications for work.

Special Conditions continued on Page 4

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. **Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



8/18/2020

(PERMITTEE)

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

DELGIUDICE.FRANK. Digitally signed by
J.1228916567 DELGIUDICE.FRANK.J.1228916567
Date: 2020.08.04 10:00:28 -04'00'

Frank J. Del Giudice
Chief, Permits & Enforcement Branch
For District Engineer

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

Project Description Continued from Page 1

1,565 s.f. of temporary wetland impact. A temporary work trestle will be constructed to provide access to the center-river bridge pier. Traffic will be maintained on the existing bridge until the replacement is completed whereupon the existing bridge will be demolished.

Special Conditions continued from Page 2

If the permit is issued after the construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. If the permit is issued after receipt of bids or quotes, the entire permit shall be included in the contract or sub-contract as a change order. The term "entire permit" includes permit amendments. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions of the entire permit, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

2. This authorization requires you to 1) notify us before beginning work so we may inspect the project, and 2) submit a Compliance Certification Form. You must complete and return the enclosed Work Start Notification Form(s) to this office at least two weeks before the anticipated starting date. The permittee shall complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

3. Adequate sedimentation and erosion control devices, such as geo-textile silt fences or other devices capable of filtering the fines involved, shall be installed and properly maintained to minimize impacts during construction. These devices must be removed upon completion of work and stabilization of disturbed areas. The sediment collected by these devices must also be removed and placed upland, in a manner that will prevent its later erosion and transport to a waterway or wetland.

4. No temporary fill (e.g., access roads, cofferdams) may be placed in waters or wetlands unless specifically authorized by this permit. If temporary fill is used, it shall be disposed of at an upland site and suitably contained to prevent its subsequent erosion into a water of the U.S., and the area shall be restored to its original contours (but not higher) and character upon completion of the project. During use, such temporary fill must be stabilized to prevent erosion or, in the case fill placed in flowing water (rivers or streams), clean washed stone should be used.

5. Except where stated otherwise, reports, drawings, correspondence and any other submittals required by this permit shall be marked with the words "Permit No. NAE-2020-01150" and shall be addressed to "Inspection Section, CENAE-R, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751." Documents which are not marked and addressed in this manner may not reach their intended destination and do not comply with the requirements of this permit.

6. In order to fulfill the requirements of Section 106 of the National Historic Preservation Act of 1966, the permittee shall implement the stipulations contained in the attached Memorandum of Agreement between the Federal Highway Administration, the Maine State Historic Preservation Officer, and the Maine Dept. of Transportation.

Corps of Engineers Permit No. NAE-2020-01150
Permit Special Conditions Resulting From
Formal Endangered Species Act Consultation
Between the Federal Highway Administration (FHWA) and
the National Marine Fisheries Service (NMFS)
(Reference USFWS Biological Opinion (BO) dated “3/3/20”)

1. Staff from the Maine DOT will hold a preconstruction meeting with appropriate environmental field representatives, other staff from the Maine DOT, and construction crew or contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon and to emphasize the importance of these measures for protecting Atlantic salmon and its critical habitat. Staff from the Service will be notified and attend these meetings as practicable. The purpose of this Avoidance & Minimization Measure (AMM) is to inform contractors of the AMMs to be used during the entirety of the action.
2. The contractor will be required to submit a Soil Erosion and Water Pollution Control Plan (SEWPCP) for review and approval by the Maine DOT staff prior to the start of work. The plan includes the review of the implementation of any AMMs proposed.
3. No equipment, materials, or machinery will be stored, cleaned, fueled, or repaired within any wetland or watercourse. All vehicle and equipment refueling activities will occur more than 100 feet from any water course and if not, all refueling areas will require fuel spill containment structures as per the Spill Prevention, Control, and Countermeasure (SPCC) Plan. Other construction equipment maintenance will be done at a location consistent with SPCC Plan and in a manner that avoids hazardous materials getting into the stream.
4. All equipment used for in-stream work will be cleaned of external oil, grease, dirt, and mud such that turbid water does not drain to any wetland or watercourse. Any leaks or accumulations of these materials will be corrected before entering streams or areas that drain directly to streams or wetlands. All releases into surface waters or wetlands will be reported immediately to the appropriate regulatory body.
5. During construction, any disturbed soils will be temporary stabilized using Best Management Practices (BMP), such as straw mulch, plastic sheeting, erosion control mix, or other appropriate BMPs.
6. Vegetation clearing adjacent to the stream will be minimized to the maximum extent practicable. All areas of disturbed soil will be mulched and seeded with an approved native or non-invasive herbaceous seed mix following construction and/or planted with native woody vegetation and trees appropriate during the first available planting season.
7. To minimize the spread of noxious weeds into the riparian zone, all off-road equipment and vehicles operating from existing open and maintained roads must be cleaned prior to entering the construction site to remove all soil, seeds, vegetation, or other debris that could contain seeds or reproductive portions of plants. All equipment will be inspected prior to offloading to ensure that they are clean.

Construction of Temporary Bridges

8. Construction of temporary approaches and abutments will be contained within turbidity curtains.
9. Fill for temporary approaches will be limited to no more than 25 percent of the width of the river.
10. Temporary fill will consist of non-erodible material on top of a geotextile fabric filter layer.
11. All areas of temporary fill will be restored to their original contour and character upon completion of the project.

Removal of Bridges

12. Demolition and debris removal and disposal will comply with Section 202.03 of the Maine DOT's Standard Specifications. The contractor will contain all demolition debris, including debris from wearing surface removal, saw cut slurry, dust, etc., and will not allow it to discharge to any resource. The contractor will dispose of debris in accordance with the Maine Solid Waste Law (Title 38 Maine Revised Statutes Annotated [M.R.S.A.] Section 1301 et. seq.). The demolition plan, containment, and disposal of demolition debris will be addressed in the contractor's SEWPCP.
13. Temporary bridge piles will be removed with a vibratory hammer.
14. Demolition of concrete piers of existing bridges will occur within containment such as turbidity curtains.
15. If piles are removed by cutting, they must be cut to one foot below the substrate level. If piles are removed by pulling, the work will be completed using a BMP to minimize turbidity.
16. After removal of the current bridge's pier, the area will be restored to match current river substrate, depth, and flow conditions.

Construction of New Bridge

17. Cofferdams will be installed between July 15 and September 30 or December 1 and March 31.
18. Sheet pile installation and removal will be completed using a vibratory hammer.
19. To minimize fish stranding inside the cofferdam when dewatering, environmental staff from the Maine DOT or similarly qualified consultants will capture and remove as many Atlantic salmon and other fish species as feasible where water depths allow following the plan found

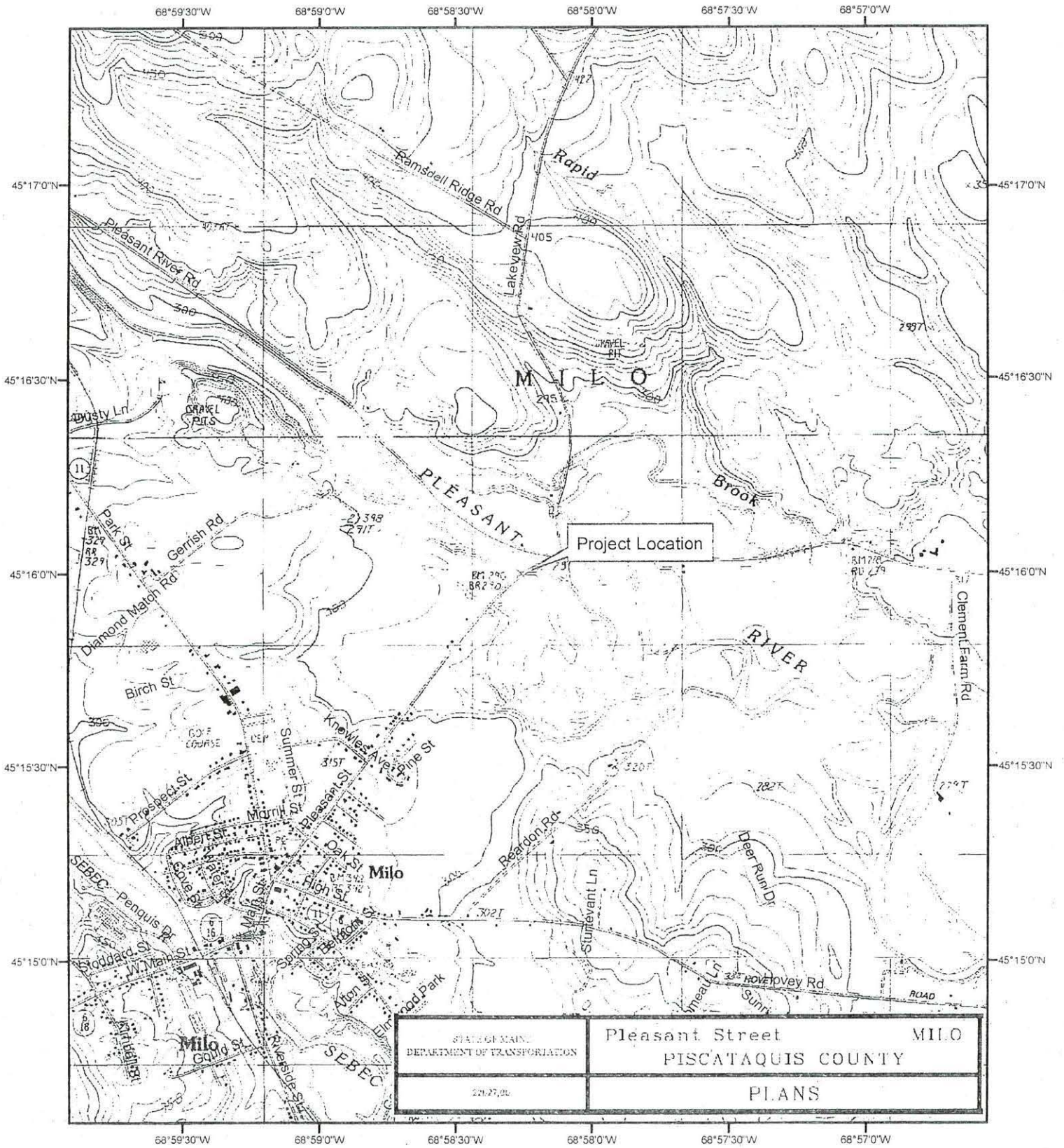
in the Maine DOT's Atlantic Salmon Evacuation Plan and Disinfection Procedures in the Programmatic Biological Assessment for Transportation Projects for the Gulf of Maine Distinct Population Segment of Atlantic Salmon and Designated Critical Habitat available at: <https://www.maine.gov/mdot/maspc/>. Nets will be used to "herd" fish out of the work area to the extent practicable prior to electrofishing and cofferdam installation. If adult Atlantic salmon are observed in the work area during active construction, all activities will cease and the Maine DOT environmental staff or similarly qualified consultants will immediately contact Patrick Dockens at the Service's Maine Field Office (207) 460-2566.

20. Any concrete that has been in contact with water must have a pH between 6.0 and 8.5, must be within 1 pH unit of the background pH level of the stream, and must have a turbidity level no greater than the receiving resource. Disposal or treatment of water not meeting release criteria will be addressed in the SEWPCP. Discharging impounded water to the stream must take place in a manner that does not disturb the stream bottom or cause erosion. The contractor shall be responsible for monitoring pH with a calibrated meter accurate to 0.1 units. A record of pH measurements shall be kept in the environmental field representative's log.

Pile Driving (Temporary and New Bridges)

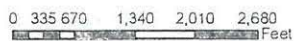
21. Piles will be installed between July 15 and September 30 or December 1 and March 31.
22. Steel H-pile size is limited to less than 14 inches and steel pipe pile size is limited to less than 30 inches.
23. A vibratory hammer will be used as much as possible for all pile driving activities.
24. Pile driving will occur during the day when fish are less active and Atlantic salmon migrations are less common.
25. Any use of an impact hammer during pile driving will require the use of passive attenuation measures (changing hammer type, reducing driving duration, reducing force settings) and active measures (cushions and bubble curtains).
26. Hydroacoustic monitoring will be completed for all in-water pile driving with an impact hammer. Instantaneous results will be monitored, and work will be halted if noise levels exceed thresholds at anticipated distances.
27. During in-water work with potential for injurious levels of underwater noise, an observer (either staff from the Maine DOT or other qualified Consultant) will monitor for the presence of adult Atlantic salmon. If a salmon is observed during active construction, all activities will cease. The observer will contact the Service's Maine Field Office (Patrick Dockens (207) 460-2566) and will take measures to attempt to encourage the salmon to move away from the pile driving activity.

28. A biologist (either from the Maine DOT, Maine DMR, or qualified consultant) will complete visual surveys for observable redds within the project footprint each fall (October to November) during the project's construction phases. The presence of redds will be recorded using global positioning system (GPS) and general habitat conditions shall be noted. Results of redd surveys will be communicated to the Service and the Maine DMR, including the location documented redds in areas of temporary and permanent impact. If a redd is observed within an area subject to temporary fill (e.g., temporary bridge pile), the contractor will attempt to move and shift temporary work to avoid impacts to the redd(s) to the degree practicable.
29. Following installation of the new concrete pier, the contractor will backfill the pier cap and lower portion of the pier with dredge material prior to removing the cofferdam. The disturbed substrate around the new concrete pier will be restored to its original contour and character upon completion of the project.
30. Compensatory mitigation shall consist of purchasing 3.6 Habitat Units from the Maine Atlantic Salmon Restoration and Conservation Program. As of the date of this permit, the current cost to purchase these Habitat Units is \$12,268.00. The permittee must send a cashier's check or bank draft for this amount, as calculated on the enclosed "In-Lieu Fee (ILF) Project Impact Worksheet" to: Department of Marine Resources Attn: ILF Program Administrator, 21 State House Station, Augusta, Maine. The check must include the Corps file number "NAE-2020-01150" and the statement: "For ILF account only." **No impacts authorized by this permit shall begin until the Corps receives a copy of the letter from the Department of Marine Resources (DMR) to the permittee stating that the DMR has received the check and accepts responsibility for mitigation.** The in-lieu fee amount is valid for one year from the date of this permit and is subject to change.



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	Pleasant Street PISCATAQUIS COUNTY	MILO
22627.00	PLANS	

-68.97061
45.26655



MDOT WIN 22627.00
Milo- Pleasant River Bridge #3244
bridge improvements



1/28/2020

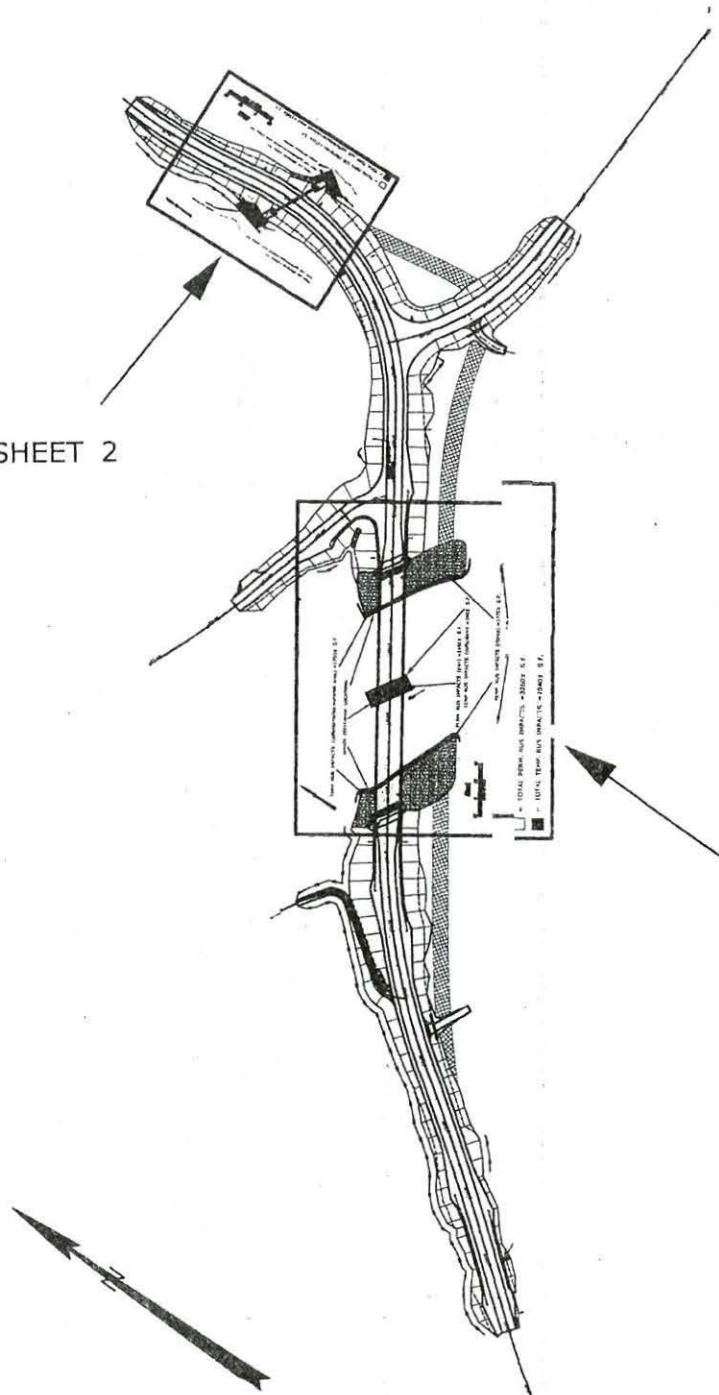
ACOE IMPACT PLAN INDEX

1/28/2020

MILO - WIN 22627.00 - BRIDGE REPLACEMENT
PLEASANT RIVER BRIDGE #3244 OVER PLEASANT RIVER

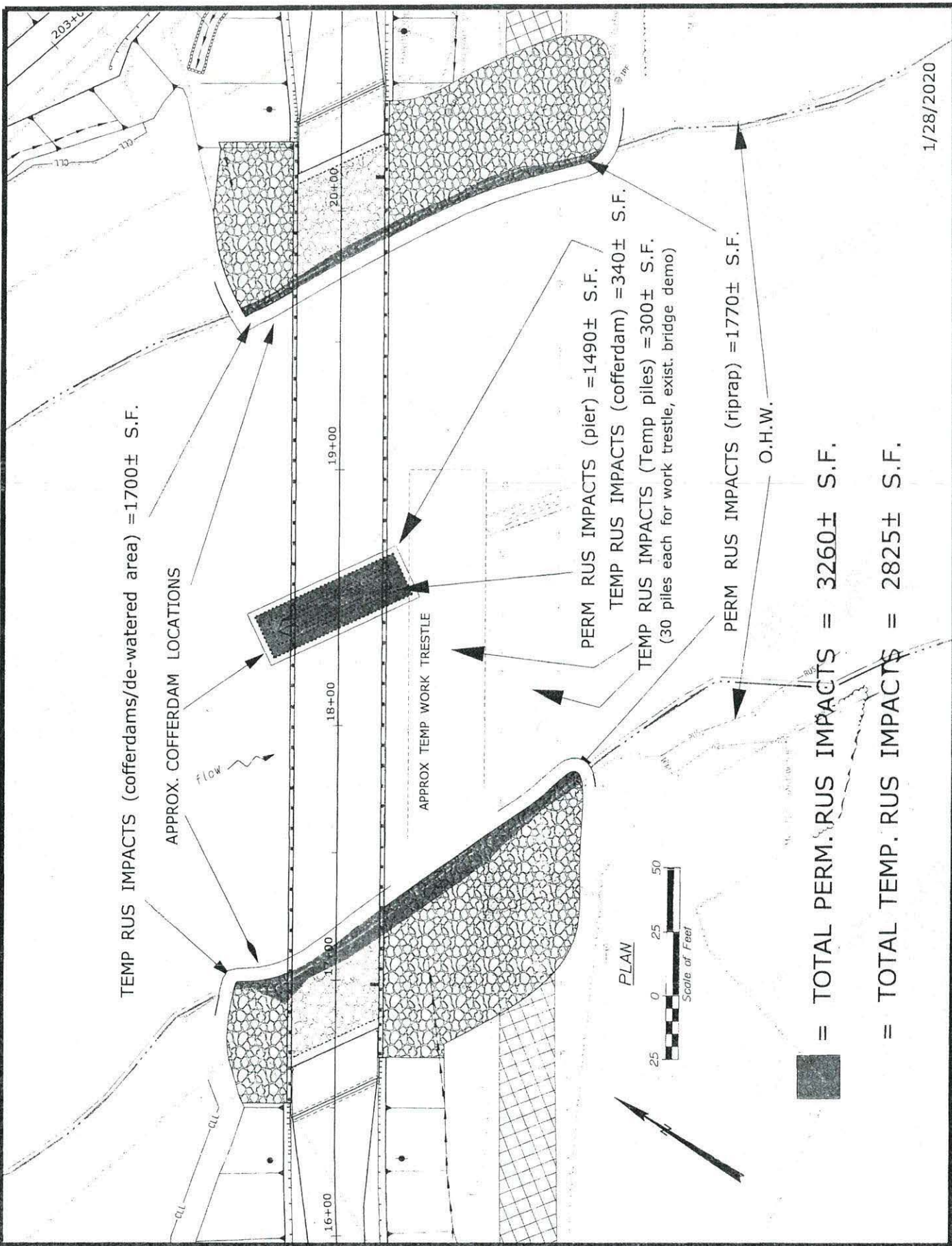
IMPACT SHEET 2

IMPACT SHEET 1



STATEMENT AND SCOPE OF ASSISTANCE TO	Pleasant Street PISCATAQUIS COUNTY	MILO
DATE	PLANS	

1/28/2020



■ = TOTAL PERM. RUS IMPACTS = 3260± S.F.

■ = TOTAL TEMP. RUS IMPACTS = 2825± S.F.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

22627.00

Pleasant Street MILO
PISCATAQUIS COUNTY

PLANS

SHEET NUMBER

1

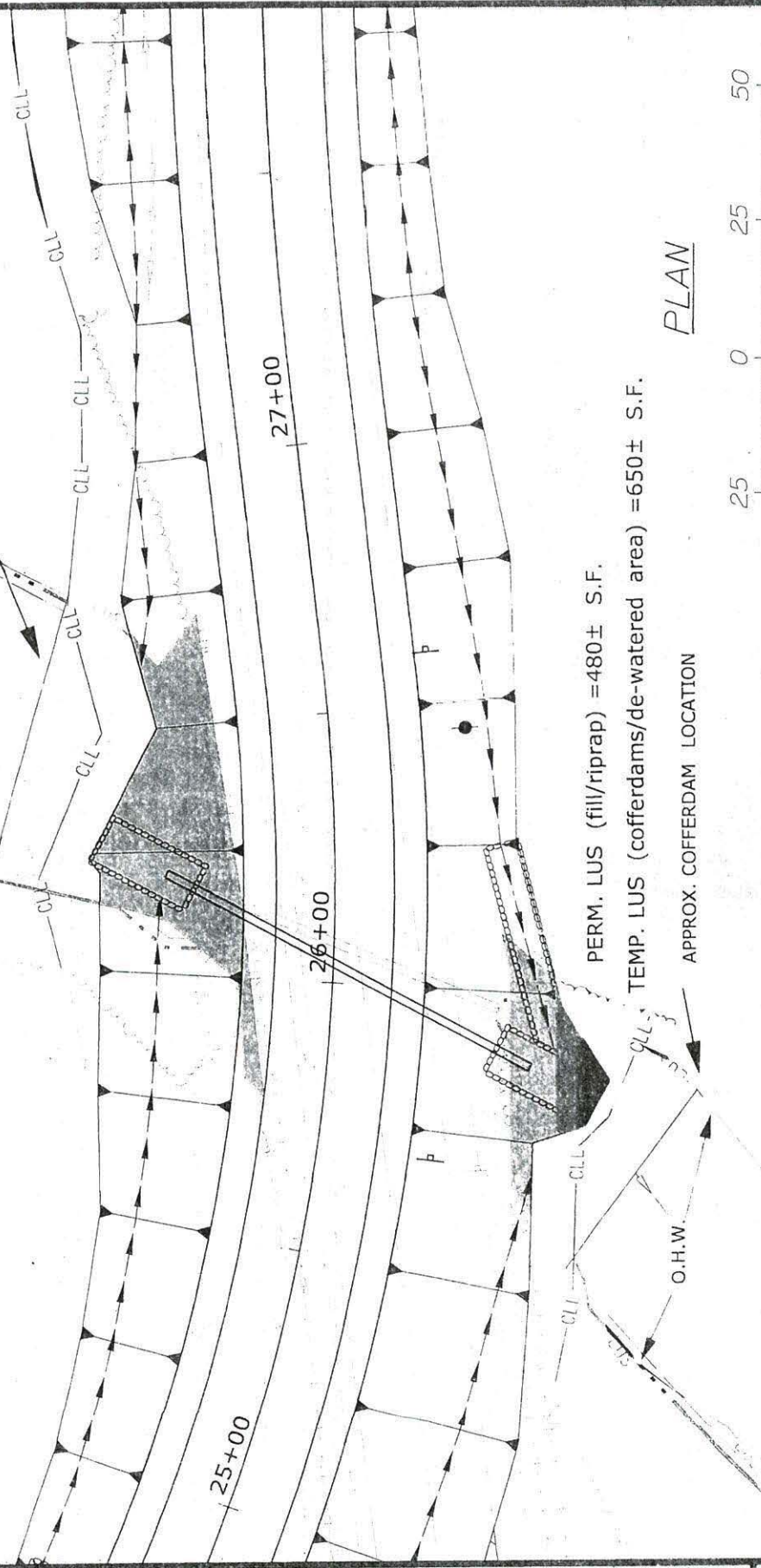
OF2



PERM. LUS (fill/riprap) = 1065± S.F.
 TEMP. LUS (cofferdams/de-watered area) = 915± S.F.

APPROX. COFFERDAM
 LOCATION

O.H.W.



PERM. LUS (fill/riprap) = 480± S.F.

TEMP. LUS (cofferdams/de-watered area) = 650± S.F.

APPROX. COFFERDAM LOCATION

PLAN



= TOTAL PERM. LUS (fill/riprap) = 1715± S.F.

= TOTAL TEMP. LUS (cofferdams/de-watered area) = 1565± S.F.

1/28/2020

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 22627.00

Pleasant Street MILO
 PISCATAQUIS COUNTY
 PLANS

SHEET NUMBER
 2
 OF 2

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



MILO PISCATAQUIS COUNTY PLEASANT RIVER BRIDGE OVER PLEASANT RIVER

PLEASANT STREET
FEDERAL AID PROJECT NO. STP-2262(700)
PROJECT LENGTH 0.327 mi.
BRIDGE NO. 3244

Plan Impacts Complete
January 8, 2020

SPECIFICATIONS

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

DESIGN LOADING

Live Load: HL-93 Modified for Strength I

TRAFFIC DATA

Current (2020) AADT	900
Future (2040) AADT	1190
DIHV - % of AADT	17%
Design Hour Volume	131
Design Speed (mi/h)	55
Heavy Trucks (% of DIHV)	8%
Directional Distribution (% of DIHV)	55%
18 kip Equivalent F _{2.0}	32
18 kip Equivalent F _{7.5}	31
Design Speed (mph)	35

HYDROLOGIC DATA

Drainage Area	302.80 mi
Design Discharge (Q50)	29,240 cfs
Check Discharge (Q100)	33,075 cfs
Headwater Elevation (Q11)	275.07 ft
Headwater Elevation (Q25)	282.09 ft
Headwater Elevation (Q50)	282.84 ft
Headwater Elevation (Q100)	285.93 ft
Discharge Velocity (Q11)	3.31 fps
Discharge Velocity (Q10)	3.70 fps
Discharge Velocity (Q25)	3.92 fps
Discharge Velocity (Q50)	3.64 fps
Discharge Velocity (Q100)	3.64 fps

MATERIALS

Concrete:	Class "LP"
Seals:	Class "S"
All Other:	Class "A"
Reinforcing Steel:	ASTM A 615 / A 615M, Grade 60
Plain Reinforcing Steel:	ASTM A 955, Grade 75
Stainless Reinforcing Steel:	ASTM A 955, Grade 75
Glass Fiber Reinforced Polymer (GFRP):	CSA S807-10, ACI 440-1R-15
Structural Steel:	ASTM A 709, Grade 50W (Unpainted)
All Material (except as noted):	ASTM A 709, Grade 50W (Unpainted)
High-Strength Bolts:	ASTM F 3125, Grade-A B55, Type 3

BASIC DESIGN STRESSES

Concrete:	
Class "LP":	$f'_c = 5,000$ psi
Class "S":	$f'_c = 4,000$ psi
Class "A":	$f'_c = 4,000$ psi
Reinforcing Bars:	
Plain Steel:	$f_y = 60,000$ psi
Stainless Steel:	$f_y = 75,000$ psi
Glass Fiber Reinforced Polymer:	$f_m = 100,000$ psi
4# Bar:	$f_m = 100,000$ psi
4" Bar:	$f_m = 100,000$ psi
Minimum Elastic Modulus:	$E_f = 6,150,000$ psi
Structural Steel:	
ASTM 709, Grade 50W:	$f_y = 50,000$ psi
ASTM F 3125, Grade-A B55, Type 3:	$f_u = 120,000$ psi



LIST OF DRAWINGS

Title Sheet	1
General Notes	2
General Plans	3-5
Profiles	6-10
Typical Sections	11-12
Cross Sections	13-54

UTILITIES

Time Warner Cable
Central Maine Power Company
Fairpoint Communications

MAINTENANCE OF TRAFFIC

Maintain two way traffic on the existing bridge.

PROJECT LOCATION	Pleasant River Bridge #3244 in Milo carrying Pleasant Street over Pleasant River, located .08 miles east of Lakeside Road. Lat./Long. 45°16'0" N, 68°58'14" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Replacement of Pleasant River Bridge #3244 in Milo with associated approach work.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED _____ DATE _____	COMMISSIONER _____ CHIEF ENGINEER _____	PROJECT INFORMATION PROJECT NUMBER: _____ DATE: _____ SHEET NUMBER: _____	MIL0 PLEASANT RIVER BRIDGE TITLE SHEET
--	------------------------------	--	--	--

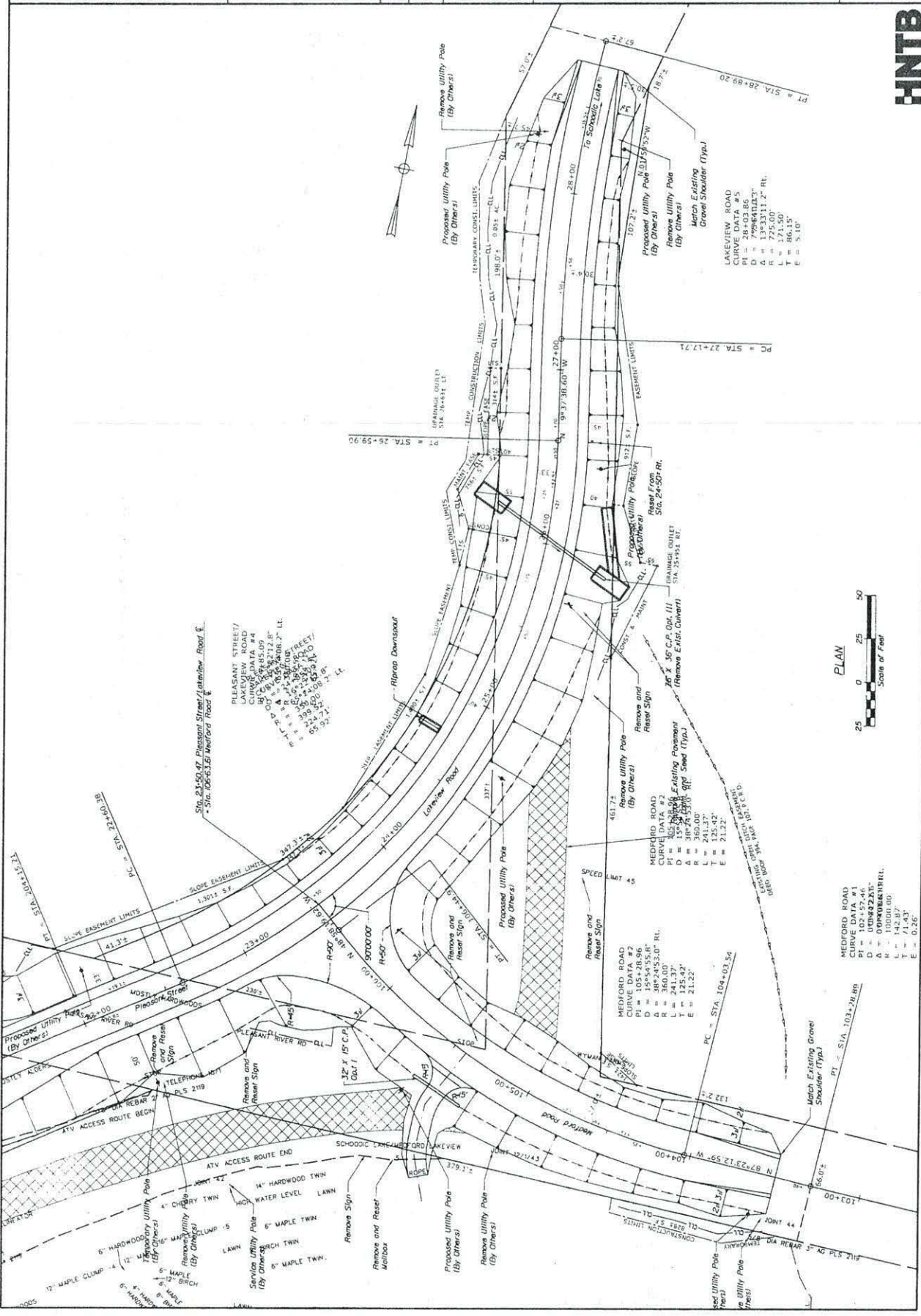
WIN 022627.00

1
OF

**PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
GENERAL PLAN 3**

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 324 WIN 2827.00
BRIDGE PLANS

NO.	DATE	BY	DESCRIPTION
1			PREPARED FOR THE PROJECT
2			REVISED
3			REVISED
4			REVISED
5			REVISED
6			REVISED
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10			REVISED
11			REVISED
12			REVISED
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99			REVISED
100			REVISED



MEDFORD ROAD
CURVE DATA #1
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R = 10000.00'
T = 71.43°
E = 0.26'

MEDFORD ROAD
CURVE DATA #2
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T = 125.42°
E = 21.22'

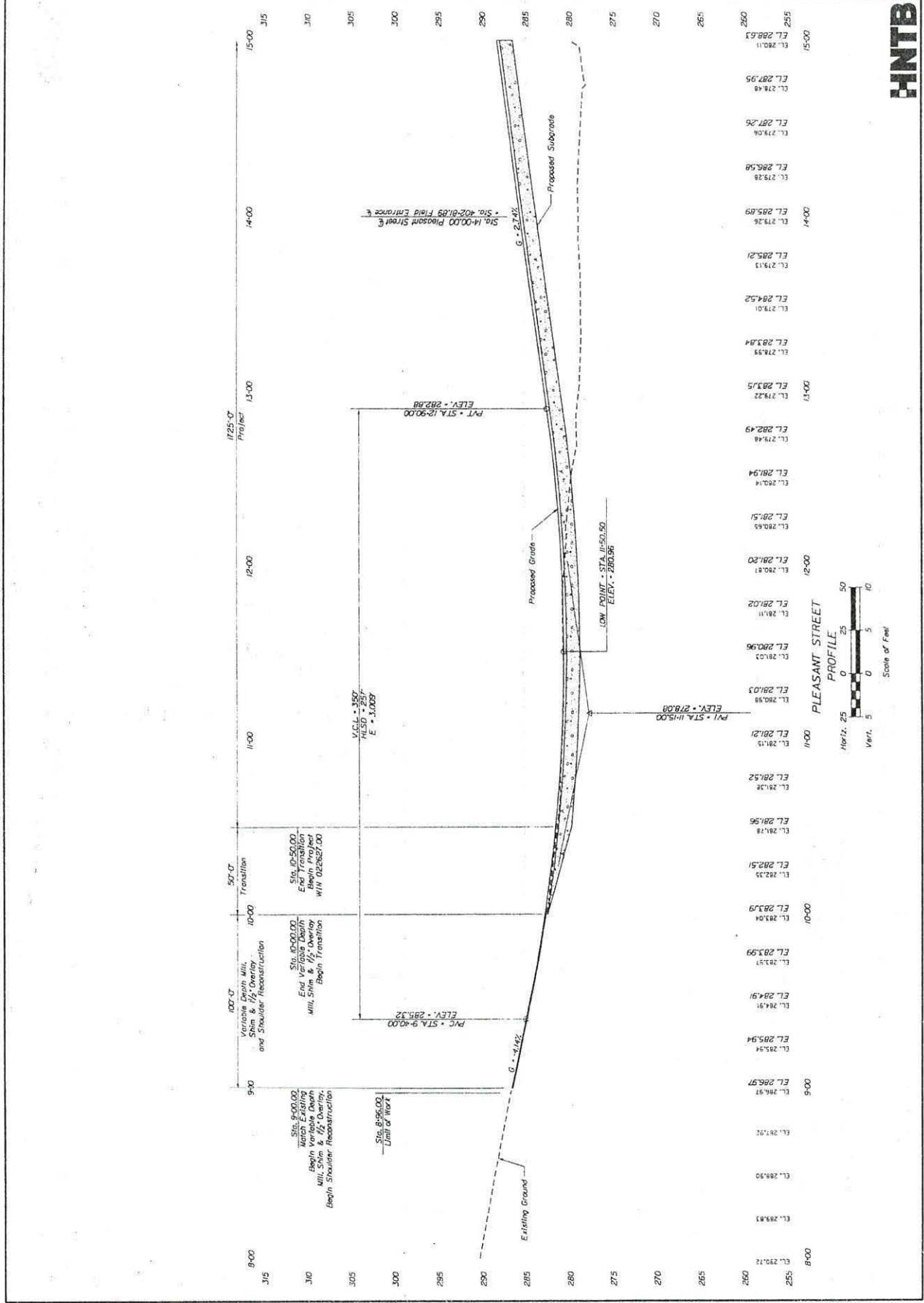
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T = 125.42°
E = 21.22'

MEDFORD ROAD
CURVE DATA #4
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R = 15000.00'
T = 125.42°
E = 21.22'

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
PROFILE 1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WIN
BRIDGE NO. 244 WIN 22627.00
BRIDGE PLANS

NO.	DATE	BY	DESCRIPTION
1			PRELIMINARY
2			REVISED
3			REVISED
4			REVISED
5			REVISED
6			REVISED
7			REVISED
8			REVISED
9			REVISED
10			REVISED



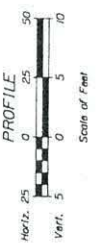
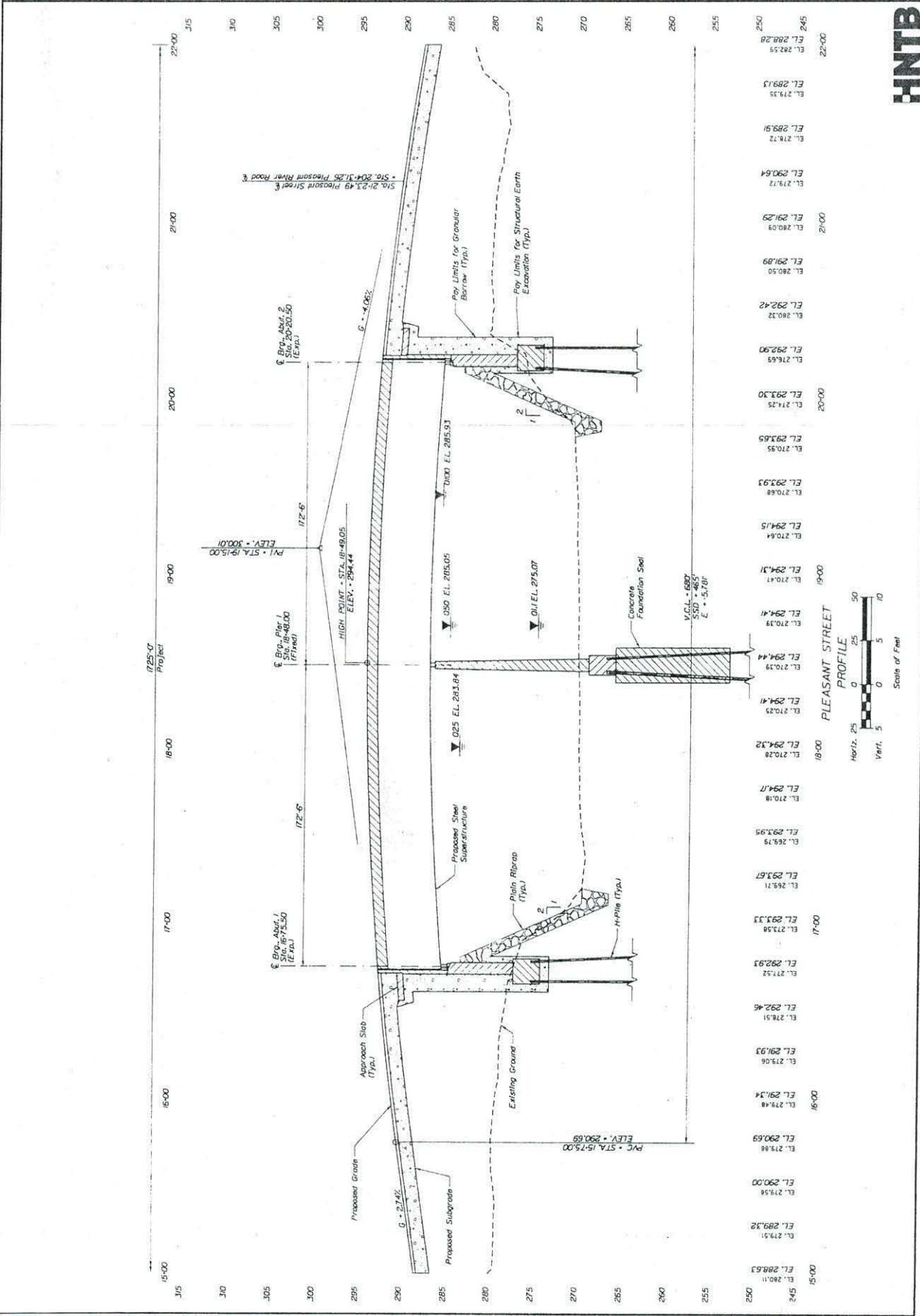


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OF 1

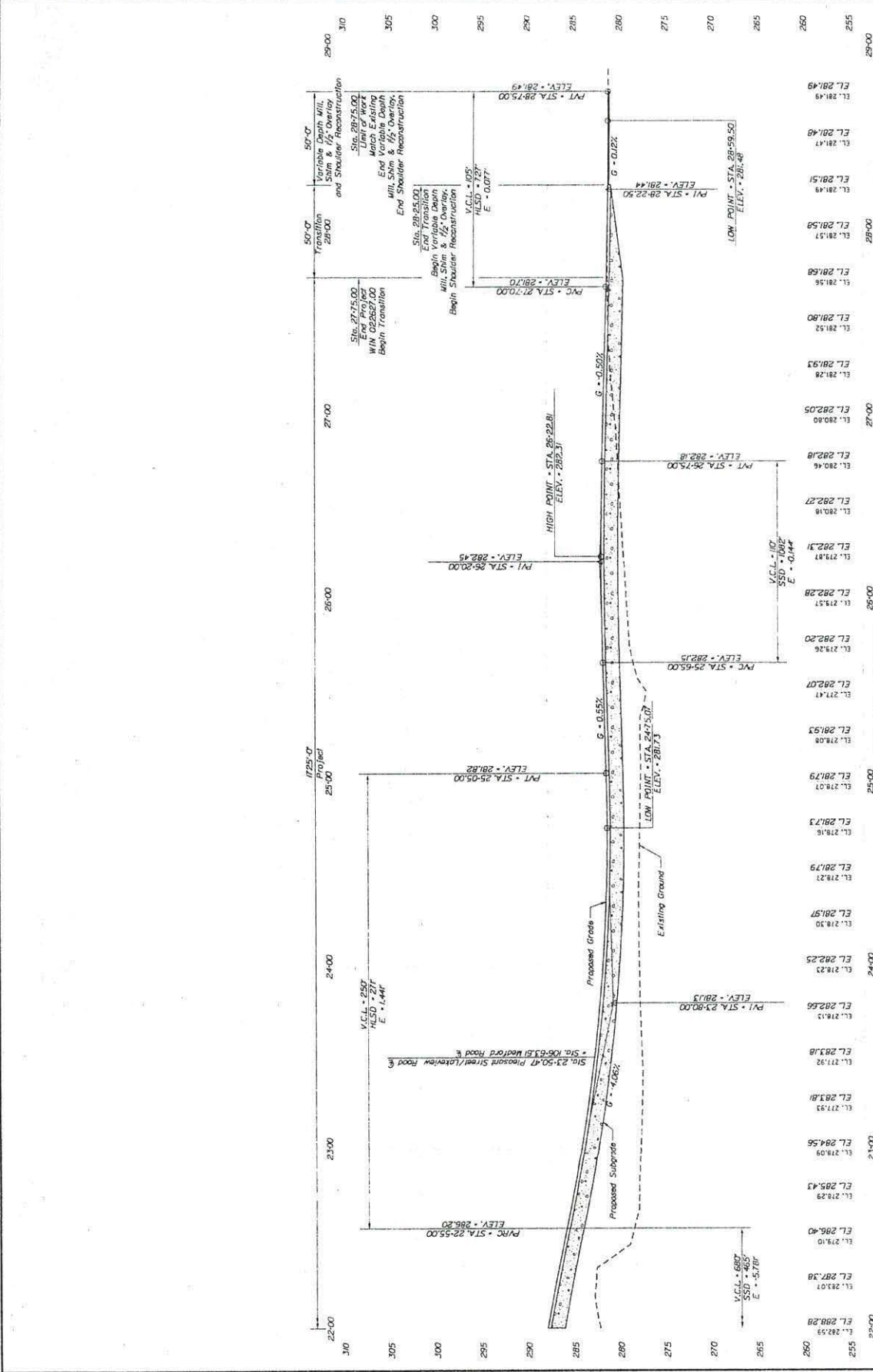
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
PROFILE 2

DESIGN NUMBER	DATE
PROJECT NUMBER	DATE
DESIGNER	DATE
CHECKED	DATE
APPROVED	DATE
DATE	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 3244
WIN
22827.00
BRIDGE PLANS



PLEASANT RIVER BRIDGE		PISCATAQUIS COUNTY	
MILE		PROFILE 3	
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
BRIDGE NO. 224		WIN 2327.00	
BRIDGE PLAN		WIN	



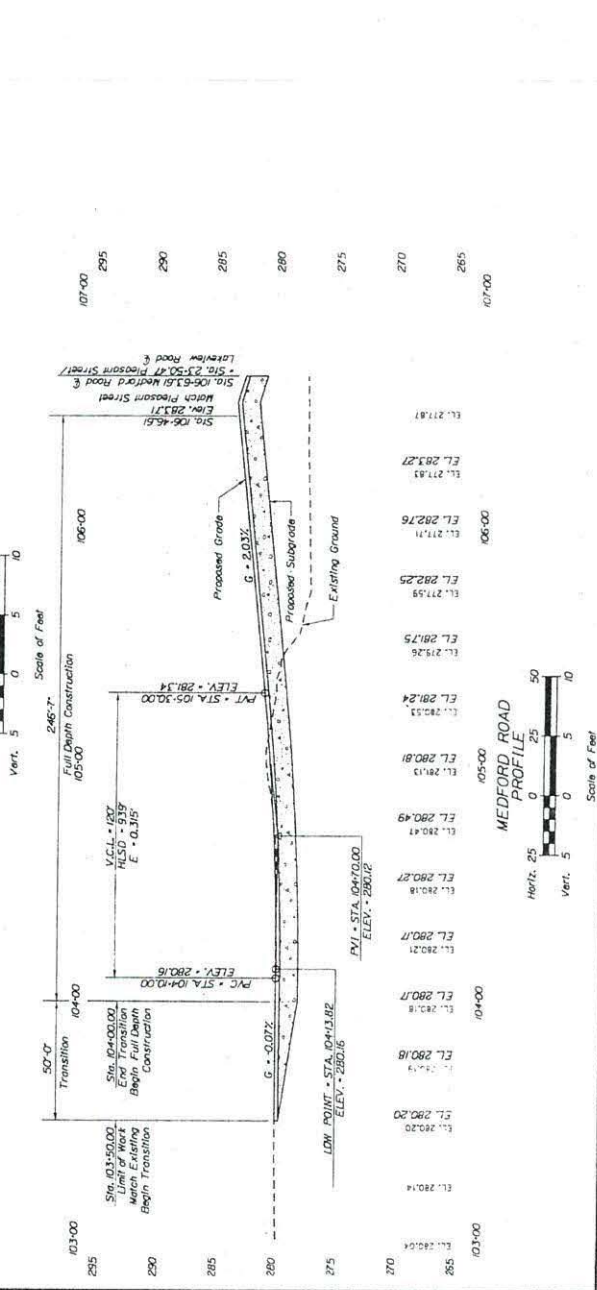
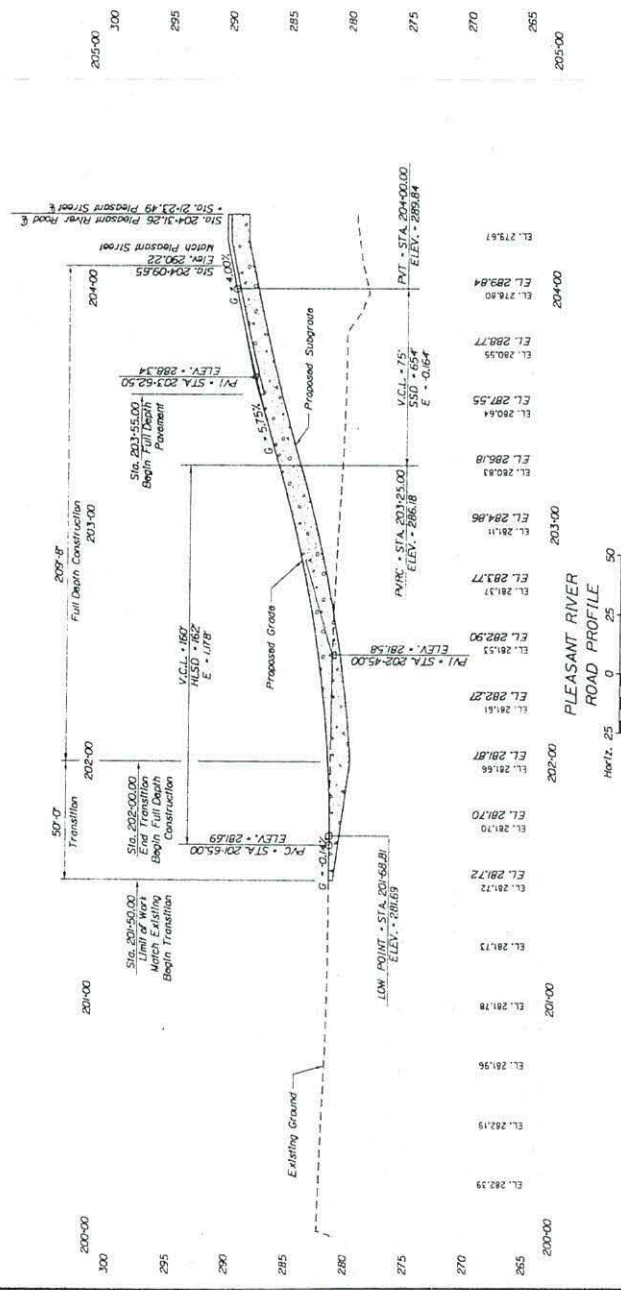


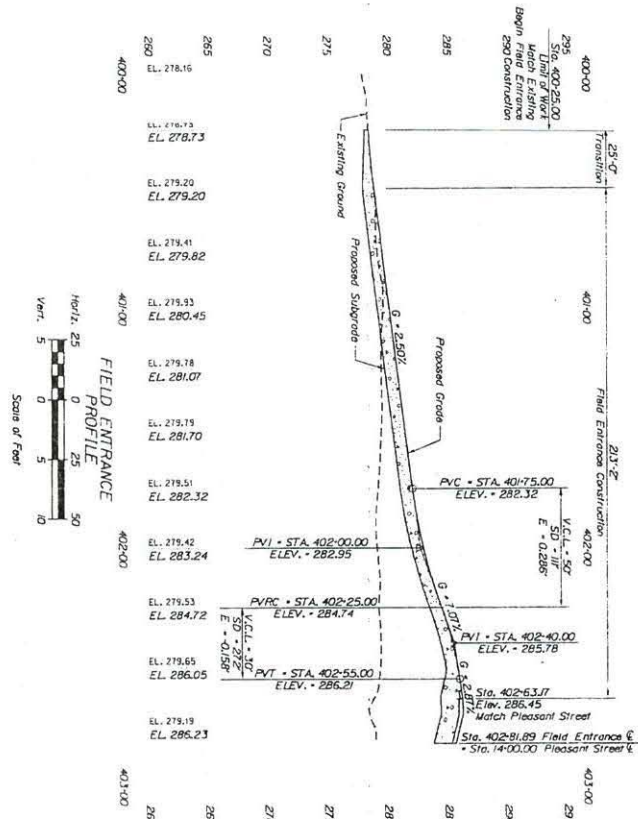
SHEET NUMBER
6
OF

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY

NO.	DATE	BY	DESCRIPTION
1			PRELIMINARY
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3			REVISED
4			REVISED
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BRIDGE NO. 3444 WIN 2827.00
BRIDGE PLANS

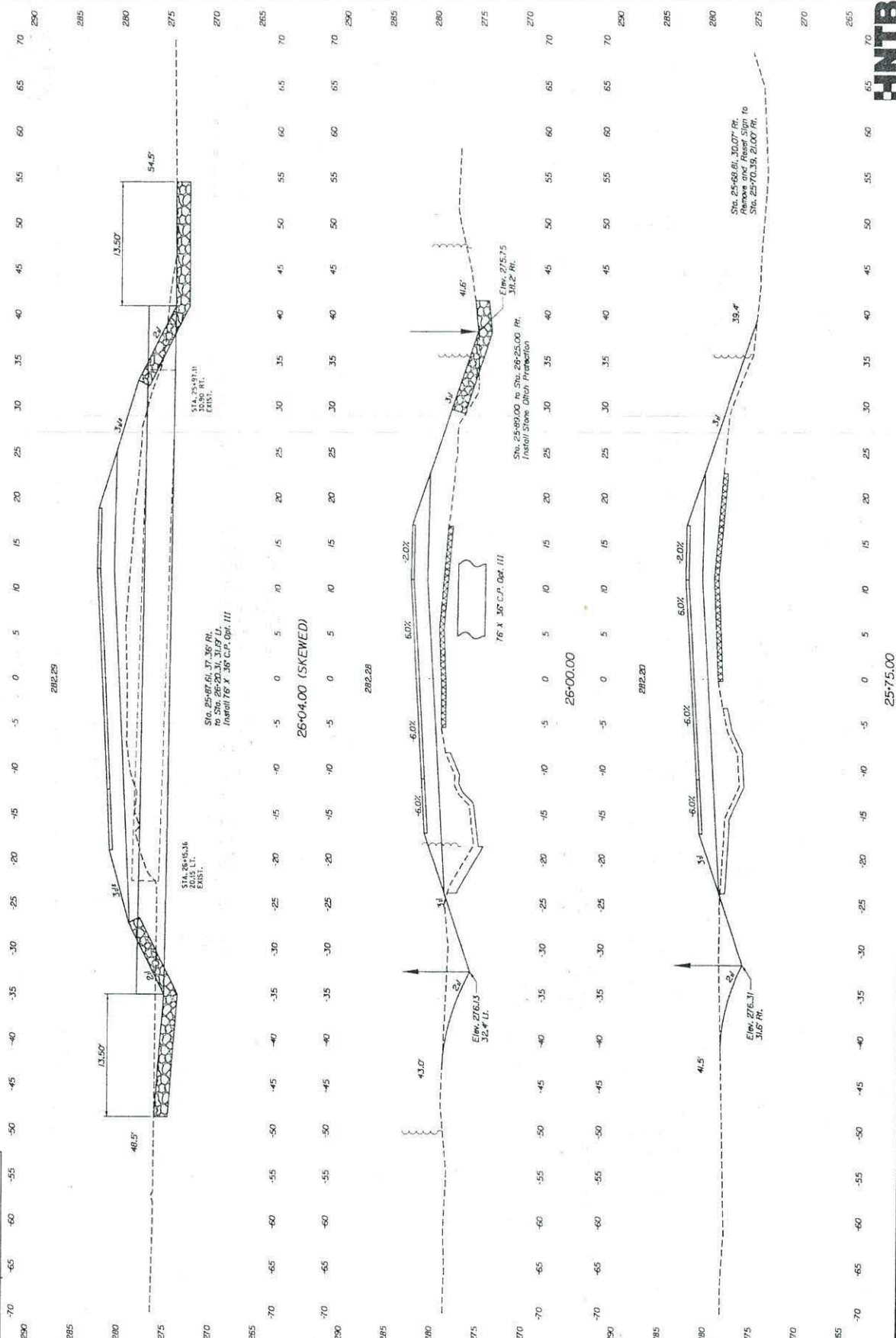




HNTB

SHEET NUMBER 10 OF	PLEASANT RIVER BRIDGE PLEASANT RIVER PISCATAQUIS COUNTY PROFILE 5	MILO	PROGRAMMER: WPROJAWACEN BY: DATE:	STATE OF MAINE DEPARTMENT OF TRANSPORTATION
		CHECKED: REVISED:	DESIGN: DESIGNER: DATE:	SIGNATURE:
			REVISIONS: 1 REVISIONS: 2 REVISIONS: 3 REVISIONS: 4	P E NUMBER: DATE:
			FIELD CHANGES:	BRIDGE NO. 3244 WIN 22627.00 BRIDGE PLANS

98% PS&E
June 17, 2020

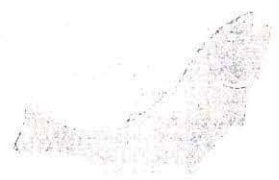


STATE OF MAINE DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 2245 WIN 02227101	BRIDGE NO. 2245 WIN 02227101
PLEASANT RIVER BRIDGE PLEASANT RIVER PISCATAQUIS	PLEASANT ST/LAKEVIEW RD	PLEASANT ST/LAKEVIEW RD
MILE	CROSS SECTIONS	CROSS SECTIONS
SHEET NUMBER 44 OF 89		

Sta. 25+75.00 to Sta. 26+04.00



**MAINE ATLANTIC SALMON IN-LIEU-FEE (ILF)
PROJECT IMPACT WORKSHEET**



DMR Invoice # _____ *Filled in by ILF Administrator in Augusta*

Project name: Pleasant River Bridge Replacement MaineDOT WIN Milo 22627.00

Permittee(s): MaineDOT

DEP/Corps permit #: _____ *Attach a copy of the permit*

DMR/Corps Project Manager: _____

Project address: Pleasant River Bridge #3244, Milo, Maine *Attach a locus map*

Site ID (ME Habitat Viewer / MDOT WIN)	22627.00
--	----------

Biophysical region – (SHRU / HUC 10)	Penobscot Bay SHRU
--------------------------------------	--------------------

Stream Name, Town, County	Pleasant River	Milo	Piscataquis
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Biophysical region – HUC 10 Watershed:	Pleasant River, HUC-10 - 0102000404
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Total impact area subject to compensation:	3.60
--	------

ILF Fee Amount	\$12,268.80
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Check Date: _____ *Filled in by ILF Administrator in Augusta*

**MAINE ATLANTIC SALMON IN-LIEU-FEE (ILF)
PROJECT IMPACT WORKSHEET**

1) Adjacent resources (River/stream/brook) impacted by project footprint:

	Types of Impacts (list all that apply)	Sq. Feet Impacted	Sq. Meters Impacted (Sq. Ft / 10.764)	Linear Feet of Streams Impacted (for Corps use)
1a	Fill	1,939 (see attached narrative below)	180.14	
1b				
1c				
1d				
1e				
1f	Total impacted area: Sq. Ft/Meters/Linear Ft	1,939	180.14	
1g	Total Rearing Habitat Units (100 sq meters)¹		1.80	
1h	Total Spawning Habitat Units (100 sq meters)¹		1.80	

Types of Impacts: May include: filling, dredging, armoring of shoreline, excavation with associated discharge, etc.

2) Upstream resources impacted by project:

2a	Type of Habitat Units ²	Surveyed / Modeled / Estimated
2b	Source of data	
2c	No. of Rearing Habitat Units Blocked:	
2d	No. of Spawning Habitat Units Blocked	

3) Total Habitat Units and Project In Lieu Fee Cost

3a	Habitat units impacted by project footprint (sum of 1g and 1h)	3.60		
3b	Habitat units blocked by project (sum of 2c and 2d)	0		
3c	Total Habitat Units Impacted (sum of 3a and 2b)	3.60		
3d	Service Area Cost Per Habitat Unit: (select one)	Merrymeeting Bay \$4,856.00	Penobscot Bay \$3,408.00	Downeast Coastal \$6,347.00
3e	ILF Fee: (Product of 3c and 3d)	\$12,268.80 (using Penobscot Bay service area cost)		

¹ To calculate Value for 1g and 1f, first add all values in 'Sq. Meters Impacted' column and write result in 1f. Then divide your result by 100 to convert to a Habitat Unit (100 sq. meters).

² Surveyed or modeled habitat units can be accessed via the Maine Stream Habitat Viewer or provided by DMR. If using estimated habitat units attach the excel template for habitat estimation and include the name and agency of the person that completed the estimate in 2b.

The Atlantic salmon In-Lieu Fee calculations were determined using the direct, permanent impacts to the habitat (2,235 sq. ft.). The impacts used for the proposed fee are associated with the new pier and riprap adjacent to the proposed and existing abutments. Plan sheet one calculates impacts from the square footage at the base of the pier. The pier is smaller in size at the river bottom elevation. MaineDOT is proposing to backfill the pier with suitable Atlantic salmon spawning substrate. Therefore, the footprint of the pier at the stream surface elevation was used to determine the impacts to ATS habitat. These numbers are different than typically calculated and what is reported in the individual permit application.

The impact area in Box 1a of the worksheet is discounted by 296 sq. ft. due to the removal of the existing bridge pier and restoration of the riverbed with natural substrate suitable as spawning and rearing habitat. The discounted project impact area is 1,939 sq. ft. (2,235 sq. ft. – 296 sq. ft. = 1,939 sq. ft.).

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Refer to Application
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
- Office concurs with data sheets/delineation report.
- Office does not concur with data sheets/delineation report. Rationale: _____.
- Data sheets prepared by the Corps: _____.
- Corps navigable waters' study: _____.
- U.S. Geological Survey Hydrologic Atlas: **0102000404; Pleasant River**
- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:25,000; Milo North
- Natural Resources Conservation Service Soil Survey. Citation: Penobscot County
- National wetlands inventory map(s). Cite name: Milo North Quad
- State/local wetland inventory map(s): _____.
- FEMA/FIRM maps: _____.

- 100-year Floodplain Elevation is: _____. (National Geodetic Vertical Datum of 1929)
- Photographs: **Refer to DOA permit application – ground photos supplied by DOT**
- Aerial (Name & Date): **Multiple – refer to MEOGIS and Google Earth**.
- Other (Name & Date): _____.
- Previous determination(s). **Multiple determinations made within the project area during on site inspections for other jurisdictional proposals.**
- Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

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 CLEMENT.JAY.LANGDON.1
 ANGDON.1006 006350980
 350980 Date: 2020.06.16 13:20:50
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Jay L. Clement
 Senior Project Manager
 Maine Project Office

Kristen Chamberlain 6-12-2020

 Signature and date of
 person requesting PJD



**US Army Corps
of Engineers**
New England District

**INDIVIDUAL PERMIT
WORK-START NOTIFICATION FORM**
(Minimum Notice: Two weeks before work begins)

* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Permits and Enforcement Branch *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *

Corps of Engineers Permit No. NAE-2020-01150 was issued to the Maine Dept. of Transportation on 8/4/20 . This work is located in the Pleasant River and in adjacent freshwater wetlands at Milo, Maine in order to replace the existing deteriorated Pleasant Street bridge. On the northeastern side of the crossing, the roadway will be realigned to make Pleasant Street to Lakeview Road a through movement. The project will result in approximately 3,260 s.f. of permanent and 2,340 s.f. of temporary stream bed impact, and 1,545 s.f. of permanent and 1,565 s.f. of temporary wetland impact. MaineDOT WIN: 22627.00

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

Telephone Numbers: () _____ () _____

Proposed Work Dates: Start: _____ Finish: _____

Permittee/Agent Signature: _____ Date: _____

Printed Name: _____ Title: _____

Date Permit Issued: 8/4/20 _____ Date Permit Expires: _____ 12/31/25

FOR USE BY THE CORPS OF ENGINEERS

PM: _____ Clement _____ Submittals Required: _____ No
Inspection Recommendation: _____ Inspect as convenient _____



**US Army Corps
of Engineers**[®]
New England District

(Minimum Notice: Permittee must sign and return notification
within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

USACE Project Number: NAE-2020-01150

MaineDOT WIN: 22627.00

Name of Permittee: Maine Dept. of Transportation

Permit Issuance Date: 8/4/20

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

```

*****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Policy Analysis/Technical Support Branch, ATTN: Marie Farese *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
*****

```

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Printed Name

Date of Work Completion

() _____
Telephone Number

() _____
Telephone Number

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Maine Dept. of Transportation	File Number: NAE-2020-01150	Date:
Attached is:	See Section below	
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
X	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

If you only have questions regarding the appeal process you may also contact:

Mr. James W. Haggerty
Regulatory Program Manager (CENAD-PD-OR)
U.S. Army Corps of Engineers
Fort Hamilton Military Community
301 General Lee Avenue
Brooklyn, New York 11252-6700
Telephone number: 347-370-4650

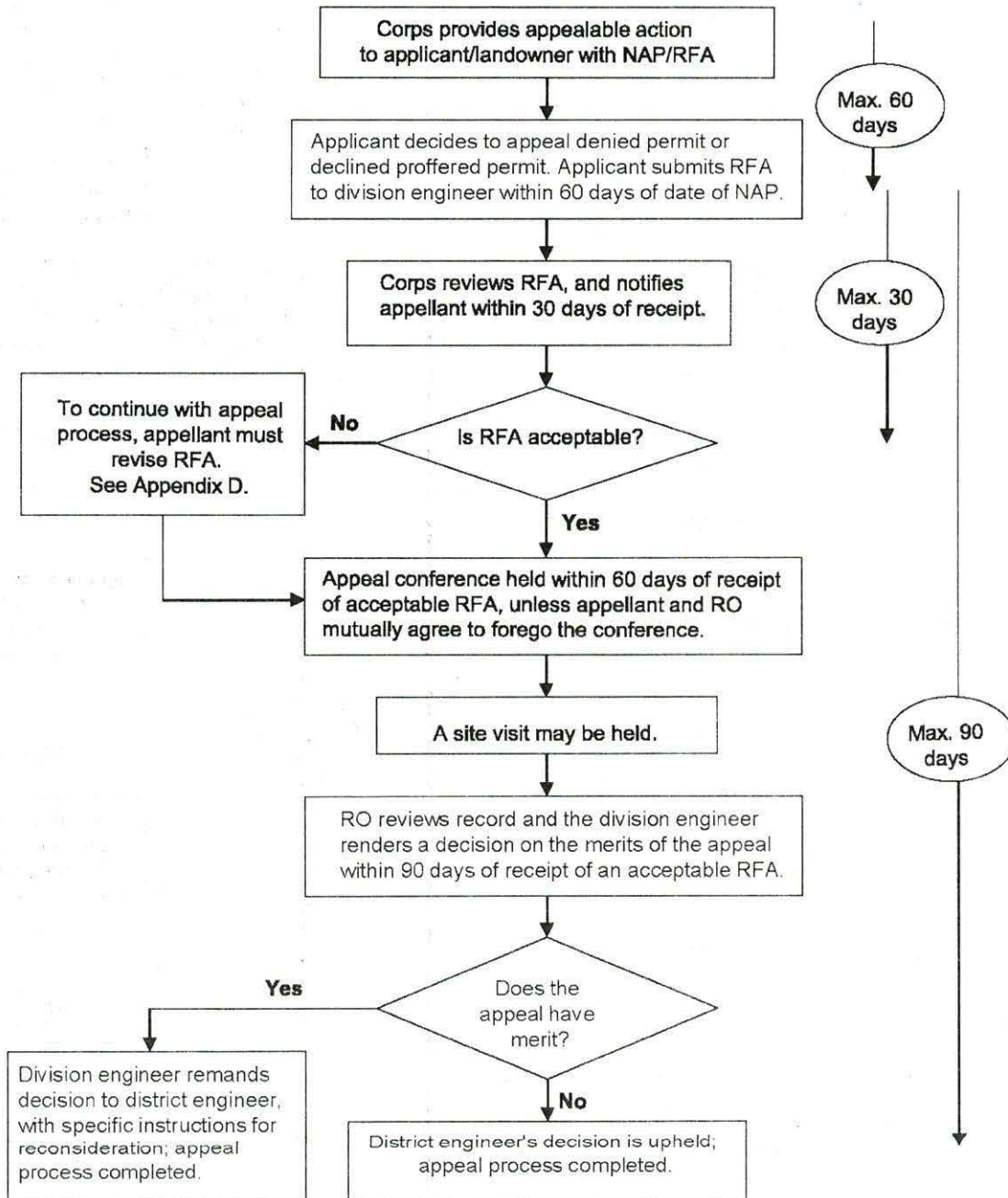
RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

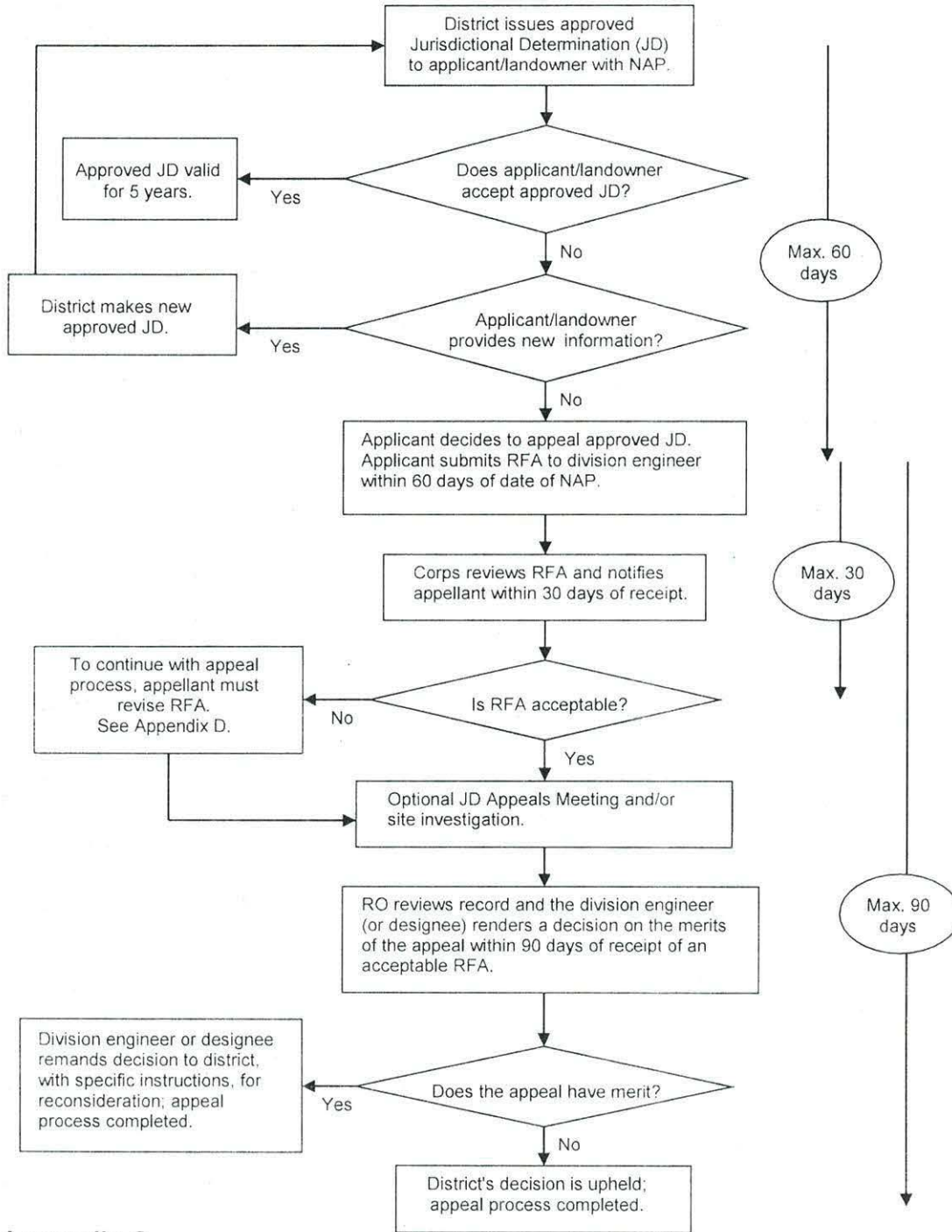
Administrative Appeal Process for Permit Denials and Proffered Permits



NOTE: If new information is provided to the Corps, the applicant will be asked if the applicant wishes to revise the project or record. If so, the appeal will be withdrawn and the case returned to the District for appropriate action. If not, then the Division Engineer will rule on the merits of the appeal based on the administrative record without consideration of the new information. However, the new information may cause the District Engineer to take action under 33 CFR 325.7, independent of the appeal process.

Appendix A

Administrative Appeal Process for Approved Jurisdictional Determination DETERM Determinations



Appendix C

MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL HIGHWAY ADMINISTRATION,
MAINE DEPARTMENT OF TRANSPORTATION,
AND MAINE STATE HISTORIC PRESERVATION OFFICER
REGARDING THE PLEASANT RIVER BRIDGE #3244
REPLACEMENT
PISCATAQUIS COUNTY, MAINE

WHEREAS, the Federal Highway Administration (FHWA) plans to fund the Pleasant River Bridge Replacement project (undertaking) in Milo, Maine; and

WHEREAS, the undertaking consists of replacing the Pleasant River Bridge #3244 which carries Pleasant Street over the Pleasant River located .09 of a mile west of Pleasant River Road; and

WHEREAS, the FHWA Maine Division Administrator is the "Agency Official" responsible for ensuring that the undertaking complies with Section 106 of the National Historic Preservation Act (NHPA) ((54 U.S.C. § 306108), as amended, and codified in its implementing regulations, 36 CFR Part 800, as amended (August 5, 2004)); and

WHEREAS, the Maine Department of Transportation (MaineDOT) has been delegated responsibilities under the November 4, 2004 *Programmatic Agreement Among Federal Highway Administration, Federal Transit Administration, the Advisory Council on Historic Preservation, The Maine State Historic Preservation Officer, and Maine Department of Transportation, Regarding the Implementation of the Federal Aid Highway and Federal Transit Programs in Maine*; and

WHEREAS, FHWA has defined the undertaking's area of potential effect (APE) for the Pleasant River Bridge Replacement project in accordance with 36 CFR Section 800.16(d); and

WHEREAS, FHWA has consulted with the Maine State Historic Preservation Officer (Maine SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the NHPA (16 U.S.C. Section 470(f)); and

WHEREAS, FHWA has determined that the undertaking has an adverse effect on the Pleasant River Bridge, which is eligible for listing in the National Register of Historic Places

(NRHP) under Criteria C; and

WHEREAS, FHWA has consulted with federally-recognized Indian tribes (Tribes) including the Aroostook Band of Micmacs, Houlton Band of Maliseet Indians, Passamaquoddy Tribe, and Penobscot Nation on the proposed undertaking in accordance with 36 CFR Section 800.3(f)(2). Emails were sent to the Tribes on November 4, 2015, in accordance with their preferred method of receiving information from the MaineDOT. The Penobscot Nation replied on November 17, 2015, and the Passamaquoddy Tribe replied on November 23, 2015. Both indicated that this undertaking will have no impact on a structure or site of historic, architectural or archaeological significance to their Tribes. Additional information was provided on the preferred alternative on January 30, 2020, via email. The Passamaquoddy Tribe and the Houlton Band of Maliseets responded on January 30, 2020, and indicated that this undertaking will have no impact on a structure or site of historic, architectural or archaeological significance to their Tribes; and

WHEREAS, in accordance with 36 CFR 800.2(d), FHWA has requested input and considered the views of consulting parties and the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties. Two public meetings were held on April 11, 2018, and July 23, 2019, to consult with and obtain input from the public. Information on effects to the Pleasant River Bridge was sent to the Town of Milo and posted to the MaineDOT website. A public notice was placed to solicit review and comment regarding effects to the Pleasant River Bridge. No comments were received. A public notice was placed to solicit requests for adaptive reuse proposals. No requests or inquiries were received; and

WHEREAS, in accordance with 36 CFR Section 800.6(c)(2), FHWA has invited the MaineDOT to be an invited signatory; and

WHEREAS, in accordance with 36 CFR Section 800.6(a)(1), FHWA has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect determination. FHWA invited the ACHP to consult and the ACHP has chosen not to participate in the consultation pursuant to 36 CFR Section 800.6(a)(1)(iii) on April 1, 2020; and

NOW, THEREFORE, the ACHP, FHWA and the Maine SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

FHWA, with assistance from MaineDOT, shall ensure that the following measures are carried out:

I. The Pleasant River Bridge #3244 will be recorded using the "Outline Format" narrative of the Maine Historic Engineering Recordation (MHER) recordation standards.

II. Duration

This agreement will be null and void if its terms are not carried out within five (5) years from the

date of its execution. Prior to such time, FHWA may consult with the other signatories to reconsider the terms of the agreement and amend it in accordance with Stipulation VIII.

III. Post-Review Discoveries

If potential historic properties are discovered or unanticipated effects on historic properties found, FHWA shall consult in accordance with 36 CFR Section 800.6(c)(6). If any unanticipated discoveries of historic properties or archaeological sites are encountered during the implementation of this undertaking, MaineDOT shall suspend work in the area of the discovery in accordance with Maine Department of Transportation Standard Specification J 05. 9: Historic and Archaeological Considerations and DOT shall immediately notify the FHWA. In compliance with 36 CFR §800.13, FHWA shall notify within 24 hours the ACHP, the Maine SHPO, and, if applicable, federally recognized tribal organizations that attach religious and/or cultural significance to the affected property. The Maine SHPO, FHWA, MaineDOT, and Tribal representatives, as appropriate, may conduct a joint field review within 72 hours of the notification to the FHWA. The FHWA, in consultation with the appropriate parties, will determine an appropriate treatment of the discovery prior to the resumption of construction activities in the area of the discovery.

IV. Discovery of Human Remains

MaineDOT shall ensure that any human remains and/or grave-associated artifacts encountered during the archaeological investigations are brought to the immediate attention of the FHWA, the Maine SHPO, and any federally recognized Tribes that may attach religious and/or cultural significance to the affected property. Notification will be within 48 hours of the discovery. No activities which might disturb or damage the remains will be conducted until FHWA, in consultation with the appropriate parties, has developed a treatment plan that considers the comments of the appropriate parties. All procedures will follow the guidance outlined in the National Park Service Publication National Register Bulletin 41: Guidelines for Evaluating and Registering Cemeteries and Burial Places, taking into account the Native American Graves Protection and Repatriation Act of 1990 (PL 101-601). If Native American cultural materials are encountered during the course of the project, MaineDOT will abide by the Maine Department of Transportation Standard Specification J 05. 9: Historic and Archaeological Considerations by stopping all activities in the area of discovery and notifying FHWA, Maine SHPO, ACHP, the Aroostook Band of Micmacs, Houlton Band of Maliseet Indians, Passamaquoddy Tribe, and Penobscot Nation.

V. Reporting

Each year following the execution of this agreement until it expires or is terminated, MaineDOT shall provide all parties to this agreement a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in MaineDOT's efforts to carry out the terms of this agreement. Failure to provide such summary report may be considered noncompliance with the terms of this MOA; and

VI. Dispute Resolution

Should any party to this agreement object at any time to any actions proposed or the manner in

which the terms of this MOA are implemented, FHWA shall consult with the objecting party(ies) to resolve the objection. If FHWA determines, within 30 days, that such objection(s) cannot be resolved, FHWA will:

- A. Forward all documentation relevant to the dispute to the ACHP in accordance with 36 CFR Section 800.2(b)(2). Upon receipt of adequate documentation, the ACHP shall review and advise FHWA on the resolution of the objection within 30 days. Any comment provided by the ACHP, and all comments from the parties to the MOA, will be taken into account by FHWA in reaching a final decision regarding the dispute.
- B. If the ACHP does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching its decision, FHWA will take into account all comments regarding the dispute from the parties to the MOA.
- C. FHWA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged. FHWA will notify all parties of its decision in writing before implementing that portion of the Undertaking subject to dispute under this stipulation. FHWA's decision will be final

VII. Resolving Public Objections

At any time during implementation of the terms of this Agreement, should any member of the public raise an objection in writing pertaining to such implementation to any signatory party to this Agreement, that signatory party shall immediately notify FHWA. FHWA shall:

- A. Immediately notify the other signatory parties in writing of the objection. Any signatory party may choose to comment on the objection to FHWA.
- B. Establish a 30-day comment period. FHWA shall consider the objection, and in reaching its decision, FHWA will take all comments from the other parties into account.
- C. Within 15 days following closure of the comment period, FHWA will render a decision regarding the objection and respond to the objecting party. FHWA will promptly notify the other signatory parties of its decision in writing, including a copy of the response to the objecting party. FHWA's decision regarding resolution of the objection will be final.
- D. Following the issuance of its final decision, FHWA may authorize the action subject to dispute hereunder to proceed in accordance with the terms of that decision. Nothing in this paragraph creates additional legal rights or responsibilities on the FHWA that are not already afforded under the NHPA.
- E. FHWA's responsibility to carry out all other actions or terms of this MOA that are not the subject of the objection remain unchanged and may proceed.

VIII. Amendments

If any signatory to this MOA, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall

immediately consult with the other parties to develop an amendment to this MOA pursuant to 36 CFR §800.6(c)(7) and 800.6(c)(8). The amendment will be effective on the date a copy signed by all of the original signatories is filed with the ACHP. If the signatories, including any invited signatory, cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation IX.

IX. Termination

If the MOA is not amended following the consultation set out in Stipulation VIII it may be terminated by any signatory or invited signatory. Within 30 days following termination, FHWA shall notify the signatories if it will initiate consultation to execute an MOA with the signatories under 36 CFR §800.6(c)(1) or request the comments of the ACHP under 36 CFR §800.7(a) and proceed accordingly.

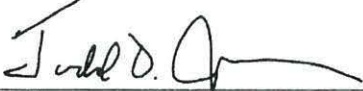
X. Coordination with Other Federal Reviews

In the event that another federal agency not initially a party to or subject to this MOA receives an application for funding/license/permit for the Undertaking as described in this MOA, that agency may fulfill its Section 106 responsibilities by stating in writing it concurs with the terms of this MOA and notifying the FHWA, Maine SHPO, and the ACHP that it intends to do so, and adherence to the terms of this MOA.

Execution of this MOA by the FHWA, Maine SHPO, and ACHP and implementation of its terms evidence that FHWA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORIES:

Federal Highway Administration

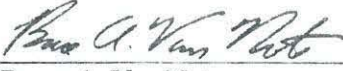
 Date 5/1/2020
Todd D. Jorgensen
Division Administrator

Maine Historic Preservation Commission

 Date 4/21/2020
Kirk Mohney
State Historic Preservation Officer

INVITED SIGNATORY:

Maine Department of Transportation

 Date 4/30/2020
Bruce A. Van Note
Commissioner



Environmental Summary Sheet

WIN: 22627.01

Date Submitted: 8/21/20

Town: Milo

CPD Team Leader: Andrea Brady

ENV Field Contact: Ryan Annis

NEPA Complete: Programmatic CE 23 CFR 771.117(d)(13) – 5/13/20

Section 106 Complete – Memorandum of Agreement Signed 5/1/20
Section 106 Resources: Pleasant River Bridge # 3244 – NR Eligible

Section 4(f) and 6(f) Section 4(f) Bridge # 3244 is a 4(f) resource. Section 4(f) Historic Bridge Programmatic Evaluation signed 5/11/20
Section 6(f) No takes

Maine Department of Inland Fisheries and Wildlife Mussel survey/relocation completed July 2020 – found 2 eastern pearlshell (not a listed species) under the bridge; no other species upstream or downstream

Section 7 Species of Concern: Atlantic Salmon DPS & Critical Habitat – Likely to Adversely Affect
Comments/References: Formal consultation with USFWS complete - BO signed 3/3/20. Special Conditions apply. See ACOE permit and Special Provision 105
Species of Concern: Northern Long-Eared Bat – Not Likely to Adversely Affect
Comments/References: Streamlined 4d Consultation Complete

Essential Fish Habitat Atlantic Salmon – Adverse Effect – Not substantial. Consultation complete.

Maine Department of Conservation/Public Lands, Submerged Land Lease Not applicable

Maine Land Use Planning Commission Not Applicable

Maine Department of Environmental Protection Permit by Rule (PBR)

*Applicable Standards and Permit are included with the contract

U.S. Army Corps of Engineers (ACOE): Section 404 of the Clean Water Act
U.S. Army Corps of Engineers Individual Permit # NAE-2020-01150
-Work Start Notification form to be completed by ENV Field Contact and submitted to ACOE with copy to Andrea Brady
-Compliance Certification Form to be completed by ENV Field Contact and submitted to ACOE with copy to Andrea Brady
-Maine Atlantic Salmon In-Lieu-Fee (ILF) payment for impacts to salmon habitat = \$12,268.80.
Contracts must notify Kristen Chamberlain at Notice of Intent to Award.

*Applicable Standards and Permit are included with the contract

Stormwater Review Not Applicable

Table with 3 columns: Special Provisions Required, N/A status, and Applicability status. Rows include Special Provision 105-Environmental Requirements, Special Provision 656-Minor Soil Disturbance, Standard Specification 656-Erosion Control Plan, Special Provision 203-Dredge Material, Special Provision 203-Special Fill-Streambed Materials, Special Provision 610-Stream Channel Rock, and General Note for Hazardous Waste.

*All permits and approvals based on plans/scope as of: 4/21/2020