

Updated 1/19/12

STATE 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:

- 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, Revision of December 2002.*

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 planholders 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 provide an email address to Diane Barnes or David Venner at 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 Patrick Corum at patrick.corum@maine.gov , 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 faxing questions and comments concerning specific Contracts that have been Advertised for Bid. Include additional numbered pages as required. Questions are to be faxed to the number listed in the Notice to Contractors. This is the only allowable mechanism 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.

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 **Strut Replacement** in the town of **Saint George**" will be received from contractors at the Reception Desk, Maine DOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on May 7, 2014 and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must demonstrate successful completion of projects of similar size and scope to be considered for the award of this contract. **We now accept electronic bids for those 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: WIN. 019267.00

Location: In Knox County, project is located on Rte.131. Located 0.2 mi. southerly of the intersection of Rte. 131 with School St.

Outline of Work: Strut Replacement and other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Maccougall 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 (not drawings), and bid results. For Project-specific information fax all questions to **Project Manager** Shawn Smith at (207) 624-3431. Questions received after 12:00 noon of Monday 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 Maine DOT Building in Augusta, Maine. 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 \$14.00 (\$18.00 by mail). Half size plans \$7.00 (\$10.00 by mail), Bid Book \$10 (\$13 by mail), Single Sheets \$2, payment in advance, all non-refundable.

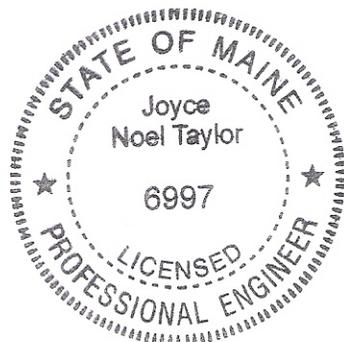
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$5,000.00 payable to Treasurer, State 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 State Laws.

All work shall be governed by "State of Maine, Department of Transportation, Standard Specifications, Revision of December 2002", price \$10 [\$13 by mail], and Standard Details, Revision of December 2002, price \$20 [\$25 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 Maine DOT to reject any or all bids.

Augusta, Maine
April 16, 2014



JOYCE NOEL TAYLOR P. E.
CHIEF ENGINEER

NOTICE TO CONTRACTORS - PREFERRED EMPLOYEES

Sec. 1303. Public Works; minimum wage

In the employment of laborers in the construction of public works, including state highways, by the State or by persons contracting for the construction, preference must first be given to citizens of the State who are qualified to perform the work to which the employment relates and, if they can not be obtained in sufficient numbers, then to citizens of the United States. Every contract for public works construction must contain a provision for employing citizens of this State or the United States. The hourly wage and benefit rate paid to laborers employed in the construction of public works, including state highways, may not be less than the fair minimum rate as determined in accordance with section 1308. Any contractor who knowingly and willfully violates this section is subject to a fine of not less than \$250 per employee violation. Each day that any contractor employs a laborer at less than the wage and benefit minimum stipulated in this section constitutes a separate violation of this section. [1997, c. 757, §1 (amd).]

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)

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 019267.00

Project(s): 019267.00

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	203.242 DIRTY BORROW	4.000 CY	_____	 _____	_____	 _____
0020	203.25 GRANULAR BORROW	25.000 CY	_____	 _____	_____	 _____
0030	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	50.000 CY	_____	 _____	_____	 _____
0040	403.208 HOT MIX ASPHALT 12.5 MM HMA SURFACE	70.000 T	_____	 _____	_____	 _____
0050	409.15 BITUMINOUS TACK COAT - APPLIED	30.000 G	_____	 _____	_____	 _____
0060	504.07 CONCRETE PIPE TIES	4.000 GP	_____	 _____	_____	 _____
0070	511.07 COFFERDAM: UPSTREAM	LUMP SUM		 LUMP SUM	_____	 _____
0080	511.07 COFFERDAM: DOWNSTREAM	LUMP SUM		 LUMP SUM	_____	 _____
0090	603.285 84 INCH REINFORCED CONCRETE PIPE CLASS III	72.000 LF	_____	 _____	_____	 _____
0100	606.366 GUARDRAIL, REMOVE & RESET TYPE 3C	50.000 LF	_____	 _____	_____	 _____
0110	610.08 PLAIN RIPRAP	35.000 CY	_____	 _____	_____	 _____
0120	613.319 EROSION CONTROL BLANKET	60.000 SY	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 019267.00

Project(s): 019267.00

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	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	1.000 UN	_____	 _____	_____	 _____
0140	619.1201 MULCH - PLAN QUANTITY	1.000 UN	_____	 _____	_____	 _____
0150	620.58 EROSION CONTROL GEOTEXTILE	10.000 SY	_____	 _____	_____	 _____
0160	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	450.000 LF	_____	 _____	_____	 _____
0170	629.05 HAND LABOR, STRAIGHT TIME	20.000 HR	_____	 _____	_____	 _____
0180	631.111 TRACTOR MOUNTED HYDRAULIC HAMMER	25.000 HR	_____	 _____	_____	 _____
0190	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	25.000 HR	_____	 _____	_____	 _____
0200	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	25.000 HR	_____	 _____	_____	 _____
0210	652.33 DRUM	20.000 EA	_____	 _____	_____	 _____
0220	652.34 CONE	20.000 EA	_____	 _____	_____	 _____
0230	652.35 CONSTRUCTION SIGNS	210.000 SF	_____	 _____	_____	 _____
0240	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	34.000 CD	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 019267.00

Project(s): 019267.00

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
0250	652.38 FLAGGER	360.000 HR	_____	 _____	_____	 _____
0260	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM	_____	 LUMP SUM	_____	 _____
0270	659.10 MOBILIZATION	LUMP SUM	_____	 LUMP SUM	_____	 _____
		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, PIN. **19267.00** for a **Strut Replacement** in the town of **Saint George**, County of **Knox**, 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 **August 16, 2014**. 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, Revision of December 2002 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, Revision of December 2002, Standard Details Revision of December 2002 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 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 Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN. 19267.00 - Strut Replacement - in the town of Saint George,

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, Revision of December 2002, 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 Revision of December 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

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

Fifth: 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: David Bernhardt, 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, PIN. **19267.00** for a **Strut Replacement** in the town of **Saint George**, County of **Knox**, 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 **August 16, 2014**. 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, Revision of December 2002 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, Revision of December 2002, Standard Details Revision of December 2002 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 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 Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN. 19267.00 - Strut Replacement - in the town of Saint George.

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, Revision of December 2002, 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 Revision of December 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

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

Fifth: 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: David Bernhardt, 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. 1224.00, 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, Revision of December 2002 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, Revision of December 2002, Standard Details Revision of December 2002, 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 Revision of December 2002 (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, Revision of December 2002, Standard Details Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 1234.00 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, Revision of December 2002, 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 Revision of 2002 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: David Bernhardt, 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

.....

SPECIAL PROVISION
SECTION 102.3
EXAMINATION OF DOCUMENTS, SITE, AND OTHER INFORMATION
(Geotechnical Information)

Add the following to Section 102.3, Examination of Documents, Site and Other Information:

102.3.1 Geotechnical Information In most cases, Geotechnical Information pertaining to the project has been collected and assembled. Bidders and Contractors are obligated to examine and, if necessary, obtain geotechnical information. If one is available, the project geotechnical report may be accessed at the following web address:

<http://www.maine.gov/mdot/contractors/>

The Department shall not be responsible for the Bidders' and Contractors' interpretations of or estimates or conclusions drawn from the Geotechnical Information. Data provided may not be representative of the subsurface conditions between the boring locations.

This section does not diminish the duties imposed upon parties in Section 102 or in any other sections.

**THIS DOCUMENT MUST BE CLEARLY POSTED AT THE PERTAINING STATE FUNDED PREVAILING WAGE
CONSTRUCTION SITE**

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

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

Title of Project -----Strut Replacement Region 2 St. George WIN 19267.00

Location of Project -St George-Tenants Harbor, Knox County

**2014 Fair Minimum Wage Rates
Highway & Earthwork Knox County**

Occupation Title	Minimum	Minimum	Total	Occupation Title	Minimum	Minimum	Total
	Wage	Benefit			Wage	Benefit	
Asphalt Raker	\$13.25	\$0.60	\$13.85	Ironworker - Structural	\$22.57	\$5.88	\$28.45
Backhoe Loader Operator	\$17.00	\$1.68	\$18.68	Laborers (Incl. Helpers & Tenders)	\$12.98	\$0.65	\$13.63
Boom Truck (Truck Crane) Operator	\$25.00	\$15.46	\$40.46	Laborer - Skilled	\$15.00	\$2.55	\$17.55
Bulldozer Operator	\$23.18	\$5.12	\$28.30	Loader Operator - Front-End	\$19.34	\$4.47	\$23.81
Carpenter	\$18.50	\$1.49	\$19.99	Mechanic- Maintenance	\$19.75	\$4.53	\$24.28
Carpenter - Rough	\$17.00	\$1.85	\$18.85	Painter	\$14.50	\$0.00	\$14.50
Cement Mason/Finisher	\$17.05	\$0.43	\$17.48	Paver Operator	\$17.00	\$4.20	\$21.20
Concrete Pump Operator	\$20.50	\$3.53	\$24.03	Pipelayer	\$35.72	\$21.35	\$57.07
Crane Operator =>15 Tons)	\$23.25	\$6.45	\$29.70	Pump Installer	\$21.00	\$2.77	\$23.77
Crusher Plant Operator	\$17.68	\$4.24	\$21.92	Reclaimer Operator	\$20.00	\$10.84	\$30.84
Diver	\$25.00	\$3.07	\$28.07	Roller Operator - Earth	\$19.36	\$22.45	\$41.81
Driller - Rock	\$18.00	\$5.01	\$23.01	Roller Operator - Pavement	\$17.95	\$6.02	\$23.97
Driller - Well	\$14.00	\$3.20	\$17.20	Roofer	\$16.00	\$1.40	\$17.40
Electrician - Licensed	\$24.50	\$5.86	\$30.36	Screed/Wheelman	\$18.00	\$5.12	\$23.12
Excavator Operator	\$17.71	\$2.90	\$20.61	Truck Driver - Light	\$15.50	\$2.99	\$18.49
Fence Setter	\$12.00	\$0.00	\$12.00	Truck Driver - Medium	\$15.40	\$5.08	\$20.48
Flagger	\$15.00	\$0.00	\$15.00	Truck Driver - Heavy	\$14.00	\$0.92	\$14.92
Grader/Scraper Operator	\$16.25	\$2.60	\$18.85	Truck Driver - Tractor Trailer	\$14.25	\$5.59	\$19.84
Highway Worker/Guardrail Installer	\$13.63	\$1.47	\$15.10	Truck Driver - Mixer (Cement)	\$11.42	\$2.90	\$14.32
Hot Top Plant Operator	\$21.75	\$10.34	\$32.09				

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.

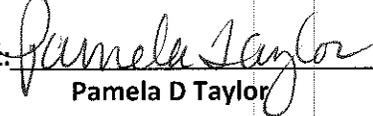
Apprentices - The minimum wage rate for registered apprentices are those set forth in the standards and policies of the Maine State Apprenticeship and Training Council for approved apprenticeship programs.

Posting of Schedule - Posting of this schedule is required in accordance with 26 MRSA §1301 et. seq., by any contractor holding a State contract for construction valued at \$50,000 or more and any subcontractors to such a contractor.

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 with the Secretary of State.

Determination No: HI-059-2014
Filing Date: March 19, 2014
Expiration Date: 12-31-2014

A true copy

Attest: 
Pamela D Taylor
Director
Bureau of Labor Standards

BLS 424HI (R2014) (Highway & Earthwork Knox)

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 copy of the specification.

Overview:

Utility	Aerial	Underground
Central Maine Power Company	X	
Northern New England Telephone Operations LLC	X	
Tenants Harbor Water District		X
Time Warner Cable (Augusta East Office)	X	

Central Maine Power Company	Mark Hall	(207)242-0511
Northern New England Telephone Operations LLC	Jim Scheid	(207)626-2031
Tenants Harbor Water District	David Beaulieu	(207)236-8428
Time Warner Cable (Augusta East Office)	Bruce Vines	(207)620-3412

Temporary utility adjustments are not anticipated on this project however, should the contractor choose to have any poles temporarily relocated, all work will be done by Pole owner at the

contractor's request and expense at no additional cost to the Department.

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

Utility working days are Monday through Friday, conditions permitting.

Should any adjustments be needed, the Utility will document adjustments and inform the Department prior to utility relocations.

The contractor shall give all Utilities **10 working days' notice** prior to beginning any work on this project

AERIAL

No Utility adjustments are anticipated as part of this project. If utility relocations, though unexpected, become necessary, they will be scheduled in compliance with Section 104 of the Standard Specifications and will be done by the utilities in conjunction with the work by the Contractor.

The Aerial utilities require **5 working days advance notice** prior to any operations involving work around their lines.

**** Special Note to Contractor**

No aerial utility relocations will occur on this project so the Contractor shall conduct culvert placements accordingly.

SUBSURFACE

Tenants Harbor Water District (THWD)

THWD has a water line located within the project limits. Coordinate with THWD in advance of excavation when within the proximity of the main so they can provide on-site representative. The contractor shall give THWD **5 working days' notice** prior to any paving on this project.

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 105
(LIMITATION OF OPERATION)**

1. A 24 hour notice is required for any changes in work schedule.
2. A 48 hour notice is required for a change in paving operations according to the Department's Standard Specification Section 105.3.1.
3. A 48 hour notice is required prior to working any Saturdays.
4. Unless otherwise directed by the Resident the Contractor will be limited to one paving operation per day (excluding hand work paving.)

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

In-Water work consists of any activity conducted below the normal high water 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 shall not be allowed between the dates of 10/2 and 7/14.

(In-Water work is allowed from 7/15 to 10/1.)

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

1. Ripley Brook

III. Special Conditions:

***All instream work must be completed during low tide.**

From the ACOE permit:

1. The permittee and contractor shall comply with all terms and conditions of this permit and with the permittee's construction plan. Modifications to the approved plan may require re-initiation of Endangered Species Consultation between the Corps and National Marine Fisheries Service and therefore, should not be implemented without first contacting the Corps.
2. The permittee shall hold a pre-construction meeting with appropriate Maine DOT Environmental Office staff, other DOT staff, and the DOT construction crew or contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon, shortnose sturgeon, and Atlantic sturgeon and to emphasize the importance of these measures for protecting Atlantic salmon Critical Habitat. Corps, FHWA, and Service staff will be notified of and attend this meeting as practicable.
4. All instream work will be conducted during low tide, from July 15 to October 1 of any year.
5. The permittee and his contractor(s) shall minimize the potential for effects to Atlantic salmon and their habitat and both sturgeon species by conducting all construction activities for the project in accordance with the Maine DOT - approved Soil Erosion and Water Pollution Control Plan. Instream turbidity will be visually monitored and all erosion controls will be inspected daily to ensure that the measures taken are adequate. If inspection shows that the erosion controls are ineffective, immediate action will be taken to repair, replace, or reinforce controls as necessary.
6. All areas of temporary waterway or wetland fill will be restored to their original contour and character upon completion of the projects.
7. Disturbed areas adjacent to the waterways will be stabilized and re-vegetated with a seed mix appropriate for riparian areas in Maine.
8. All cofferdams shall be removed from the stream immediately following completion of construction, allowing for minor delays due to high stream flows following heavy precipitation, so that fish and other aquatic organism passage is not unnecessarily restricted. If the project is not completed but there will be substantial delays in construction, cofferdams will need to be at least partially removed to allow full passage of fish and other aquatic organisms until construction resumes.
9. 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) must be inspected and 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.
10. The permittee and his contractors shall follow measures designed to avoid and minimize effects to streams from hazardous materials associated with construction activities. These measures include but are not limited to the following:

a. All vehicle refueling 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 instream work shall be cleaned of external oil, grease, dirt, and mud. Any leaks or accumulations of these materials would be corrected before entering streams or areas that drain directly to streams or wetlands.

11. A post-project report, confirming completion of construction and the successful application of all terms and conditions of this permit, shall be submitted within four (4) weeks of the project's completion. The report shall include, but not be limited to, a narrative and photos documenting project elements outlined in the construction plan and referenced in these conditions as well as the amount of incidental take of Atlantic salmon. This report may accompany the Compliance Certification Form referenced in Condition 13. Individual findings for each project site are required but the permittee may submit a combined report for all of the projects depending on the timing of each project's construction.

12. Maine DOT shall evaluate fish passage conditions at the replacement culvert structure at St. George within a year after construction. Measurements shall be taken during low tide and low flow, when depths are more likely to be critical, and during high tide and higher flow conditions (e.g., about average annual minimum and average annual), when velocities and/or turbulence are more likely to be critical, in order to sufficiently evaluate fish passage conditions. The Corps and NMFS shall be provided with a summary of findings that provides information regarding depths and velocities in the structure(s) or at the inlet and outlet if culvert size limits access.

The evaluation shall include stream flow measurements and photos of the culvert inlet. Photos shall be taken during the inspection to document characteristics of the culvert inlet(s), outlet(s), bed details, and the stream upstream and downstream from the road surface. Maine DOT staff shall note any channel condition changes, including scour and bedload deposition in the stream above and below the project area. Additionally, they shall assess the characteristics of the substrate deposited in the structure (including type, size, depth, and relative amounts). Velocities and depths will be compared to the results of known swimming capabilities of adult Atlantic salmon.

13. 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. You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals).

14. The permittee shall assure 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 the work. If the permit is issued after construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. 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 of Engineers jurisdiction.

IV. Approvals:

1. Temporary Soil Erosion and Water Pollution Control Plan

V. All activities are prohibited (including placement and removal of cofferdams unless otherwise permitted by Regulatory Agencies) below the normal high water 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".

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

When working in Tidal streams flow needs to be provided in both directions

NOTE: Regulatory Review and Approval is required to modify the existing In-Water work window.

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

The northern long eared bat (*Myotis septentrionalis*) (hereafter referred to as 'NLE bat') was proposed for listing under the Federal Endangered Species Act (ESA) on October 2, 2013 (Federal Register Vol. 78, No. 191, pages 61046-61080). This species is expected to be listed as Endangered under the ESA around October 2014.

The following conditions must be met to minimize harm to the NLE bat.

I. Special Conditions:

1. **All clearing for the entire project must occur prior to October 2014.**

SPECIAL PROVISION

SECTION 107

TIME

(Scheduling of Work – Projected Payment Schedule)

Description The Contractor shall also provide the Department with a Quarterly Projected Payment Schedule that estimates the value of the Work as scheduled, including requests for payment of Delivered Materials. The Projected Payment Schedule must be in accordance with the Contractor's Schedule of Work and prices submitted by the Contractor's Bid. The Contractor shall submit the Projected Payment Schedule as a condition of Award.

SPECIAL PROVISION
SECTION 107
SCHEDULING OF WORK

Replace Section 107.4.2 with the following:

”107.4.2 Schedule of Work Required Within 21 Days of Contract Execution and before beginning any on-site activities, the Contractor shall provide the Department with its Schedule of Work. The Contractor shall plan the Work, including the activity of Subcontractors, vendors, and suppliers, such that all Work will be performed in Substantial Conformity with its Schedule of Work. The Schedule must include sufficient time for the Department to perform its functions as indicated in this Contract, including QA inspection and testing, approval of the Contractor's TCP, SEWPCP and QCP, and review of Working Drawings.

At a minimum, the Schedule of Work shall include a bar chart which shows the major Work activities, milestones, durations, **submittals and approvals**, and a timeline. Milestones to be included in the schedule include: (A) start of Work, (B) beginning and ending of planned Work suspensions, (C) Completion of Physical Work, and (D) Completion. If the Contractor Plans to Complete the Work before the specified Completion date, the Schedule shall so indicate.

Any restrictions that affect the Schedule of Work such as paving restrictions or In-Stream Work windows must be charted with the related activities to demonstrate that the Schedule of Work complies with the Contract.

The Department will review the Schedule of Work and provide comments to the Contractor within 20 days of receipt of the schedule. The Contractor will make the requested changes to the schedule and issue the finalized version to the Department.”

St. George
019267.00
Route 131
March 18, 2014

**SPECIAL PROVISION
SECTION 107
PROSECUTION & PROGRESS
(CONTRACT TIME)**

1. The Contractor will be allowed to commence work on **July 14, 2014** provided that all required plans/submittals have been received and approved by the Department.
2. Completion date for this Contract is **August 16, 2014**.
3. For every workday not worked once operations commence, the Contractor will be charged Supplemental Liquidated Damages per calendar day at the rate stated in Section 107.8 of the Supplemental Specification dated January 25, 2013 to the (State of Maine Department of Transportation Standard Specifications – Revision of 2012).

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(Dredge Materials)

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

Work associated with the Route 131 Large Culvert Replacement initiative will require the excavation of select Dredge Material. It is anticipated that less than 100-cubic yards of Dredge Material will be excavated. There is onsite Beneficial Use for all of the Dredge Materials.

It is acknowledged that the excavation of Dredge for this work may include some boulders. The Maine Department of Environmental Protection 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 the Dredge Material Quantities.

The contractor shall Beneficially Use all Dredge Material excavated at the Route 131 Large Culvert Replacement project in an area adjacent to and draining into the dredged water body. No more than 100-cubic yards of Dredge Material may be excavated.

CONSTRUCTION REQUIREMENTS

Management: The contractor shall Beneficially Use all Dredge Material excavated at the Roy Brook Bridge Culvert Rehabilitation project in areas adjacent to and draining into the dredged water body. No more than 100-cubic yards of Dredge Material may be excavated at any of the individual culvert sites.

Method of Measurement: Dredge Material will be measured by the cubic yard of material removed.

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 excavation, dewatering, managing, transporting, and placement of the Dredge Materials.

SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(Dirty Borrow)

Description: This work shall consist of furnishing and placing dirty borrow for seeding, in reasonably close conformity with the thicknesses called for on the plans or as authorized by the Resident.

Materials: Materials shall conform to the requirements specified in the following Sections of Division 700 – Materials:

Common Borrow	703.18
Humus	717.09

Dirty Borrow shall meet the requirements of Section 703.18 Common Borrow with the following addition and deletions: 703.18 Second sentence, delete the word peat.

Dirty Borrow shall contain no particles or fragments with a maximum dimension in excess of the compacted thickness of the layer being placed.

The granular material must have at least 20 percent, but not more than 50 percent, of the minus 25 mm [1 in] material passing the 75 micron [No. 200] mesh sieve.

The Dirty Borrow must have an organic humus content of 3% to 8% as determined by ignition test.

The Contractor may elect to manufacture Dirty Borrow from a combination of project materials that the contractor is entitled to use, combined with other suitable materials furnished by the Contractor.

CONSTRUCTION REQUIREMENTS

Application of Dirty Borrow: Dirty Borrow shall be spread evenly and uniformly on prepared areas in a thickness as shown on the plans.

Method of Measurement: Dirty Borrow will be measured by the cubic meter [cubic yard] complete in place after finishing to the required depth as shown on the plans or directed by the Resident. Lateral measurements will be parallel with the slope of the ground.

Basis of Payment: The accepted quantities of dirty borrow will be paid for at the contract unit price per cubic meter [cubic yard] complete in place.

Payment shall be full compensation for furnishing and placing the Dirty Borrow.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
203.242 Dirty Borrow	Cubic Meter [Cubic Yard]

SPECIAL PROVISION 400 - PAVEMENTS

SECTION 401 - HOT MIX ASPHALT PAVEMENT

401.01 Description The Contractor shall furnish a uniformly blended, homogeneous mixture placed as one or more courses of Hot Mix Asphalt Pavement (HMA) on an approved base in accordance with the contract documents and in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the plans or established by the Resident. The Department will accept this work under Quality Assurance provisions, in accordance with these specifications and the requirements of Section 106 – Quality, the provisions of AASHTO M 323 except where otherwise noted in sections 401 and 703 of these specifications, and the MaineDOT Policies and Procedures for HMA Sampling and Testing.

401.02 Materials Materials shall meet the requirements specified in Section 700 - Materials:

Asphalt Cement	702.01
Aggregates for HMA Pavement	703.07
RAP for HMA Pavement	703.08
HMA Mixture Composition	703.09

401.03 Composition of Mixtures The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. HMA shall be designed and tested according to AASHTO R35 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF).

The Contractor shall submit for Department approval a JMF to the Central Laboratory in Bangor for each mixture to be supplied. The Department may approve 1 active design per nominal maximum size, per traffic level, per plant, plus a 9.5mm “fine” mix for shimming and where required, a non-RAP design for bridge decks. The Department shall then have 15 calendar days in which to process a new design before approval. The JMF shall establish a single percentage of aggregate passing each sieve size within the limits shown in section 703.09. The mixture shall be designed and produced, including all production tolerances, to comply with the allowable control points for the particular type of mixture as outlined in 703.09. The JMF shall state the original source, gradation, and percentage to be used of each portion of the aggregate including RAP when utilized, and mineral filler if required. It shall also state the proposed PGAB content, the name and location of the refiner, the supplier, the source of PGAB submitted for approval, the type of PGAB modification if applicable, and the location of the terminal if applicable.

In addition, the Contractor shall provide the following information with the proposed JMF:

- Properly completed JMF indicating all mix properties (Gmm, VMA, VFB, etc.)
- Stockpile Gradation Summary
- Design Aggregate Structure Consensus Property Summary
- Design Aggregate Structure Trial Blend Gradation Plots (0.45 power chart)
- Trial Blend Test Results for at least three different asphalt contents
- Design Aggregate Structure for at least three trial blends
- Test results for the selected aggregate blend at a minimum of three binder contents
- Specific Gravity and temperature/viscosity charts for the PGAB to be used
- Recommended mixing and compaction temperatures from the PGAB supplier
- Material Safety Data Sheets (MSDS) For PGAB
- Asphalt Content vs. Air Voids trial blend curve
- Test report for Contractor’s Verification sample

Summary of RAP test results (if used), including count, average and standard deviation of binder content and gradation

At the time of JMF submittal, the Contractor shall identify and make available the stockpiles of all proposed aggregates at the plant site. There must be a minimum of 150 ton for stone stockpiles, 75 ton for sand stockpiles, and 50 ton of blend sand before the Department will sample. The Department shall obtain samples for laboratory testing. The Contractor shall also make available to the Department the PGAB proposed for use in the mix in sufficient quantity to test the properties of the asphalt and to produce samples for testing of the mixture. Before the start of paving, the Contractor and the Department shall split a production sample for evaluation. The Contractor shall test its split of the sample and determine if the results meet the requirements of the Department’s written policy for mix design verification (See MaineDOT Policies and Procedures for HMA Sampling and Testing available at the Central Laboratory in Bangor). If the results are found to be acceptable, the Contractor will forward their results to the Department’s Lab, which will test the Department’s split of the sample. The results of the two split samples will be compared and shared between the Department and the Contractor. If the Department finds the mixture acceptable, an approved JMF will be forwarded to the Contractor and paving may commence. The first day’s production shall be monitored, and the approval may be withdrawn if the mixture exhibits undesirable characteristics such as checking, shoving or displacement.

The Contractor shall be allowed to submit aim changes within 24 hours of receipt of the first Acceptance test result. Should all of the Acceptance samples of a Lot be obtained prior to the receipt of the first Acceptance result, the Department will not allow the aim changes to be applied to that Lot. Adjustments will be allowed of up to 2% on the percent passing the 2.36 mm sieve through the 0.075 mm and 3% on the percent passing the 4.75 mm or larger sieves. Adjustments will be allowed on the %PGAB of up to 0.2%. Adjustments will be allowed on GMM of up to 0.010.

The Contractor shall submit a new JMF for approval each time a change in material source or materials properties is proposed. The same approval process shall be followed. The cold feed percentage of any aggregate may be adjusted up to 10 percentage points from the amount listed on the JMF, however no aggregate listed on the JMF shall be eliminated. The cold feed percentage for RAP may be reduced up to 10 percentage points from the amount listed on the JMF and shall not exceed the percentage of RAP approved in the JMF or for the specific application under any circumstances.

TABLE 1: VOLUMETRIC DESIGN CRITERIA

Design ESAL’s (Millions)	Required Density (Percent of G _{mm})			Voids in the Mineral Aggregate (VMA)(Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
	N _{initial}	N _{design}	N _{max}	Nominal Maximum Aggregate Size (mm)						
				25	19	12.5	9.5	4.75		
<0.3	≤91.5	96.0	≤98.0	13.0	14.0	15.0	16.0	16.0	70-80	0.6-1.2
0.3 to <3	≤90.5								65-80	
3 to <10	≤89.0								65-80*	
10 to <30										
≥ 30										

*For 9.5 mm nominal maximum aggregate size mixtures, the maximum VFB is 82.

*For 4.75 mm nominal maximum aggregate size mixtures, the maximum VFB is 84.

401.031 Warm Mix Technology The Contractor may place Hot Mix Asphalt Pavement produced with an accepted WMA technology if approved by the Department. Methods or technologies shall generally be at the Contractors option, but will be limited to proven, Agency and Industry accepted practice. Mixture production,

placement and volumetric testing details, including temperatures, shall be included in the project specific QCP, and submitted to the Department for approval prior to any work.

401.04 Temperature Requirements After the JMF is established, the temperatures of the mixture shall conform to the following tolerances:

- In the truck at the mixing plant – allowable range 275 to 325°F
- At the Paver – allowable range 275 to 325°F

The JMF and the mix subsequently produced shall meet the requirements of Tables 1 and Section 703.07.

401.05 Performance Graded Asphalt Binder Unless otherwise noted in Special Provision 403 - Hot Mix Asphalt Pavement, the Contractor may utilize either a 64-28 or 58-28 PGAB. The Contractor must stipulate which PGAB grading will be used to construct the entire HMA pavement structure prior to starting work. For mixtures containing greater than 20 percent but no more than 30 percent RAP the PGAB shall be PG 58-34 (or PG 52-34 when approved by the Department). The PGAB shall meet the applicable requirements of AASHTO M320 - Standard Specification for PGAB. Polymer-modified PGAB shall meet the applicable requirements of AASHTO MP 19. The Contractor shall provide the Department with an approved copy of the Quality Control Plan for PGAB in accordance with AASHTO R 26 Certifying Suppliers of PGAB.

The Contractor shall request approval from the Department for a change in PGAB supplier or source by submitting documentation stating the new supplier or source a minimum of 24 hours prior to the change. In the event that the PGAB supplier or source is changed, the Contractor shall make efforts to minimize the occurrence of PGAB co-mingling.

401.06 Weather and Seasonal Limitations The State is divided into two paving zones as follows:

- a. Zone 1 Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais.
- b. Zone 2 Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.

The Contractor may place Hot Mix Asphalt Pavement for use other than a traveled way wearing course in either Zone between the dates of April 15th and November 15th, provided that the air temperature as determined by an approved thermometer (placed in the shade at the paving location) is 40°F or higher.

The Contractor may place Hot Mix Asphalt Pavement produced with an accepted WMA technology for any base, intermediate base, or shim course in either Zone between the dates of April 15th and November 15th, provided that the air temperature as determined by an approved thermometer (placed in the shade at the paving location) is 35°F or higher, and the area to be paved is not frozen. The Hot Mix Asphalt Pavement produced with an approved WMA technology shall meet the requirements of section 401.04 - Temperature Requirements, unless otherwise approved by the Department.

The Contractor may place Hot Mix Asphalt Pavement as traveled way wearing course in Zone 1 between the dates of May 1st and the Saturday following October 1st and in Zone 2 between the dates of April 15th and the Saturday following October 15th, provided the air temperature determined as above is 50°F or higher. For the purposes of this Section, the traveled way includes truck lanes, ramps, approach roads and auxiliary lanes. The atmospheric temperature for all courses on bridge decks shall be 50°F or higher.

Hot Mix Asphalt Pavement used for curb, driveways, sidewalks, islands, or other incidentals is not subject to seasonal limitations, except that conditions shall be satisfactory for proper handling and finishing of the mixture. All mixtures used for curb, driveways, sidewalks, islands, or other incidentals shall conform to section 401.04 - Temperature Requirements. Unless otherwise specified, the Contractor shall not place Hot Mix Asphalt Pavement on a wet or frozen surface and the air temperature shall be 40°F or higher.

On all sections of overlay with wearing courses less than 1 inch thick, the wearing course for the travelway and adjacent shoulders shall be placed between the dates of May 15th and the Saturday following September 15th.

On all sections of overlay with wearing courses less than 1 inch thick, the wearing course for the travelway and adjacent shoulders shall be placed between the dates of June 1st and the Saturday following September 1st if the work is to be performed, either by contract requirement, or Contractor option, during conditions defined as “night work”.

401.07 Hot Mix Asphalt Plant

401.071 General Requirements HMA plants shall conform to AASHTO M156.

a. Truck Scales When the hot mix asphalt is to be weighed on scales meeting the requirements of Section 108 - Payment, the scales shall be inspected and sealed by the State Sealer as often as the Department deems necessary to verify their accuracy.

Plant scales shall be checked prior to the start of the paving season, and each time a plant is moved to a new location. Subsequent checks will be made as determined by the Resident. The Contractor will have at least ten 20 Kg [50 pound] masses for scale testing.

401.072 Automation of Batching Batch plants shall be automated for weighing, recycling, and monitoring the system. In the case of a malfunction of the printing system, the requirements of Section 401.074 c. of this specification will apply.

The batch plant shall accurately proportion the various materials in the proper order by weight. The entire batching and mixing cycle shall be continuous and shall not require any manual operations. The batch plant shall use auxiliary interlock circuits to trigger an audible alarm whenever an error exceeding the acceptable tolerance occurs. Along with the alarm, the printer shall print an asterisk on the delivery slip in the same row containing the out-of-tolerance weight. The automatic proportioning system shall be capable of consistently delivering material within the full range of batch sizes. When RAP is being used, the plant must be capable of automatically compensating for the moisture content of the RAP.

All plants shall be equipped with an approved digital recording device. The delivery slip load ticket shall contain information required under Section 108.1.3 - Provisions Relating to Certain Measurements, Mass and paragraphs a, b, and c of Section 401.073

401.073 Automatic Ticket Printer System on Automatic HMA Plant An approved automatic ticket printer system shall be used with all approved automatic HMA plants. The requirements for delivery slips for payment of materials measured by weight, as given in the following Sections, shall be waived: 108.1.3 a., 108.1.3 b., 108.1.3 c., and 108.1.3 d. The automatic printed ticket will be considered as the Weight Certificate.

The requirements of Section 108.1.3 f. - Delivery Slips, shall be met by the weigh slip or ticket, printed by the automatic system, which accompanies each truckload, except for the following changes:

- a. The quantity information required shall be individual weights of each batch or total net weight of each truckload.
- b. Signatures (legible initials acceptable) of Weighmaster (required only in the event of a malfunction as described in 401.074 c.).
- c. The MaineDOT designation for the JMF.

401.074 Weight Checks on Automatic HMA Plant At least twice during each 5 days of production either of the following checks will be performed:

- a. A loaded truck may be intercepted and weighed on a platform scale that has been sealed by the State Sealer of Weights and Measures within the past 12 months. The inspector will notify the producer to take corrective action on any discrepancy over 1.0%. The producer may continue to operate for 48 hours under the following conditions.
 1. If the discrepancy does not exceed 1.5%; payment will still be governed by the printed ticket.
 2. If the discrepancy exceeds 1.5%, the plant will be allowed to operate as long as payment is determined by truck platform scale net weight.

If, after 48 hours the discrepancy has not been addressed and reduced below 1.0%, than plant operations will cease. Plant operation may resume after the discrepancy has been brought within 1.0%.

b. Where platform scales are not readily available, a check will be made to verify the accuracy and sensitivity of each scale within the normal weighing range and to assure that the interlocking devices and automatic printer system are functioning properly.

c. In the event of a malfunction of the automatic printer system, production may be continued without the use of platform truck scales for a period not to exceed the next two working days, providing total weights of each batch are recorded on weight tickets and certified by a Licensed Public Weighmaster.

401.08 Hauling Equipment Trucks for hauling Hot Mix Asphalt Pavement shall have tight, clean, and smooth metal dump bodies, which have been thinly coated with a small amount of approved release agent to prevent the mixture from adhering to the bodies. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.

All truck dump bodies shall have a cover of canvas or other water repellent material capable of heat retention, which completely covers the mixture. The cover shall be securely fastened on the truck, unless unloading.

All truck bodies shall have an opening on both sides, which will accommodate a thermometer stem. The opening shall be located near the midpoint of the body, at least 12 in above the bed.

401.09 Pavers Pavers shall be self-contained, self-propelled units with an activated screed (heated if necessary) capable of placing courses of Hot Mix Asphalt Pavement in full lane widths specified in the contract on the main line, shoulder, or similar construction.

On projects with no price adjustment for smoothness, pavers shall be of sufficient class and size to place Hot Mix Asphalt Pavement over the full width of the mainline travel way with a 10 ft minimum main screed with activated extensions.

The Contractor shall place Hot Mix Asphalt Pavement on the main line with a paver using an automatic grade and slope controlled screed, unless otherwise authorized by the Department. The controls shall automatically adjust the screed and increase or decrease the layer thickness to compensate for irregularities in the preceding course. The controls shall maintain the proper transverse slope and be readily adjustable so that transitions and superelevated curves can be properly paved. The controls shall operate from a fixed or moving reference such as a grade wire or ski type device (floating beam) with a minimum length of 30 ft, a non-contact grade control with a minimum span of 24 ft, except that a 40 ft reference shall be used on Expressway projects.

The Contractor shall operate the paver in such a manner as to produce a visually uniform surface texture and a thickness within the requirements of Section 401.101 - Surface Tolerances. The paver shall have a receiving hopper with sufficient capacity for a uniform spreading operation and a distribution system to place the mixture uniformly, without segregation in front of the screed. The screed assembly shall produce a finished surface of the required evenness and texture without tearing, shoving, or gouging the mixture. Pavers with extendible screeds shall have auger extensions and tunnel extenders as per the manufacturer's recommendations, a copy of which shall be available if requested.

The Contractor shall have the paver at the project site sufficiently before the start of paving operations to be inspected and approved by the Department. The Contractor shall repair or replace any paver found worn or defective, either before or during placement, to the satisfaction of the Department. Pavers that produce an unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA on MaineDOT projects.

On a daily basis, the Contractor shall perform density testing across the mat being placed, prior to being compacted by equipment at 12 in intervals. If the density values vary by more than 2.0% from the mean, the Contractor shall make adjustments to the screed until the inconsistencies are remedied. Failure to replace or repair defective placement equipment may result in a letter of suspension of work and notification of a quality control violation resulting in possible monetary penalties as governed by Section 106 - Quality

401.10 Rollers Rollers shall be static steel, pneumatic tire, oscillatory, or approved vibrator type. Rollers shall be in good mechanical condition, capable of starting and stopping smoothly, and be free from backlash when reversing direction. Rollers shall be equipped and operated in such a way as to prevent the picking up of hot mixed material by the roller surface. The use of rollers, which result in crushing of the aggregate or in displacement of the HMA will not be permitted. Any Hot Mix Asphalt Pavement that becomes loose, broken, contaminated, shows an excess or deficiency of Performance Graded Asphalt Binder, or is in any other way defective shall be removed and replaced at no additional cost with fresh Hot Mix Asphalt Pavement, which shall be immediately compacted to conform to the adjacent area.

The Contractor shall repair or replace any roller found to be worn or defective, either before or during placement, to the satisfaction of the Department. Rollers that produce grooved, unevenly textured or non-uniform mat will be repaired or replaced before continuing to place HMA on MaineDOT projects. The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option, provided specification densities are attained and with the following requirements:

- a. On variable-depth courses, the first lift of pavement over gravel, reclaimed pavement, on irregular or milled surfaces, or on bridges, at least one roller shall be 16 ton pneumatic-tired. Unless otherwise allowed by the Resident, pneumatic-tired rollers shall be equipped with skirting to minimize the pickup of HMA materials from the paved surface. When required by the Resident, the roller shall be ballasted to 20 ton.
- b. Compaction with a vibratory or steel wheel roller shall precede pneumatic-tired rolling, unless otherwise authorized by the Department.
- c. Vibratory rollers shall not be operated in the vibratory mode when checking or cracking of the mat occurs, or on bridge decks.
- d. Any method, which results in cracking or checking of the mat, will be discontinued and corrective action taken.
- e. The use of an oscillating steel roller shall be required to compact all mixtures placed on bridge decks.

The maximum operating speed for a steel wheel or pneumatic roller shall not exceed the manufacturer's recommendations, a copy of which shall be available if requested.

401.101 Surface Tolerances The Department will check surface tolerance utilizing the following methods :

- a.) A 16 ft straightedge or string line placed directly on the surface, parallel to the centerline of pavement.
- b.) A 10 ft straightedge or string line placed directly on the surface, transverse to the centerline of pavement.

The Contractor shall correct variations exceeding $\frac{1}{4}$ in by removing defective work and replacing it with new material as directed by the Department. The Contractor shall furnish a 10 foot straightedge for the Departments use.

401.11 Preparation of Existing Surface The Contractor shall thoroughly clean the surface upon which Hot Mix Asphalt Pavement is to be placed of all objectionable material. When the surface of the existing base or pavement is irregular, the Contractor shall bring it to uniform grade and cross section. All surfaces shall have a tack coat applied prior to placing any new HMA course. Tack coat shall conform to the requirements of Section 409 – Bituminous Tack Coat, Section 702 – Bituminous Material, and all applicable sections of the contract.

401.12 Hot Mix Asphalt Documentation The Contractor and the Department shall agree on the amount of Hot Mix Asphalt Pavement that has been placed each day. All delivery slips shall conform to the requirements of 401.073.

401.13 Preparation of Aggregates The Contractor shall dry and heat the aggregates for the HMA to the required temperature. The Contractor shall properly adjust flames to avoid physical damage to the aggregate and to avoid depositing soot on the aggregate.

401.14 Mixing The Contractor shall combine the dried aggregate in the mixer in the amount of each fraction of aggregate required to meet the JMF. The Contractor shall measure the amount of PGAB and introduce it into the mixer in the amount specified by the JMF.

The Contractor shall produce the HMA at the temperature established by the JMF.

The Contractor shall dry the aggregate sufficiently so that the HMA will not flush, foam excessively, or displace excessively under the action of the rollers. The Contractor shall introduce the aggregate into the mixer at a temperature of not more than 25°F above the temperature at which the viscosity of the PGAB being used is 0.150 Pa·s.

The Contractor shall store and introduce into the mixer the Performance Graded Asphalt Binder at a uniformly maintained temperature at which the viscosity of the PGAB is between 0.150 Pa·s and 0.300 Pa·s. The aggregate shall be coated completely and uniformly with a thorough distribution of the PGAB. The Contractor shall determine the wet mixing time for each plant and for each type of aggregate used. The resultant material shall be a uniformly blended, homogeneous HMA mixture.

401.15 Spreading and Finishing On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the Contractor shall spread, rake, and lute the HMA with hand tools to provide the required compacted thickness. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.

On roadways with adjoining lanes carrying traffic, the Contractor shall place each course over the full width of the traveled way section being paved that day, unless otherwise noted by the Department in Section 403 - Hot Mix Asphalt Pavement.

In addition, hot mix asphalt pavement placed on bridges shall also conform to Section 508.04 and the following requirements.

- a. The bottom course shall be placed with an approved rubber mounted paver of such type and operated in such a manner that the membrane waterproofing will not be damaged in any way.
- b. The top course shall not be placed until the bottom course has cooled sufficiently to provide stability.
- c. The Contractor will not be required to cut sample cores from the compacted pavement on the bridge deck, unless otherwise directed by Special Provision.
- d. After the top course has been placed, the shoulder areas shall be sealed 3 ft wide with two applications of an emulsified bituminous sealer meeting the requirements of Section 612.03 – Sealing and Section 702.12 - Emulsified Bituminous Sealing Compound. The first application shall be pre-mixed with fine, sharp sand, similar to mortar sand, as needed to fill all voids in the mix in the area being sealed. The second application may be applied without sand. The sealer shall be carried to the curb at the gutter line in sufficient quantity to leave a bead or fillet of material at the face of the curb. The area to be sealed shall be clean, dry and the surface shall be at ambient temperature.
- e. The furnishing and applying of the required quantity of sealer for the bridge shoulder areas shall be incidental to placing the hot mix asphalt pavement.
- f. The atmospheric temperature for all courses placed on bridge decks shall be 50°F or higher.

401.16 Compaction Immediately after the Hot Mix Asphalt Pavement has been spread, struck off, and any surface irregularities adjusted, the Contractor shall thoroughly and uniformly compact the HMA by rolling.

The Contractor shall roll the surface when the mixture is in the proper condition and when the rolling does not cause undue displacement, cracking, or shoving. The Contractor shall prevent adhesion of the HMA to the rollers or vibrating compactors without the use of fuel oil or other petroleum based release agents. Solvents designed to strip asphalt binders from aggregates will not be permitted as release agents on equipment, tools, or pavement surfaces.

The Contractor shall immediately correct any displacement occurring as a result of the reversing of the direction of a roller or from other causes to the satisfaction of the Department. Any operation other than placement of variable depth shim course that results in breakdown of the aggregate shall be discontinued. Any new pavement that shows obvious cracking, checking, or displacement shall be removed and replaced for the full lane width as directed by the Resident at no cost to the Department.

Along forms, curbs, headers, walls, and other places not accessible to the rollers, the Contractor shall thoroughly compact the HMA with mechanical vibrating compactors. The Contractor shall only use hand tamping in areas inaccessible to all other compaction equipment. On depressed areas, the Contractor may use a trench roller or cleated compression strips under a roller to transmit compression to the depressed area.

Any HMA that becomes unacceptable due to cooling, cracking, checking, segregation or deformation as a result of an interruption in mix delivery shall be removed and replaced, with material that meets contract specifications at no cost to the Department.

401.17 Joints The Contractor shall construct wearing course transverse and longitudinal joints in such a manner that minimum tolerances shown in Section 401.101 - Surface Tolerances are met when measured with a straightedge.

The paver shall maintain a uniform head of HMA during transverse and longitudinal joint construction.

The HMA shall be free of segregation and meet temperature requirements outlined in section 401.04. Transverse joints of the wearing course shall be straight and neatly trimmed. The Contractor may form a vertical face exposing the full depth of the course by inserting a header, by breaking the bond with the underlying course, or by cutting back with hand tools. The Department may allow feathered or "lap" joints on lower base courses or when matching existing base type pavements.

Longitudinal joints shall be generally straight to the line of travel, and constructed in a manner that best ensure joint integrity. Methods or activities that prove detrimental to the construction of straight, sound longitudinal joints will be discontinued.

The Contractor shall apply a coating of emulsified asphalt immediately before paving all joints to the vertical face and 3 in of the adjacent portion of any pavement being overlaid except those formed by pavers operating in echelon. The Contractor shall use an approved spray apparatus designed for covering a narrow surface. The Department may approve application by a brush for small surfaces, or in the event of a malfunction of the spray apparatus, but for a period of not more than one working day.

Where pavement under this contract joins an existing pavement, or when the Department directs, the Contractor shall cut the existing pavement along a smooth line, producing a neat, even, vertical joint. The Department will not permit broken or raveled edges. The cost of all work necessary for the preparation of joints is incidental to related contract pay items.

401.18 Quality Control Method A, B & C The Contractor shall operate in accordance with the approved Quality Control Plan (QCP) to assure a product meeting the contract requirements. The QCP shall meet the requirements of Section 106.6 - Acceptance and this Section. The Contractor shall not begin paving operations until the Department approves the QCP in writing.

Prior to placing any mix, the Department and the Contractor shall hold a Pre-paving conference to discuss the paving schedule, source of mix, type and amount of equipment to be used, sequence of paving pattern, rate of mix supply, random sampling, project lots and sublots and traffic control. A copy of the QC random numbers to be used on the project shall be provided to The Resident. The Departments' random numbers for Acceptance testing shall be generated and on file with the Resident and the Project Manager. All personnel of the Department and the Contractor who have significant information relevant to the paving items shall attend, including the responsible onsite paving supervisor for the Contractor. The Resident will prepare minutes of the conference and distribute them to all attendees. Any requests to revise the minutes must be made to the Resident within 7 Days of Receipt. These minutes will constitute the final record of the Pre-paving conference.

The QCP shall address any items that affect the quality of the Hot Mix Asphalt Pavement including, but not limited to, the following:

- a. JMF(s)
- b. Hot mix asphalt plant details
- c. Stockpile Management (to include provisions for a minimum 2 day stockpile)
- d. Make and type of paver(s)
- e. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers
- f. Name of QCP Administrator, and certification number
- g. Name of Process Control Technician(s) and certification number(s)
- h. Name of Quality Control Technicians(s) and certification number(s)
- i. Mixing & transportation including process for ensuring that truck bodies are clean and free of debris or contamination that could adversely affect the finished pavement
- j. Testing Plan
- k. Laydown operations including longitudinal joint construction, procedures for avoiding paving in inclement weather, type of release agent to be used on trucks tools and rollers, compaction of shoulders, tacking of all joints, methods to ensure that segregation is minimized, procedures to determine the maximum rolling and paving speeds based on best engineering practices as well as past experience in achieving the best possible smoothness of the pavement. Solvent based agents developed to strip asphalts from aggregates will not be allowed as release agents.
- l. Examples of Quality Control forms including a daily plant report, daily paving report, and delivery slip template for any plant to be utilized.
- m. Silo management and details (can show storage for use on project of up to 36 hours)
- n. Provisions for varying mix temperature due to extraordinary conditions or production limitations. If a warm-mix technology is utilized, a proposed target production temperature range (not to exceed 50°F) will be provided for each mix design.
- o. Name and responsibilities of the Responsible onsite Paving Supervisor.
- p. Method for calibration/verification of Density Gauge
- q. A note that all testing will be done in accordance with AASHTO and the MaineDOT Policies and Procedures for HMA Sampling and Testing.
- r. A detailed description of RAP processing, stockpiling and introduction into the plant as well as a note detailing conditions under which the percent of RAP will vary from that specified on the JMF.
- s. A detailed procedure outlining when production will be halted due to QC or Acceptance testing results.
- t. A plan to address the change in PGAB source or supplier and the potential co-mingling of differing PGAB's.
- u. A procedure to take immediate possession of acceptance samples once released by MaineDOT and deliver said samples to the designated acceptance laboratory.
- v. Provisions for how the QCP will be communicated to the Contractor's field personnel

The QCP shall include the following technicians together with following minimum requirements:

- a. QCP Administrator - A qualified individual shall administer the QCP. The QCP Administrator must be a full-time employee of or a consultant engaged by the Contractor or paving subcontractor. The QCP Administrator shall have full authority to institute any and all actions necessary for the successful operation of the QCP. The QCP Administrator (or its designee in the QCP Administrator's absence) shall be available to communicate with the Department at all times. The QCP Administrator shall be certified as a Quality Assurance Technologist certified by the New England Transportation Technician Certification Program (NETTCP).

b. Process Control Technician(s) (PCT) shall utilize test results and other quality control practices to assure the quality of aggregates and other mix components and control proportioning to meet the JMF(s). The PCT shall inspect all equipment used in mixing to assure it is operating properly and that mixing conforms to the mix design(s) and other Contract requirements, and that delivery slips and plant recordation accurately reflects the mix being produced with all the required information. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one PCT is required. The Plan shall include the criteria to be utilized by the PCT to correct or reject unsatisfactory materials. The PCT shall be certified as a Plant Technician by the NETTCP.

c. Quality Control Technician(s) (QCT) shall perform and utilize quality control tests at the job site to assure that delivered materials meet the requirements of the JMF(s). The QCT shall inspect all equipment utilized in transporting, laydown, and compacting to assure it is operating properly and that all laydown and compaction conform to the Contract requirements. The QCP shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one QCT is required. The QCP shall include the criteria utilized by the QCT to correct or reject unsatisfactory materials. The QCT shall be certified as a Paving Inspector by the NETTCP.

The QCP shall detail the coordination of the activities of the Plan Administrator, the PCT and the QCT. The Project Superintendent shall be named in the QCP, and the responsibilities for successful implementation of the QCP shall be outlined.

The Contractor shall sample, test, and evaluate Hot Mix Asphalt Pavement in accordance with the following minimum frequencies:

TABLE 2 : MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Temperature of mix	6 per day at street and plant	-
Temperature of mat	4 per day	-
%TMD (Surface)	1 per 125 ton (As noted in QC Plan)	ASTM D2950
%TMD (Base)	1 per 250 ton (As noted in QC Plan)	AASHTO T269
Fines / Effective Binder	1 per 500 ton	AASHTO T 312*
Gradation	1 per 500 ton	AASHTO T30
PGAB content	1 per 500 ton	AASHTO T164 or T308
Voids at N_{design}	1 per 500 ton	AASHTO T 312*
Voids in Mineral Aggregate at N_{design}	1 per 500 ton	AASHTO T 312*
Rice Specific Gravity	1 per 500 ton	AASHTO T209
Coarse Aggregate Angularity	1 per 5000 ton	ASTM D5821
Flat and Elongated Particles	1 Per 5000 ton	ASTM D4791
Fine Aggregate Angularity	1 Per 5000 ton	AASHTO T304

*Method A and B only

The Contractor may utilize innovative equipment or techniques not addressed by the Contract documents to produce or monitor the production of the mix, subject to approval by the Department.

The Contractor shall submit all Hot Mix Asphalt Pavement plant test reports, inspection reports and updated pay factors in writing, signed by the appropriate technician and present them to the Department by 1:00 P.M. on the next working day, except when otherwise noted in the QCP due to local restrictions. The Contractor shall also retain splits of the previous 5 QC tests, with QC results enclosed for random selection and testing by The Department during QA inspections of the HMA production facility. Test results of splits that do not meet the Dispute Resolution Variance Limits in Table 10 shall trigger an investigation by the MaineDOT Independent Assurance Unit, and may result in that lab losing NETTCP certification and the ability to request a dispute [Section 401.223 - Process for Dispute Resolution (Methods A , B and C only)].

The Contractor shall make density test results, including randomly sampled densities, available to the Department onsite. Summaries of each day's results, including a daily paving report, shall be recorded and signed by the QCT and presented to the Department by 1:00 p.m. the next working day.

The Contractor shall have a testing lab at the plant site, equipped with all testing equipment necessary to complete the tests in Table 2. The Contractor shall locate an approved Gyrotory Compactor at the plant testing lab or within 30 minutes of the plant site.

The Contractor shall fill all holes in the pavement resulting from cutting cores by the Contractor or the Department with a properly compacted, acceptable mixture no later than the following working day. Before filling, the Contractor shall carefully clean the holes and apply a coating of emulsified asphalt. On surface courses, cores shall not be cut except for Verification of the Nuclear Density Gauge, at a rate not to exceed 3 per day or 2 per 1000 Mg [1000 ton] placed.

The Contractor shall monitor plant production using running average of three control charts as specified in Section 106 - Quality. Control limits shall be as noted in Table 3 below. The UCL and LCL, shall not exceed the allowable gradation control points for the particular type of mixture as outlined in Table 1 of section 703.09

TABLE 3: Control Limits

Property	UCL and LCL
Passing 4.75 mm and larger sieves	Target +/-4.0
Passing 2.36 mm sieve	Target +/-2.5
Passing .075 mm sieve	Target +/-1.2
PGAB Content*	Target +/-0.3
Voids in the Mineral Aggregate	LCL = LSL + 0.2
% Voids at N_{design}	JMF Target +/-1.3

*Based on AASHTO T 308

The Contractor shall cease paving operations whenever one of the following occurs on a lot in progress:

- Method A: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.85.
- Method B: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.90.
- Method C: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, percent passing the nominal maximum sieve, percent passing 2.36 mm sieve, percent passing 0.300 mm sieve, percent passing 0.075 mm sieve or density using all Acceptance or all available Quality Control tests for the current lot is less than 0.85.

- d. The Coarse Aggregate Angularity or Fine Aggregate Angularity value falls below the requirements of Table 3: Aggregate Consensus Properties Criteria in Section 703.07 for the design traffic level.
- e. Each of the first 2 control tests for a Method A or B lot fall outside the upper or lower limits for VMA, Voids @ Nd, or Percent PGAB; or under Method C, each of the first 2 control tests for the lot fall outside the upper or lower limits for the nominal maximum, 2.36 mm, 0.300 mm or 0.075 mm sieves, or percent PGAB.
- f. The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
- g. There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
- h. The Contractor fails to follow the approved QCP.

The Contractor shall notify the Resident in writing as to the reason for shutdown, as well as the proposed corrective action, by the end of the work day. Failure to do so will be treated as a second incident under 106.4.6 QCP Non-compliance. The Department will consider corrective action acceptable if the pay factor for the failing property increases, based on samples already in transit, or a verification sample is tested and the property falls within the specification limits.

In cases where the corrective action can be accomplished immediately, such as batch weight or cold feed changes, the Contractor may elect to resume production once the corrective action is completed. Additional QC testing shall be performed to verify the effectiveness of the corrective action. Subsequent occurrences of shutdown for the same property in a Lot in progress will require paving operations to cease. Paving operations shall not resume until the Contractor and the Department determines that material meeting the Contract requirements will be produced. The Department may allow the Contractor to resume production based upon a passing QC sample, with a split of the sample being sent to the Department for verification testing. If the submitted verification sample test results fall outside the specification limits, the Contractor shall cease production until a verification sample is submitted to the Department has been tested by the Department and found to be within specification limits.

If the Contractor's control chart shows the process to be out of control (defined as a single point outside of the control limits on the running average of three chart) on any property listed in Table 3: Control Limits, the Contractor shall notify the Resident in writing of any proposed corrective action by 1:00 PM the next working day.

The Department retains the exclusive right, with the exception of the first day's production of a new JMF, to determine whether the resumption of production involves a significant change to the production process. If the Department so determines, then the current lot will be terminated, a pay factor established, and a new lot will begin.

401.19 Quality Control Method D For Items covered under Method D, the Contractor shall submit a modified QC Plan detailing, how the mix is to be placed, what equipment is to be used, and what HMA plant is to be used. All mix designs (JMF) shall be approved and verified by MaineDOT prior to use. Certified QC personnel shall not be required. The Contractor shall certify the mix and the test results for each item by a Certificate of Compliance.

401.20 Acceptance Method A, B & C These methods utilizes Quality Level Analysis and pay factor specifications. For Hot Mix Asphalt Pavement designated for acceptance under Quality Assurance provisions, the Department will sample once per subplot on a statistically random basis, test, and evaluate in accordance with the following Acceptance Criteria:

TABLE 4: ACCEPTANCE CRITERIA

PROPERTIES	POINT OF SAMPLING	TEST METHOD
Gradation	Paver Hopper	AASHTO T30
PGAB Content	Paver Hopper	AASHTO T308
%TMD (Surface)	Mat behind all Rollers	AASHTO T269
%TMD (Base or Binder)	Mat behind all Rollers	AASHTO T269
Air Voids at N_d	Paver Hopper	AASHTO T 312
%VMA at N_d	Paver Hopper	AASHTO T 312
Fines to Effective Binder	Paver Hopper	AASHTO T 312
%VFB	Paver Hopper	AASHTO T 312

In the event the Department terminates a Lot prematurely but fails to obtain the required number of acceptance samples to calculate the volumetric property pay factor under the test method specified in the contract, the pay factor shall be calculated using the number of samples actually obtained from the contract. Should the number of acceptance samples taken total less than three, the resulting pay factor shall be 1.0 for volumetric properties. A minimum of three cores will be used for a density pay factor using the contract's specified Acceptance method, if applicable, for quantities placed to date.

Should the Contractor request a termination of the Lot in progress prior to three acceptance samples being obtained, and the Department agrees to terminate the Lot, then the pay factor for mixture properties shall be 0.80. A minimum of three cores will be used to determine a density pay factor using the contract's specified Acceptance method, if applicable, for quantities placed to date.

Lot Size For purposes of evaluating all acceptance test properties, a lot shall consist of the total quantity represented by each item listed under the lot size heading.

Sublot size - Refer to section 401.201, 401.202, and 401.203 for minimum size and number of sublots. The quantity represented by each sample will constitute a sublot.

If there is less than one-half of a sublot remaining at the end, then it shall be combined with the previous sublot. If there is more than one-half sublot remaining at the end, then it shall constitute the last sublot and shall be represented by test results. If it becomes apparent partway through a Lot that, due to an underrun, there will be insufficient mix quantity to obtain the minimum number of sublots needed, the Resident may adjust the size of the remaining sublots and select new sample locations based on the estimated quantity of material remaining in the Lot.

Acceptance Testing The Department will obtain samples of Hot Mix Asphalt Pavement in conformance with AASHTO T168 Sampling Bituminous Paving Mixtures, and the MaineDOT Policies and Procedures for HMA Sampling and Testing, which will then be transported by the Contractor to the designated MaineDOT Laboratory within 48 hours (except when otherwise noted in the project specific QCP due to local restrictions), as directed by MaineDOT in approved transport containers to be provided by the Department, unless otherwise directed by the Resident. Failure to deliver an acceptance sample to the designated acceptance laboratory will be considered the second incident under 106.4.6-QCP Non-Compliance.

The Department will take the sample randomly within each subplot. Target values shall be as specified in the JMF. The Department will use Table 5 for calculating pay factors for gradation, PGAB Content, Air Voids at N_{design} , VMA, Fines to Effective Binder and VFB. The Department will withhold reporting of the test results for the Acceptance sample until 7:00 AM, on the second working day of receipt of the sample, or after receipt of the Contractors results of the Acceptance sample split. Upon conclusion of each lot, where there is a minimum of four sublots, results shall be examined for statistical outliers, as stated in Section 106.7.2 - Statistical Outliers.

Isolated Areas During the course of inspection, should it appear that there is an isolated area that is not representative of the lot based on a lack of observed compactive effort, excessive segregation, a change in process or any other questionable practice, that area may be isolated and tested separately. An area so isolated that has a calculated pay factor below 0.80 for Method A and C or below 0.86 for Method B, based on three random tests shall be removed and replaced at the expense of the Contractor for the full lane width and a length not to be less than 150 ft.

Pavement Density The Department will measure pavement density using core samples tested according to AASHTO T-166. The Department will randomly determine core locations. The Contractor shall cut 6 inch diameter cores at no additional cost to the Department by the end of the working day following the day the pavement is placed, and immediately give them to the Department. Cores for Acceptance testing shall be cut such that the nearest edge is never within 9 inches of any joint. The cores will be placed in a transport container provided by the Department and transported by the Contractor to the designated MaineDOT Lab as directed by the Department. Pre-testing of the cores will not be allowed. At the time of sampling, the Contractor and the Department shall mutually determine if a core is damaged. If it is determined that the core(s) is damaged, the Contractor shall cut new core(s) at the same offset and within 3 ft of the initial sample. At the time the core is cut, the Contractor and the Department will mutually determine if saw cutting of the core is needed, and will mark the core at the point where sawing is needed. The core may be saw cut by the Contractor in the Department's presence onsite, or in an MaineDOT Lab by The Department, without disturbing the layer being tested to remove lower layers of Hot Mix Asphalt Pavement, gravel, or RAP. No recuts are allowed at a test location after the core has been tested. Upon conclusion of each lot, density results shall be examined for statistical outliers as stated in Section 106.7.2.

On all sections of overlay with wearing courses designed to be 3/4 in or less in thickness, there shall be no pay adjustment for density otherwise noted in Section 403 - Hot Mix Asphalt Pavement. For overlays designed to be 3/4 in or less in thickness, density shall be obtained by the same rolling train and methods as used on mainline travelway surface courses with a pay adjustments for density, unless otherwise directed by the Department.

There shall be no pay adjustment for density on shoulders unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement. Density for shoulders shall be obtained by the same rolling train and methods as used on mainline travelway, unless otherwise directed by the Department. Efforts to obtain optimum compaction will not be waived by the Department unless it is apparent during construction that local conditions make densification to this point detrimental to the finished pavement surface course.

401.201 Method A Lot Size will be the entire production per JMF for the project, or if so agreed at the Pre-paving Conference, equal lots of up to 4500 tons, with unanticipated over-runs of up to 1500 ton rolled into the last lot. Sublot sizes shall be 750 ton for mixture properties, 500 ton for base or binder densities and 250 ton for surface densities. The minimum number of sublots for mixture properties shall be 4, and the minimum number of sublots for density shall be five.

TABLE 5: METHOD A ACCEPTANCE LIMITS

Property	USL and LSL
Percent Passing 4.75 mm and larger sieves	Target +/-7%
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/-4%
Percent Passing 0.60 mm	Target +/-3%
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/-2%
PGAB Content	Target +/-0.4%
Air Voids	4.0% +/-1.5%
Fines to Effective Binder	0.9 +/-0.3
Voids in the Mineral Aggregate	LSL Only from Table 1
Voids Filled with Binder	Table 1 values plus a 4% production tolerance for USL only
% TMD (In-place Density)	95.0% +/- 2.5%

401.202 Method B Lot Size will be the entire production per JMF for the project and shall be divided into 3 equal sublots for Mixture Properties and 3 equal sublots for density.

TABLE 6: METHOD B ACCEPTANCE LIMITS

Property	USL and LSL
Percent Passing 4.75 mm and larger sieves	Target +/-7
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/-5
Percent Passing 0.60 mm	Target +/-4
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/-3
PGAB Content	Target +/-0.5
Air Voids	4.0% +/-2.0
Fines to Effective Binder	0.9 +/-0.3
Voids in the Mineral Aggregate	LSL from Table 1
Voids Filled with Binder	Table1 plus a 4% production tolerance for USL.
% TMD (In-place Density)	95.0% +/- 2.5%

401.203 Method C Lot Size will be the entire production per JMF for the project, or if so agreed at the Pre-paving Conference, equal lots of up to 4500 tons, with unanticipated over-runs of up to 1500 ton rolled into the last lot. Sublot sizes shall be 750 ton for mixture properties, 500 ton for base or binder densities and 250 ton for surface densities. The minimum number of sublots for mixture properties shall be 4, and the minimum number of sublots for density shall be five.

TABLE 7: METHOD C ACCEPTANCE LIMITS

Property	USL and LSL
Passing 4.75 mm and larger sieves	Target +/-7%
Passing 2.36 mm to 1.18 mm sieves	Target +/-5%
Passing 0.60 mm	Target +/-4%
Passing 0.30 mm to 0.075 mm sieve	Target +/-2%
PGAB Content	Target +/-0.4%
Air Voids	4.0% +/-1.5%
Fines to Effective Binder	0.9 +/-0.3
Voids in the Mineral Aggregate	LSL Only from Table 1
Voids Filled with Binder	Table 1 values plus a 4% production tolerance for USL only
% TMD (In place density)	95.0% +/- 2.5%

401.204 Method D For hot mix asphalt items designated as Method D in Section 403 - Hot Mix Asphalt Pavement, one sample will be taken from the paver hopper or the truck body per 250 ton per pay item. The mix will be tested for gradation and PGAB content. Disputes will not be allowed. If the mix is within the tolerances listed in Table 8: Method D Acceptance Limits, the Department will pay the contract unit price. Contractor shall cut two 6 in cores, which shall be tested for percent TMD per AASHTO T-269 unless otherwise noted in Section 403 - Hot Mix Asphalt Pavement. If the average for the two tests falls below 92.5% the disincentive shall apply. If the test results for each 250 ton increment are outside these limits, the following deductions (Table 8B) shall apply to the HMA quantity represented by the test.

TABLE 8: METHOD D ACCEPTANCE LIMITS

Property	USL and LSL
Percent Passing 4.75 mm and larger sieves	Target +/-7
Percent Passing 2.36 mm to 1.18 mm sieves	Target +/-5
Percent Passing 0.60 mm	Target +/-4
Percent Passing 0.30 mm to 0.075 mm sieve	Target +/-3
PGAB Content	Target +/-0.5
% TMD (In-place Density)	95.0% +/- 2.5%

TABLE 8B Method "D" Price Adjustments

PGAB Content	-5%
2.36 mm sieve	-2%
0.30 mm sieve	-1%
0.075 mm sieve	-2%
Density	-10%

401.21 Method of Measurement The Department will measure Hot Mix Asphalt Pavement by the ton in accordance with Section 108.1 - Measurement of Quantities for Payment.

401.22 Basis of Payment The Department will pay for the work, in place and accepted, in accordance with the applicable sections of this Section, for each type of HMA specified.

The Department will pay for the work specified in Section 401.11, for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying bituminous material to joints and contact surfaces is incidental.-Payment for this work under the appropriate pay items shall be full compensation for all labor, equipment, materials, and incidentals necessary to meet all related contract requirements, including design

of the JMF, implementation of the QCP, obtaining core samples, transporting cores and samples, filling core holes, applying emulsified asphalt to joints, and providing testing facilities and equipment. The Department will make a pay adjustment for quality as specified below.

401.221 Pay Adjustment The Department will sample, test, and evaluate Hot Mix Asphalt Pavement in accordance with Section 106 - Quality and Section 401.20 - Acceptance, of this Specification.

In addition, for 9.5 mm NMAS mixtures the following pay adjustment shall also apply:

The average percent passing for the 0.075 mm sieve shall be evaluated for each Lot. If the average is greater than 6.5%, a pay adjustment according to Table 8C below shall apply in addition to the other pay adjustments for the given method of testing.

TABLE 8C: 0.075 mm SIEVE PAY ADJUSTMENT

AVERAGE PERCENT PASSING 0.075 MM SIEVE	PAY ADJUSTMENT
6.6% - 7.0%	-5% Pay Adjustment
> 7.0%	-10% Pay Adjustment

The Department shall notify the Contractor whenever the average of at least three samples in a given Lot is greater than 6.5%.

401.222 Pay Factor (PF) The Department will use the following criteria for pay adjustment using the pay adjustment factors under Section 106.7 - Quality Level Analysis:

Density If the pay factor for Density falls below 0.80 for Method A or C or 0.86 for Method B, all of the cores will be randomly re-cut by Sublot. A new pay factor will be calculated that combines all initial and retest results. If the resulting pay factor is below 0.80 for Method A or C or below 0.86 for Method B, the entire Lot shall be removed and replaced with material meeting the specifications at no additional cost to the Department, except that the Department may, when it appears that there is a distinct pattern of defective material, isolate any defective material by investigating each mix sample subplot and require removal of defective mix sample sublots only, leaving any acceptable material in place if it is found to be free of defective material. Pay factors equal to or greater than the reject level will be paid accordingly.

Gradation For HMA evaluated under Acceptance Method A or B, the Department will determine a composite pay factor (CPF) using applicable price adjustment factors “f” from Table 9: Table of Gradation Composite “f” Factors, and Acceptance limits from Table 5: Method A Acceptance Limits, for Method A or Table 6: Method B Acceptance Limits, for Method B. The Department will not make price adjustments for gradation on Methods A and B except for 9.5mm NMAS mixtures as outlined in Table 4A. Gradations for Methods A and B shall be monitored as shutdown criteria.

TABLE 9: TABLE OF GRADATION COMPOSITE " f " FACTORS (Methods A and B)

Constituent		"f" Factor			
		19 mm	12.5 mm	9.5 mm	4.75 mm
Gradation	25 mm	-	-	-	-
	19 mm	4	-	-	-
	12.5 mm		4	4	-
	9.50 mm				4
	2.36 mm	6	6	6	8
	1.18 mm				
	0.60 mm	2	2	2	2
	0.30 mm	2	2	2	2
	0.075 mm	6	6	6	8

For HMA evaluated under Acceptance Method C, the Department will determine a pay factor using acceptance limits from Table 7: Method C Acceptance Limits.

VMA, Air Voids, VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using the applicable Acceptance Limits.

The following variables will be used for pay adjustment:

- PA = Pay Adjustment
- Q = Quantity represented by PF in ton
- P = Contract price per ton
- PF = Pay Factor

Pay Adjustment Method A

The Department will use the following criteria for pay adjustment: density, Performance Graded Asphalt Binder content, voids @N_d, VMA, VFB, F/B_{eff}, and the screen sizes listed in Table 9 for the type of HMA represented in the JMF. If any single pay factor for PGAB Content, VMA, or Air Voids falls below 0.80, then the composite pay factor for PGAB Content, VMA, and Air Voids shall be 0.55.

Density: For mixes having a density requirement, the Department will determine a pay factor using Table 5: Method A Acceptance Limits:

$$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$$

PGAB Content, VMA and Air Voids: The Department will determine a pay adjustment using Table 5: Method A Acceptance Limits as follows:

$$PA = (\text{voids @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{VMA @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{PGAB PF} - 1.0)(Q)(P) \times 0.10$$

VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using Table 5: Method A Acceptance Limits. The Department will not make price adjustments for VFB or Fines to Effective Binder, but will monitor them as shutdown criteria.

Pay Adjustment Method B

The Department will use the following criteria for pay adjustment: density, Performance Graded Asphalt Binder content, voids @N_d, VMA, VFB, F/B_{eff}, and the screen sizes listed in Table 9 for the type of HMA represented in the JMF. If any single pay factor for PGAB Content, VMA, or Air Voids falls below 0.86, then the composite pay factor for PGAB Content, VMA, and Air Voids shall be 0.70.

Density: For mixes having a density requirement, the Department will determine a pay factor using Table 6: Method B Acceptance Limits:

$$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$$

PGAB Content, VMA and Air Voids: The Department will determine a pay adjustment using Table 6: Method B Acceptance Limits as follows:

$$PA = (\text{voids @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{VMA @ } N_d \text{ PF} - 1.0)(Q)(P) \times 0.20 + (\text{PGAB PF} - 1.0)(Q)(P) \times 0.10$$

VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using Table 6: Method B Acceptance Limits. The Department will not make price adjustments for VFB or Fines to Effective Binder, but will monitor them as shutdown criteria.

Pay Adjustment Method C

The Department will use density, Performance Graded Asphalt Binder content, and the percent passing the nominal maximum, 2.36 mm, 0.300 mm and 0.075 mm sieves for the type of HMA represented in the JMF. If the PGAB content falls below 0.80, then the PGAB pay factor shall be 0.55.

Density: For mixes having a density requirement, the Department will determine a pay factor using Table 7: Method C Acceptance Limits:

$$PA = (\text{density PF} - 1.0)(Q)(P) \times 0.50$$

PGAB Content and Gradation The Department will determine a pay factor using Table 7: Method C Acceptance Limits. The Department will calculate the price adjustment for Mixture Properties as follows:

$$PA = (\% \text{ Passing Nom. Max PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 2.36 mm PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 0.30 mm PF} - 1.0)(Q)(P) \times 0.05 + (\% \text{ passing 0.075 mm PF} - 1.0)(Q)(P) \times 0.10 + (\text{PGAB PF} - 1.0)(Q)(P) \times 0.25$$

VMA, Air Voids, VFB and Fines to Effective Binder The Department will determine a pay factor (PF) using Table 7: Method C Acceptance Limits. The Department will not make price adjustments for VMA, Air Voids, VFB or Fines to Effective Binder, but will monitor them as shutdown criteria.

Pay Adjustment Method D

The Department will use density, Performance Graded Asphalt Binder content, and the screen sizes listed in Table 8b for the type of HMA represented in the JMF. If test results do not meet the Table 8 requirements, deducts as shown in Table 8b shall be applied to the quantity of mix represented by the test.

401.223 Process for Dispute Resolution (Methods A B & C only)

a. Dispute Resolution sampling At the time of Hot-Mix Asphalt sampling, the Department will obtain a split sample of each Acceptance test random sample for possible dispute resolution testing. The Contractor shall also obtain a split sample of the HMA at this same time. If the Contractor wishes to retain the option of requesting dispute testing of the initial Acceptance sample, the Contractor will test their split of the

Acceptance sample and shall report their results to the Resident, with a copy to the QA Engineer by 7:00 AM, on the second working day from time of QA sampling, otherwise dispute resolution will not be initiated. The Department's dispute resolution split sample will be properly labeled and stored for a period of at least two weeks, or until the sample is tested.

b. Disputing Acceptance results The Contractor may dispute the Department's Acceptance results and request (Methods A, B, & C) that the dispute resolution split sample be tested by notifying the Department's Resident and the QA Engineer in writing within two working days after receiving the results of the Acceptance test. The following shall be provided in the request:

- Acceptance sample reference number
- The specific test result(s) or property(ies) being disputed, and
- The complete, signed report of the Contractor's testing (In a lab certified by the NETTCP and MaineDOT) of their split of the Acceptance sample indicating that the variances in Table 10: Dispute Resolution Variance Limits, for the specific test result(s) or property(ies) were exceeded.

c. Disputable items

For Methods A and B: The Contractor may dispute any or all of the following test results when the difference between the Department's value and the Contractor's value for that test equals or exceeds the corresponding allowable variation in Table 10: Dispute Resolution Variance Limits, PGAB content, G_{mb} , and G_{mm} . In addition, if the allowable variation for the G_{mb} or G_{mm} is not met or exceeded, the Contractor may dispute either or both of the following material properties provided the difference between results for them equals or exceeds the corresponding allowable variation in Table 10: Voids at N_{design} , and VMA. The Contractor may dispute the 0.075 mm sieve test result when a 9.5 mm NMAS mixture is used.

For Method C only: The results for PGAB content and the screen sizes used for pay adjustment may be disputed.

d. Outcome The value of any disputed result or property reported for the initial Acceptance sample shall stand if the value reported for the dispute resolution sample is not closer to the value the Contractor reported for their split sample than to the value reported for the initial Acceptance sample. If the value reported for the dispute resolution falls precisely half-way between the other two values the value reported for the dispute resolution will replace the original acceptance value. Otherwise, the value reported for the dispute resolution sample will replace the value reported for the initial Acceptance sample, and will be used to re-calculate any other affected results or properties.

TABLE 10: DISPUTE RESOLUTION VARIANCE LIMITS

PGAB Content	+/-0.4%
G _{mb}	+/-0.030
G _{mm}	+/-0.020
Voids @ N _d	+/-0.8%
VMA	+/-0.8%
Passing 4.75 mm and larger sieves	+/- 4.0%
Passing 2.36 mm to 0.60 mm sieves	+/- 3.0%
Passing 0.30 mm to 0.15	+/- 2.0 %
0.075 mm sieve	+/- 1.0%

SECTION 402 - PAVEMENT SMOOTHNESS

402.00 Smoothness Projects Projects to have their pavement smoothness analyzed in accordance with this Specification will be so noted in Special Provision 403 - Hot Mix Asphalt Pavement

402.01 Pavement Smoothness The final pavement surface shall be evaluated for smoothness using a Class I or Class II profiler as defined by ASTM E950 (94). Smoothness measurements will be expressed in terms of the International Roughness Index (IRI) as defined by the World Bank, in units of inches/mile.

402.02 Lot Size Lot size for smoothness will be 3000 lane-feet. A subplot will consist of 20 50 lane-feet. Partial lots will be included in the previous lot if less than one-half the size of a normal lot. If equal to or greater than one-half the normal lot size, it will be tested as a separate lot.

402.03 Acceptance Testing The Department will conduct Acceptance testing following completion of the surface course. Sections to be excluded from testing include the following:

- Bridge decks and joints (no smoothness measurements will be taken within 100 ft of bridge joints)
- Acceleration and deceleration lanes
- Shoulders and ramps
- Side streets and roads
- Within 100 ft of transverse joints at the beginning and end of the project
- Within 100 ft of railroad crossings
- Urban areas with speed limits of 30 mph or lower

Each lot shall have 2 measurements made in each wheel path. The average of the 4 measurements will determine the smoothness for that lot.

The smoothness measurements will be statistically evaluated for pay factors as described in Subsection 106.7 - Quality Level Analysis, using the specification limits shown below.

ACCEPTANCE LIMITS

Level	USL
I	60 in/mile
II	70 in/mile
III	80 in/mile

Computation of Smoothness Pay Adjustment:

$$PA = (PF-1.0)(Q)(P)$$

where:

Q = Quantity of surface course in the Lot (excluding shoulders, side streets, bridge decks, ramps, acceleration and deceleration lanes)

PF = smoothness pay factor for the Lot

P = Contract unit price for surface pavement

PA = pay adjustment

402.04 Unacceptable Work In the event that any Lot is found to have a pay factor less than 0.80, the Contractor shall take whatever remedial action is required to correct the pavement surface in that Lot at no additional expense to the Department. Such remedial action may include but is not limited to removal and replacement of the unacceptable pavement. In the event remedial action is necessary, the Contractor shall submit a written plan to the Resident outlining the scope of the remedial work. The Resident must approve this plan before the remedial work can begin. Following remedial work, the Lot shall be retested, and will be subject to the specification limits listed above. The resulting pay factor, if within the acceptable range, will be used in the final pay adjustment. The Contractor shall pay the cost of retesting the pavement following corrective action. Localized surface tolerance defects will be subject to the provisions outlined in Section 401.101 Surface Tolerances.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
402.10 Incentive/Disincentive - Pavement Smoothness	Lump Sum

SECTION 403 - HOT MIX ASPHALT PAVEMENT

403.01 Description This work shall consist of constructing one or more courses of Hot Mix Asphalt pavement on an approved base in accordance with these specifications, and in reasonably close conformity with the lines, grades, thickness and typical cross sections shown on the plans or established.

The HMA pavement shall be composed of a mixture of aggregate, filler if required, and asphalt material.

403.02 General The materials and their use shall conform to the requirements of Section 401 - Hot Mix Asphalt Pavement.

403.03 Construction The construction requirements shall be as specified in Section 401 - Hot Mix Asphalt Pavement.

403.04 Method of Measurement Hot mix asphalt pavement will be measured as specified in Section 401.21-Method of Measurement.

403.05 Basis of Payment The accepted quantities of hot mix asphalt pavement will be paid for at the contract unit price per ton for the mixtures, including hot mix asphalt material complete in place.

Method A, Method B, Method C and Method D shall be used for acceptance as specified in Section 401 - Hot Mix Asphalt Pavements. (See Complementary Notes, Section 403 - Hot Mix Asphalt Pavement, for Method location).

Payment will be made under:

	<u>Pay Item</u>	<u>Pay Unit</u>
403.102	Hot Mix Asphalt Pavement for Special Areas	Ton
403.206	Hot Mix Asphalt, 25 mm Nominal Maximum Size	Ton
403.207	Hot Mix Asphalt, 19.0 mm Nominal Maximum Size	Ton
403.2071	Hot Mix Asphalt , 19.0 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2072	Asphalt Rich Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Asphalt Rich Base and Intermediate course)	Ton
403.2073	Warm Mix Asphalt, 19.0 mm Nominal Maximum Size	Ton
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	Ton
403.2081	Hot Mix Asphalt - 12.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.20813	Warm Mix Asphalt - 12.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2083	Warm Mix Asphalt, 12.5 mm Nominal Maximum Size	Ton
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	Ton
403.210	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	Ton
403.2101	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Polymer Modified)	Ton
403.2102	Asphalt Rich Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Asphalt Rich Intermediate course)	Ton
403.2103	Warm Mix Asphalt, 9.5 mm Nominal Maximum Size	Ton
403.2104	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Thin Lift Surface Treatment)	Ton
403.211	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)	Ton
403.2111	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming, Polymer Modified)	Ton
403.2113	Warm Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)	Ton
403.212	Hot Mix Asphalt, 4.75 mm Nominal Maximum Size	Ton
403.2123	Warm Mix Asphalt, 4.75 mm Nominal Maximum Size	Ton
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.2131	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course, Polymer Modified)	Ton
403.2132	Asphalt Rich Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.2133	Warm Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course)	Ton
403.214	Hot Mix Asphalt, 4.75 mm Nominal Maximum Size (5/8" Surface Treatment)	Ton
403.2143	Warm Mix Asphalt, 4.75 mm Nominal Maximum Size (5/8" Surface Treatment)	Ton

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

Desc. Of Course	Grad Design.	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
<u>6" HMA Overlay Areas</u>						
<u>Full Reconstruction Areas</u>						
Wearing	12.5 mm	403.208	N/A	6"	3/more	2,4,10,17

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.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations**.
10. Section 106.6 Acceptance, (2) Method D.
17. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a **10 ton** vibratory, **12 ton** pneumatic, and a **10 ton** finish roller for roadway work. A daily paving report, summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and number of roller passes, shall be recorded and signed by the QCT and presented to the Department's representative by the end of the working day. An approved release agent is required to ensure the mixture does not adhere to hand tools, rollers, pavers, and truck bodies. The use of petroleum based fuel oils, or asphalt stripping solvents will not be permitted.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.025 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 the surface course, at a rate not to exceed 0.025 gal/yd². Tack used between layers of pavement will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.

SPECIAL PROVISION
SECTION 504
CONCRETE PIPE TIES

Description This work shall consist of furnishing and installing concrete pipe ties in conformance with the Standard Details.

Materials All materials shall meet the requirements shown in the Standard Details.

Method of Measurement Concrete pipe ties shall be measured per Group (2 ties per Group).

Basis of Payment The accepted quantity of concrete pipe ties will be paid for at the contract unit price per Group. Such payment will be full compensation for furnishing, installing, and all other necessary incidentals for satisfactory completion of the work. Any grout or mortar necessary to repair chipping shall be incidental to the installation of the pipe ties.

<u>Pay Item</u>	<u>Pay Unit</u>
504.07 Concrete Pipe Ties	Group

SECTION 603 - PIPE CULVERTS AND STORM DRAINS

603.01 Description This work shall consist of constructing or reconstructing pipe culverts and storm drains, in accordance with these specifications, the Standard Detail plans and in reasonably close conformity with the lines and grades shown on the plans or established.

The word "pipe" in these specifications shall include both round pipe and pipe arches..

603.02 Materials Meet Sections:

Joint Mortar	705.02
Flexible Gaskets	705.03
Flexible Culvert Polyvinylchloride (PVC) Pipe	706.08
Corrugated Steel, Metallic Coated Pipe	707.02
Corrugated Aluminum Alloy Pipe & Pipe Arches	707.06
Polymer Precoated, Galvanized Corrugated Steel	707.07
Pipe & Pipe Arches	
Aluminum Coated (Type 2) Corrugated Steel Pipe	707.10
Zinc-Coated (Galvanized) Corrugated Steel Pipe	707.11
Rigid Culvert	
Reinforced Concrete Pipe	706.02
Corrugated Polyethylene Pipe	706.06
Corrugated Polypropylene Pipe	706.10

Flexible culverts with a diameter of 48 inches or more shall have the ends cut to a partial bevel as called for on the plans. The cut ends of galvanized steel pipe shall be regalvanized or painted with a zinc aluminum paint conforming to Federal Specification TT-P-1561A or an approved equal.

Helical corrugated pipe shall be re-rolled to form angular corrugations on the ends.

The corrugated bands for connecting pipe with $2\frac{2}{3}$ inches by $\frac{1}{2}$ inch corrugations shall be not less than $10\frac{1}{2}$ inches wide.

Rigid culverts, designated to have the ends shaped to a partial bevel, shall be either cast or cut to the required shape and dimensions. In either case, the edges of the pipe shall be even and true with no exposed reinforcing.

603.03 Construction Requirements

603.031 General Culvert pipe and pipe arches shall be furnished under the following options unless otherwise specified.

Option I The Contractor shall furnish any of the following type of pipe under Option I:

- Corrugated Steel, Metallic (zinc or aluminum) Coated Pipe
- Reinforced Concrete Pipe
- Corrugated Polyethylene Pipe
- Corrugated Polypropylene Pipe
- Any of the metal pipes allowed under Option III.

Option III The Contractor shall furnish any of the following types of pipe under Option III. (Corrugated pipe used under this option shall be adequate to equal the flow capacity of comparable smoothlined pipe):

- Corrugated Aluminum Alloy Pipe
- Polyvinylchloride (PVC) Pipe
- Polymer-Precoated Galvanized Corrugated Steel Pipe
- Reinforced Concrete Pipe
- Corrugated Polyethylene Pipe
- Corrugated Polypropylene Pipe

Within any single run of culvert pipe, including extensions of existing culverts, the type of pipe shall be the same unless otherwise specified or as directed by the Resident. In a closed drainage system, a run of culvert pipe shall be considered from catch basin to catch basin. In an open drainage system, a run of culvert shall be considered from inlet to outlet.

Option III polyvinylchloride (PVC) pipe shall only be used in closed drainage systems, between catch basins.

603.0311 Corrugated Polyethylene or Polypropylene Pipe for Option III If inspection by the Resident reveals an unsatisfactory installation, the Resident may direct the contractor to test installed Smooth Lined Corrugated Polyethylene or Polypropylene Pipe for Option III to ensure the vertical deflection does not exceed the maximum allowable deflection. Maximum allowable deflection shall be 5 percent of the sum of the nominal inside diameter minus a 1.5 percent undersize tolerance.

Deflection tests shall not be performed until at least 30 days after completion of installation and compaction of backfill. The pipe shall be cleaned and inspected for offsets and obstructions before testing.

For all pipes 24 inches and smaller, a mandrel shall be pulled through the pipe by hand to ensure the maximum allowable deflections have not been exceeded. The mandrel shall be certified by the Department prior to use. If the mandrel fails to pass through the pipe, the pipe will be deemed overdeflected.

For pipes greater than 24 inches, deflections shall be determined by a method submitted and approved by the Department. If a mandrel is selected, the minimum diameter and length and

other requirements shall conform to the dimensions and requirements stated below. If other methods are used the measurements shall meet the minimum mandrel diameter requirements.

Any overdeflected pipe shall be uncovered and if not damaged as determined by the Department shall be allowed for reinstallation. Damaged pipe shall not be reinstalled and shall be removed from the work site.

The mandrel shall be a rigid non-adjustable, odd numbered-leg (9 legs minimum) mandrel having an effective length not less than its nominal diameter and having a minimum diameter at any point along the full length as follows:

Nominal Size inches	Minimum Mandrel Diameter inches		
12	11.23		
15	14.04		
18	16.84		
24	22.46		
30	28.07		
36	33.69		
42	39.30		
48	44.92		
60	56.15		

When deflection testing reveals overdeflected pipe, all costs incurred by the Contractor including mandrel and deflection testing, reinstallation of pipe and delays shall be the responsibility of the Contractor. When deflection testing reveals satisfactory pipe, all costs for deflection testing will be paid for by the Department.

603.032 Excavation Trenches shall be excavated in accordance with the requirements of Section 206 - Structural Excavation and wide enough to allow joining the culvert and compacting the bedding and backfill material under and around the culvert. Unless otherwise designated, trench walls shall be as nearly vertical as possible and the trench width no greater than necessary for installation of the culvert.

603.04 Bedding Culverts, less than 42 inches in diameter, shall be bedded on a firm foundation of uniform density. After placing the culvert pipe, backfill material shall be placed along the bottom of the trench, thoroughly tamped against the lower portion of the pipe with special care taken not to move the bedded pipe.

For culverts 42 inches in diameter and larger, the bottom of the trench shall be compacted to uniform density and shaped to fit a template with reasonable closeness for at least 10 percent of the culvert's total height.

On all bedding, when bell and spigot pipe is used, the portion of trench at the joints shall be shaped to fit the bell.

603.05 Laying Culvert The Contractor shall not install nor backfill culverts between December 15th and April 1st without written permission. Installing shall begin at the downstream end of the culvert line. Bell or groove ends of rigid culverts shall be placed facing upstream.

Elliptically shaped culverts shall be placed with the major axis within 5 degrees of vertical. Elliptically reinforced concrete pipe shall be placed with the vertical axis, indicated by the manufacturer, within 5 degrees of vertical.

603.06 Joining Culverts The method of joining rigid culvert sections shall be such that the ends are fully entered and the inner surfaces are reasonably flush and even. Joints shall be made with portland cement mortar, portland cement grout, rubber ring gaskets, or flexible plastic gaskets.

The pipe ends shall be thoroughly cleaned before the joint is made. Mortared joints shall be made with an excess of mortar to form a bead around the outside of the culvert and finished smooth inside. For grouted joints, molds or runners shall be used to retain the poured grout.

Joints with rubber ring gasket or flexible plastic gasket shall be made in accordance with the manufacturer's recommended procedures.

When portland cement mixtures are used, the completed joints shall be covered to protect against drying.

Flexible culvert section and metal end sections shall be firmly jointed by coupling bands. These bands shall meet the same applicable requirements as the flexible culvert being jointed.

603.07 Shop Strutting All flexible circular culvert pipe 48 inches in diameter and larger shall be elongated along the vertical diameter in accordance with one of the following two methods:

- a) The pipe shall be elongated by the manufacturer after fabrication by increasing the diameter along the vertical axis approximately 3 percent with a corresponding decrease along the horizontal axis. The elongation shall be obtained by installing rods and tightening the rods, uniformly from end to end of the pipe, obtaining approximately one quarter of the required elongation each time throughout the length of the pipe.

The rods shall be $\frac{5}{8}$ inch diameter threaded 7 inches at both ends with washers and nuts. The length of the rods shall be the diameter of the pipe plus 8 inches. The rods shall be

placed on the horizontal axis of the pipe at 2 foot spacing and located halfway between the circumferential riveting. A block of soft wood 2 inches by 4 inches by 12 inches long, shall be placed over the rods at each end to provide contact against the outside of the pipe. The long dimension of the blocks shall be parallel with the horizontal axis of the pipe. The rods shall be left in the pipe until the fill is completed and compacted, unless for some unusual condition their removal is ordered. The rods shall be removed by cutting from the inside adjacent to the pipe.

(b) The pipe shall be elongated by the manufacturer by increasing the diameter along the vertical axis approximately 5 percent with a corresponding decrease along the horizontal axis by applying sufficient pressure to the sides of the pipe after fabrication to produce the specified distortion. The elongation shall be maintained by drilling holes in the ends of the pipe sections and placing and tightening horizontal wires. After the pipe sections have been installed with coupling bands, the wires shall be removed.

Helically corrugated culvert sections shall be match marked before being elongated by the manufacturer or before the $\frac{5}{8}$ inch diameter rods are installed.

603.08 Backfilling Culverts and Storm Drains After the pipe is installed, it will be inspected before any backfill material is placed. All pipe found to be out of alignment, unduly settled or damaged to the extent that full performance is impaired, shall be taken up and re-laid or replaced.

Trenches shall be backfilled in accordance with Section 206.03 and as follows. The backfill material shall be thoroughly rammed under the haunches of the pipe with power or pneumatic operated hand tampers. The remainder of the backfill shall be thoroughly compacted with power tampers or vibratory compactors or other approved equipment or combination of equipment.

When the top of the pipe is exposed above the top of the trench, the embankment material around the pipe shall be placed and compacted on each side of the pipe in the aforementioned manner described for backfilling trenches, for a width of 5 feet measured from the outside diameter of the pipe. Only that portion of the embankment on each side and top of the pipe, for a minimum distance of 15 inches measured from the outside diameter of the pipe, must be of material conforming to the requirements described for backfilling in Section 206.03. Backfill material beyond these limits may contain stones larger than 3 inches but no greater than the thickness of the layer being placed. The embankment construction around the pipe shall continue up to an elevation 15 inches above the top of the pipe. Beyond these limits, the embankment shall be placed and compacted in accordance with the embankment construction requirements specified for the work except where the induced trench method is called for on the plans.

When construction equipment is used or traffic is maintained the Contractor shall provide a minimum cover of 3 feet over all pipes, if possible. Whenever this cover extends above the subgrade the Contractor shall temporarily place earth, which shall be removed when necessary

to complete the work in accordance with the plans, or as directed. Any deviation from this practice shall have prior approval.

603.09 Induced Trench Under this method, for designated rigid pipes only, the embankment shall be completed as specified above, to a height above the culvert equal to the vertical outside diameter of the pipe plus 1 foot. A trench, equal in width to the outside horizontal diameter of the pipe, shall then be excavated to within 1 foot of the top of the pipe. Trench walls shall be as nearly vertical as possible. Hay bales shall be used to fill the lower 1/4 to 1/3 of the trench. Construction of the embankment above shall then proceed in a normal manner. The trench shall be loosely filled with highly compressible soil.

603.10 Removing and Relaying Culverts The pipe shall be carefully removed from its existing location, transported to and installed in the new location in accordance with these specifications for the particular type of pipe involved. Pipe damaged by the Contractor shall be replaced with pipe of similar type by the Contractor without additional compensation.

New metal bands or joint material shall be supplied and installed when necessary.

603.11 Method of Measurement Culvert and storm drain pipe of the different types and sizes, both new and re-laid, will be measured by the length in linear feet along the invert, laid as directed, complete in place, and accepted. Pipe laid in excess of the authorized length will not be included.

When the ends of a pipe are sloped or skewed, the amount to be included for payment shall be the length along the invert of the pipe.

When elbows, tees, wyes, or other special fittings are required, each fitting shall be included for payment as 3 additional linear feet of the largest pipeline involved.

Inlet grate units will be measured by each unit installed, complete in place, and accepted.

Concrete pipe ties shall be measured per Group (2 ties per Group).

603.12 Basis of Payment The accepted quantities of pipe for culverts and storm drains will be paid for at the contract unit price per linear foot, for the types and sizes specified, complete in place.

No payment will be made for pipe ordered without written approval of the Resident when such pipe is not required to be installed for completion of the work.

Excavation for culverts and storm drains, including excavation below the pipe, for induced trench and for bedding and backfilling will be considered incidental, except as provided in Section 206 - Structural Excavation.

Whenever minimum cover material extends above the subgrade, removal of the cover material necessary to complete the work will not be paid for directly but shall be considered part of the work specified herein.

Coupling bands and joint material will not be paid for separately but shall be considered included in the unit bid price for the type of pipe being used or re-laid.

Existing culverts to be re-laid, salvaged, or wasted shall be removed and disposed of as directed. The excavation for removal of these culverts that is not paid for under other items or incidental to other items shall be paid for as Common Excavation.

Inlet grate units will be paid for at the contract unit price each for the size specified, complete in place.

The accepted quantity of concrete pipe ties will be paid for at the contract unit price per Group. Such payment will be full compensation for furnishing, installing, and all other necessary incidentals for satisfactory completion of the work. Any grout or mortar necessary to repair chipping shall be incidental to the installation of the pipe ties.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
603.15 12 inch Culvert Pipe Option I	Linear Foot
603.16 15 inch Culvert Pipe Option I	Linear Foot
603.17 18 inch Culvert Pipe Option I	Linear Foot
603.18 21 inch Culvert Pipe Option I	Linear Foot
603.19 24 inch Culvert Pipe Option I	Linear Foot
603.20 30 inch Culvert Pipe Option I	Linear Foot
603.21 36 inch Culvert Pipe Option I	Linear Foot
603.159 12 inch Culvert Pipe Option III	Linear Foot
603.169 15 inch Culvert Pipe Option III	Linear Foot
603.179 18 inch Culvert Pipe Option III	Linear Foot
603.189 21 inch Culvert Pipe Option III	Linear Foot
603.199 24 inch Culvert Pipe Option III	Linear Foot
603.2009 27 inch Culvert Pipe Option III	Linear Foot
603.209 30 inch Culvert Pipe Option III	Linear Foot
603.2019 33 inch Culvert Pipe Option III	Linear Foot
603.219 36 inch Culvert Pipe Option III	Linear Foot
603.229 42 inch Culvert Pipe Option III	Linear Foot
603.239 48 inch Culvert Pipe Option III	Linear Foot
603.249 54 inch Culvert Pipe Option III	Linear Foot
603.259 60 inch Culvert Pipe Option III	Linear Foot
603.269 66 inch Culvert Pipe Option III	Linear Foot
603.279 72 inch Culvert Pipe Option III	Linear Foot
603.289 84 inch Culvert Pipe Option III	Linear Foot
603.30 21 inch span by 15 inch rise Pipe Arch Option III	Linear Foot

603.31	24 inch span by 18 inch rise Pipe Arch Option III	Linear Foot
603.32	28 inch span by 20 inch rise Pipe Arch Option III	Linear Foot
603.33	35 inch span by 24 inch rise Pipe Arch Option III	Linear Foot
603.34	42 inch span by 29 inch rise Pipe Arch Option III	Linear Foot
603.35	49 inch span by 33 inch rise Pipe Arch Option III	Linear Foot
603.36	57 inch span by 38 inch rise Pipe Arch Option III	Linear Foot
603.37	64 inch span by 43 inch rise Pipe Arch Option III	Linear Foot
603.38	66 inch span by 51 inch rise Pipe Arch Option III	Linear Foot
603.39	73 inch span by 55 inch rise Pipe Arch Option III	Linear Foot
603.40	81 inch span by 59 inch rise Pipe Arch Option III	Linear Foot
603.41	24 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.42	30 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.43	36 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.44	42 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.45	48 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.46	54 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.47	60 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.48	66 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.49	72 inch Reinforced Conc. Pipe Class IV	Linear Foot
603.55	Concrete Pipe Ties	Group
603.73	Remove and Relay Metal Pipe: _____	Linear Foot
603.7315	Remove and Relay 15 inch Metal Pipe	Linear Foot
603.7318	Remove and Relay 18 inch Metal Pipe	Linear Foot
603.7324	Remove and Relay 24 inch Metal Pipe	Linear Foot
603.733	Remove and Relay 30 inch Metal Pipe	Linear Foot
603.7336	Remove and Relay 36 inch Metal Pipe	Linear Foot
603.7348	Remove and Relay 48 inch Metal Pipe	Linear Foot
603.7372	Remove and Relay 72 inch Metal Pipe	Linear Foot
603.74	Remove and Relay Concrete Pipe: _____	Linear Foot
603.7415	Remove and Relay 15 inch Concrete Pipe	Linear Foot
603.7418	Remove and Relay 18 inch Concrete Pipe	Linear Foot
603.7421	Remove and Relay 21 inch Concrete Pipe	Linear Foot
603.7424	Remove and Relay 24 inch Concrete Pipe	Linear Foot
603.743	Remove and Relay 30 inch Concrete Pipe	Linear Foot
603.7436	Remove and Relay 36 inch Concrete Pipe	Linear Foot
603.7442	Remove and Relay 42 inch Concrete Pipe	Linear Foot
603.7448	Remove and Relay 48 inch Concrete Pipe	Linear Foot
603.7454	Remove and Relay 54 inch Concrete Pipe	Linear Foot
603.746	Remove and Relay 60 inch Concrete Pipe	Linear Foot
603.7472	Remove and Relay 72 inch Concrete Pipe	Linear Foot
603.75	6 inch Inlet Grate Unit	Each
603.76	12 inch Inlet Grate Unit	Each
603.77	15 inch Inlet Grate Unit	Each
603.78	18 inch Inlet Grate Unit	Each
603.79	21 inch Inlet Grate Unit	Each
603.80	24 inch Inlet Grate Unit	Each

603.81	30 inch Inlet Grate Unit	Each
603.82	36 inch Inlet Grate Unit	Each

706.10 Corrugated Polypropylene Pipe for Option I and Option III Culvert Pipe

Option I/III pipe and fittings shall conform to the requirements of AASHTO M 330 Type S (dual wall) or Type D (triple wall). All polypropylene pipe shall be smooth lined and shall meet the pipe stiffness requirements of AASHTO M 330. The manufacturing plants of polypropylene pipe shall participate annually in the National Transportation Product Evaluation Program (NTPEP) process for plastic pipe and resins which includes audits by the AASHTO Materials Reference Laboratory (AMRL). Plants shall be listed as “Compliant” on the NTPEP website and take immediate corrective action for any deficiencies found during audits. Continued compliance with all elements of the NTPEP/AMRL program and the Maine DOT manufactured Materials Verification Program will be required in order to continue supplying product to the Maine DOT.

SPECIAL PROVISION
SECTION 603
PIPE CULVERTS AND STORM DRAINS

603.12 Basis of Payment: This section shall be amended with the addition of the following:

<u>Pay Item</u>	<u>Pay Unit</u>
603.285 84" RCP Class III	LF

SPECIAL PROVISION
SECTION 606
GUARDRAIL

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. The types of guardrail are designated as follows:

Type 3-Galvanized steel "w" beam, wood posts or galvanized steel posts.

Type 3a-Galvanized steel "w" beam, wood posts, wood or composite offset blocks.

Type 3aa-Corrosion resistant steel "w" beam, wood posts, wood or composite offset blocks.

Type 3b-Galvanized steel "w" beam, galvanized steel posts, galvanized steel offset blocks.

Type 3c-Galvanized steel "w" beam, wood posts or galvanized steel posts, wood or composite offset blocks.

Type 3d-Galvanized steel "w" beam, galvanized steel posts, wood or composite offset blocks.

Thrie Beam-Galvanized steel thrie beam, wood posts or galvanized steel posts, wood or composite offset blocks.

Median barriers shall consist of two beams of the above types, mounted on single posts. Except for thrie beam, median barriers may include rub rails when called for.

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 endpost 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, 2.44m [8 ft] long, 3.72 kg/m [2 ½ lb/ft] minimum and have 9.5 mm [3/8 in] round holes, 25 mm [1 in] center to center for a minimum distance of 610 mm [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 end treatment's terminal and its tangent point, both at the leading and trailing ends of each run of guardrail. The marker's flexible posts shall be grey 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 end treatment is not flared, markers will only be required at the end treatment's terminal. 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 Maine DOT's Approved Product List of Guardrail Material. The marker shall be grey, flexible, durable, and of a non-discoloring material to which 75 mm [3 in] by 225 mm [9 in] reflectors shall be applied, and capable of recovering from repeated impacts. 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 20 m [62.5 ft] intervals or every tenth post on tangents and at approximately 10 m [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 Detail 606(07). 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 Approved Products List and shall be NCHRP 350 tested and approved.

The Guardrail 350 Flared Terminal shall be a terminal with a 1.2 m [4 ft] offset as shown in the Manufacturer's installation instructions.

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 13 mm [$\frac{1}{2}$ in]. 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 meter [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.

Terminal section, low volume end, NCHRP 350 end treatments, reflectorized flexible guardrail marker, terminal end, 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 measured by the cubic meter [cubic yard] determined from the actual depth of the hole and a hypothetical circle diameter of 600 mm [2 ft].

606.09 Basis of Payment The accepted quantities of guardrail will be paid for at the contract unit price per meter [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. Terminal section, buffer end, NCHRP 350 end treatment, bridge connection, single post and reflectorized flexible guardrail markers will be paid for at the contract unit price each for the kind specified complete in place.

NCHRP 350 end treatments and low volume guardrail ends 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. Each end treatment will be clearly marked with the manufacturers 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 Pay Item 206.07. 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 75 mm [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 350 flared terminal 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 45 m [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 meter and will be full compensation for adjusting to grade. Payment shall also include adjusting terminal end treatments where required.

Modify guardrail will be paid for at the contract unit price per meter 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 terminal ends where required.

Remove and Reset guardrail will be paid for at the contract unit price per meter 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 terminal ends when required. 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.

Remove, Modify, and Reset guardrail will be paid for at the contract unit price per meter 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.

Payment will be made under:

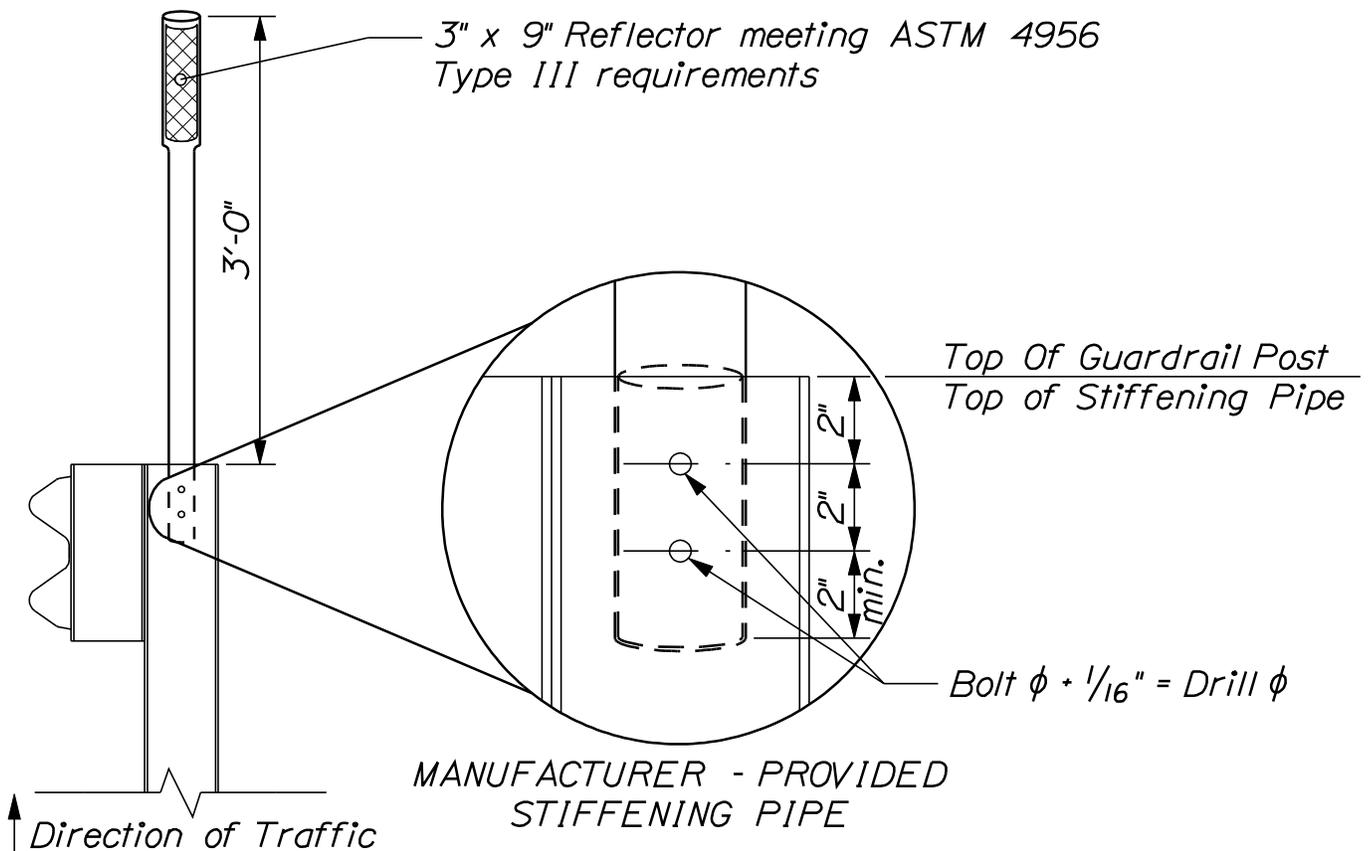
<u>Pay Item</u>	<u>Pay Unit</u>	
606.15	Guardrail Type 3a-Single Rail	meter [Linear Foot]
606.151	Guardrail Type 3aa-Single Rail	meter [Linear Foot]
606.17	Guardrail Type 3b-Single Rail	meter [Linear Foot]
606.1721	Bridge Transition - Type I	Each
606.1722	Bridge Transition - Type II	Each
606.1731	Bridge Connection - Type I	Each
606.1732	Bridge Connection - Type II	Each
606.178	Guardrail Beam	meter [Linear foot]
606.18	Guardrail Type 3b - Double Rail	meter [Linear foot]
606.19	Guardrail Type 3a - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.191	Guardrail Type 3aa - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.20	Guardrail Type 3a - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.201	Guardrail Type 3aa - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.21	Guardrail Type 3b - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.22	Guardrail Type 3b - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.23	Guardrail Type 3c - Single Rail	meter [Linear Foot]
606.2301	Guardrail Type 3c - Double Rail	meter [Linear Foot]
606.231	Guardrail Type 3c - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.232	Guardrail Type 3c - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.24	Guardrail Type 3d - Single Rail	meter [Linear Foot]
606.2401	Guardrail Type 3d - Double Rail	meter [Linear Foot]
606.241	Guardrail Type 3d - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.242	Guardrail Type 3d - over 4.5 m [15 feet] radius	meter [Linear Foot]
606.25	Terminal Connector	Each
606.257	Terminal Connector - Thrie Beam	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, Type 3b to 3c	meter [Linear Foot]
606.3581	Guardrail, Modify Existing to Type 3d	meter [Linear Foot]
606.362	Guardrail, Adjust	meter [Linear Foot]
606.365	Guardrail, Remove, Modify, and Reset, Type 3b to 3c	meter [Linear Foot]
606.3651	Guardrail, Remove, Modify, and Reset Existing to Type 3d	meter [Linear Foot]
606.366	Guardrail, Removed and Reset, Type 3c	meter [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
606.55	Guardrail Type 3 - Single Rail	meter [Linear Foot]
606.551	Guardrail Type 3 - Single Rail with Rub Rail	meter [Linear Foot]
606.56	Guardrail Type 3 - Double Rail	meter [Linear Foot]
606.561	Guardrail Type 3 - Double Rail with Rub Rail	meter [Linear Foot]
606.568	Guardrail, Modify Type 3c -Double Rail	meter [Linear Foot]
606.59	Guardrail Type 3 - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.60	Guardrail Type 3 - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.63	Thrie Beam Rail Beam	meter [Linear Foot]
606.64	Guardrail Thrie Beam - Double Rail	meter [Linear Foot]
606.65	Guardrail Thrie Beam - Single Rail	meter [Linear Foot]
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 4.5 m [15 ft] radius and less	meter [Linear Foot]
606.72	Guardrail Thrie Beam - over 4.5 m [15 ft] radius	meter [Linear Foot]
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	meter [Linear Foot]
606.74	Guardrail Type 3 - Single Rail Bridge Mounted	meter [Linear Foot]
606.753	Widen Shoulder for Low Volume Guardrail End - Type 3	Each
606.754	Widen Shoulder for Guardrail 350 Flared Terminal	Each
606.78	Low Volume Guardrail End - Type 3	Each
606.79	Guardrail 350 Flared Terminal	Each

1. ReflectORIZED Flexible Guardrail Markers shall be from Maine DOT's Approved Product List of Guardrail Material.

2. Installation:

- a. Each bolt-hole diameter shall be the bolt diameter + $1/16$ ".
- b. Wood post attachment - attach marker with 2, $5/16$ " diameter zinc-coated lag bolts, having 2" of embedment into wood post.
- c. Steel post attachment - attach marker with 2, $1/4$ " diameter zinc-coated bolt, washer and nut assemblies, having $1/2$ " of bolt extension behind steel post.
- d. When provided by the marker manufacturer, a stiffening pipe shall be inserted into the base of the marker prior to drilling bolt holes and shall remain in-place.



REFLECTORIZED FLEXIBLE GUARDRAIL MARKER DETAILS

606(34)

SPECIAL PROVISION
SECTION 627
PAVEMENT MARKINGS

The last paragraph of Subsection 627.10, Basis of Payment is revised by the addition of the following:

<u>Pay Item</u>	<u>Pay Unit</u>
627.733 4" White or Yellow Painted Pavement Marking Line	LF

SPECIAL PROVISION
SECTION 631
EQUIPMENT RENTAL

The following are added to Subsection 631.02 and 631.08

631.02 General

<u>Equipment</u>	<u>Description</u>	<u>Minimum Size</u>
Tractor Mounted Hydraulic Hammer	Hydraulic hammer to be mounted on Heavy Duty All Purpose Excavator	<ul style="list-style-type: none">• 2.3 Mg [2.5 ton] minimum weight• 0.15 m [0.5 ft] Minimum Ram / Hammer Diameter• 8,000 Ft-Lbs minimum impact energy

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
631.111 Tractor Mounted Hydraulic Hammer (Including Operator)	Hour

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

Approaches Approach signing shall include the following signs as 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
- End Road Work

Work Area At each work site, signs and channelizing devices shall be used as directed by the Resident. Signs include:

- Road Work xxxx ¹
- 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.

The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 800 m [2,500 ft] at each work area. To encourage quality paving in warm-weather conditions, the length can be extended to 4,000 ft depending on the traffic impacts. Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1.6 km [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 mobile operations and “Road Work xx ft” to be used in stationary operations as directed by the Resident.

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SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
(Traffic Control)

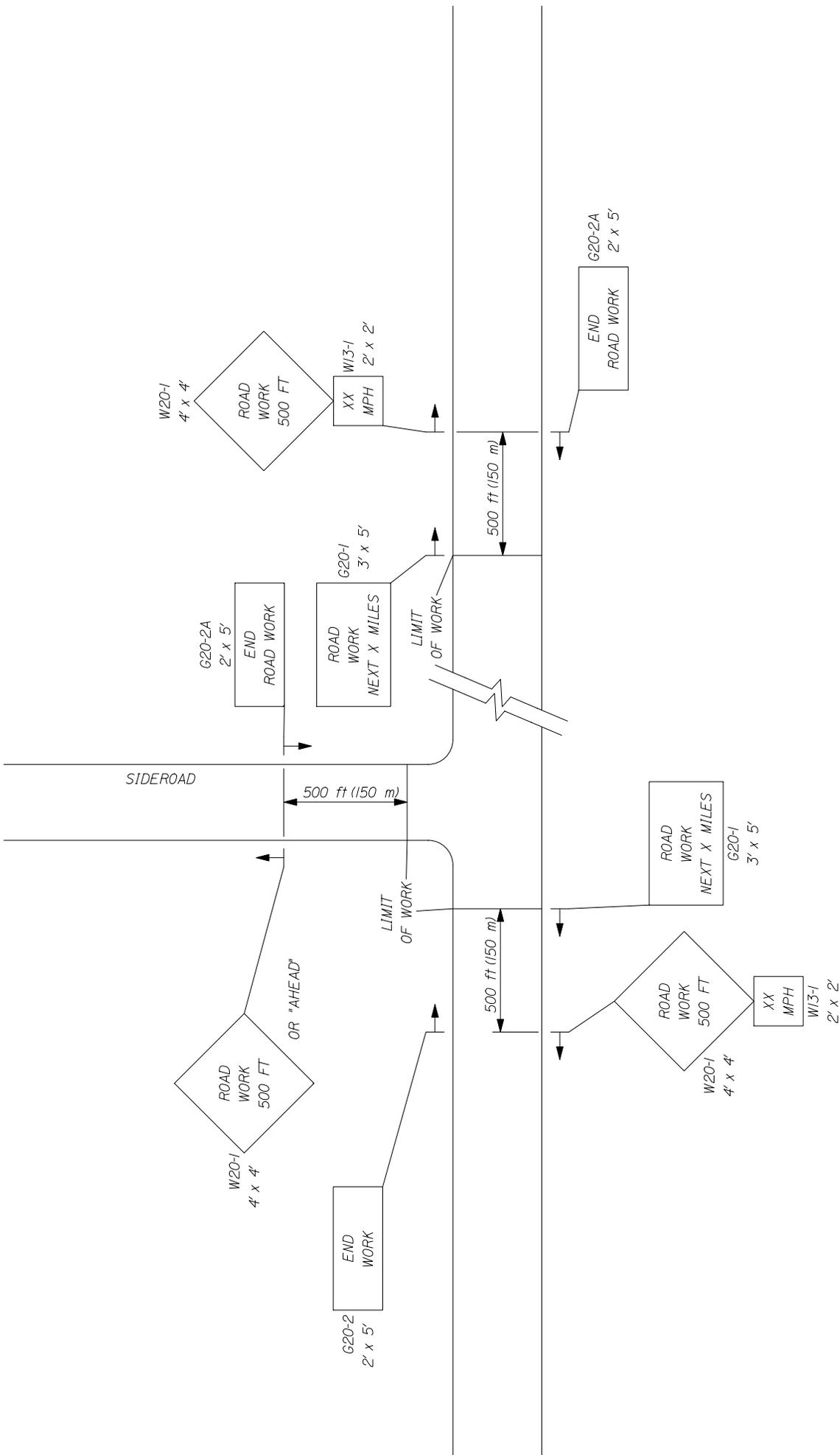
Failure by the contractor to follow the Contracts 652 Special Provisions and Standard Specification and/or The Manual on Uniform Traffic Control Devices (MUTCD) and/or The Contractors own Traffic Control Plan will result in a violation letter and result in a reduction in payment as shown in the schedule below. The Department’s Resident or any other representative of The Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Any reduction in payment under this Special Provision will be in addition to forfeiting payment of maintenance of traffic control devices for that day.

**ORIGINAL CONTRACT
AMOUNT**

<u>From More Than</u>	<u>Up to and Including</u>	<u>Amount of Penalty Damages per Violation</u>		
		<u>1st</u>	<u>2nd</u>	<u>3rd & Subsequent</u>
\$0	\$1,000,000	\$250	\$500	\$1,250
\$1,000,000	\$2,000,000	\$500	\$1,000	\$2,500
\$2,000,000	\$4,000,000	\$1,000	\$2,000	\$5,000
\$4,000,000	and more	\$2,000	\$4,000	\$10,000

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC
Construction Sign Sheeting Material

Super high intensity fluorescent retroreflective sheeting, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic), is required for all construction signs.



-- PROJECT APPROACH SIGNING --
TWO WAY TRAFFIC

* Formulas for L are as follows:

For speed limits of 40 mph (60 km/h) or less:

$$L = \frac{WS^2}{60} \quad (L = \frac{WS^2}{155})$$

For speed limits of 45 mph (70 km/h) or greater:

$$L = WS \quad (L = \frac{WS}{1.6})$$

* Formulas for L are as follows:

A minimum of 5 channelization devices shall be used in the taper.

TYPE OF TAPER	TAPER LENGTH (L)*
Merging Taper	at least L
Shifting Taper	at least 0.5L
Shoulder Taper	at least 0.33L
One-Lane, Two-Way Traffic Taper	100 ft (30 m) maximum
Downstream Taper	100 ft (30 m) per lane

CHANNELIZATION DEVICE SPACING

The spacing of channelization devices shall not exceed a distance equal to 1.0 times the speed limit in mph when used for taper channelization, and a distance in feet of 2.0 times the speed limit in mph when used for tangent channelization.

GENERAL NOTES;

1. Final placement of signs and devices may be changed to fit field conditions as approved by the Resident.

Road Type	Distance Between Signs**		
	A	B	C
Urban 30 mph (50 km/h) or less	100 (30)	100 (30)	100 (30)
Urban 35 mph (55 km/h) and greater	350 (100)	350 (100)	350 (100)
Rural	500 (150)	500 (150)	500 (150)
Expressway / Urban Parkway	2,640 (800)	1,500 (450)	1000 (300)

**Distances are shown in feet (meters).

SUGGESTED BUFFER ZONE LENGTHS

Speed (mph)	Length (feet)	Speed (mph)	Length (feet)
20	115	40	325
25	155	45	360
30	200	50	425
35	250	55	495

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

The following is added to Section 656 regarding Project Specific Information and Requirements. All references to the Maine Department of Transportation Best Management Practices for Erosion and Sedimentation Control (a.k.a. Best Management Practices manual or BMP Manual) are a reference to the latest revision of said manual. The latest version is dated "February 2008" and is available at:

<http://www.maine.gov/mdot/environmental-office-homepage/surface-water-resources.php>

Procedures specified shall be according to the BMP Manual unless stated otherwise.

Project Specific Information and Requirements

The following information and requirements apply specifically to this Project. The temporary soil erosion and water pollution control measures associated with this work shall be addressed in the Soil Erosion and Water Pollution Control Plan (SEWPCP.)

- 1) This project is in the Atlantic Ocean estuary, which is listed as Class SB. Ripley Brook is located within the Distinct Population Segment (DPS) and Critical Habitat (CH) for Atlantic Salmon, and is considered **SENSITIVE** in accordance with the BMP Manual. The Contractor's SEWPCP shall comply with Section II, Standards and Commitments in the BMP Manual.
- 2) Newly disturbed earth shall be mulched by the end of each workday. Mulch shall be maintained on a daily basis.
- 3) The SEWPCP shall describe the location and method of temporary erosion and sediment control for existing and proposed catch basins, outlet areas and culvert inlets and outlets.
- 4) The Contractors SEWPCP shall identify how water will be managed during the course of construction activities. Specific water management activities to be addressed shall include type and location of cofferdams, means of maintaining stream flow, and the type, location and size of sedimentation basins.
- 5) Stream flow shall be maintained at all times.
- 6) The SEWPCP shall describe the containment method for removal of the existing structures, including installation of cofferdams and dewatering procedures.
- 7) If a cofferdam sedimentation basin is used, it shall be located in an upland area where the water can settle and sink into the ground or be released slowly to the resource in a manner that will not cause erosion. The location of such a cofferdam sedimentation basin shall be addressed in the SEWPCP.
- 8) **CLEARING LIMIT LINES SHALL BE MINIMIZED.** Clearing shall be minimized as shown on the design plans. All clearing must be completed prior to October 1, 2014.

**SPECIAL PROVISION
SECTION 656**

Temporary Soil Erosion and Water Pollution Control

- 9) Permanent slope stabilization measures shall be applied within one week of the last soil disturbance.
- 10) Permanent seeding shall be done in accordance with *Standard Specification, Section 618 - Seeding* unless the Contract states otherwise.
- 11) All disturbed ditches shall be stabilized by the end of each workday. Stabilization shall be maintained on a daily basis.
- 12) Erosion control blanket shall be installed in the bottoms of all ditches except where a stone lining is planned. Seed shall be applied prior to the placement of the blanket.
- 13) After November 1 the Contractor shall use winter stabilization methods, such as Erosion Control Mix as specified in *Standard Specification, Section 619 - Mulch*. If required, spring procedures for permanent stabilization shall also be described in the plan. Use of this product for over-winter temporary erosion control will be incidental to the contract and be paid for as part of Pay Item 656.75.
- 14) Demolition debris (including debris from wearing surface removal, saw cut slurry, dust, etc.) shall be contained and shall not be allowed to discharge to any resource. All demolition debris shall be disposed of in accordance with *Standard Specifications, Section 202.03 Removing Existing Superstructure, Structural Concrete, Railings, Curbs, Sidewalks and Bridges*. Containment and disposal of demolition debris shall be addressed in the Contractor's SEWPCP.
- 15) Prior to release to a natural resource, any impounded water that has been in contact with concrete placed during construction must have a pH between 6.0 and 8.5, must be within one pH unit of the background pH level of the resource and shall have a turbidity 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. Water not meeting release criteria shall be addressed in the SEWPCP. Discharging impounded water to the stream or coastal wetland must take place in a manner that does not cause erosion or disturb the stream bottom or intertidal zone. **The rate of discharge must be less than 20% of the flow rate of the stream.**
- 16) Dust control items other than those under *Standard Specification, Section 637 Dust Control*, if applicable, shall be included in the plan.

SPECIAL PROVISION 700 - MATERIALS

SECTION 702 - BITUMINOUS MATERIAL

702.01 Asphalt Cement Performance Graded Asphalt Binder shall conform to the requirements of AASHTO M 320 or AASHTO MP 19, whichever is indicated in the contract documents. For Performance-Graded Asphalt Binder (PGAB), the Contractor shall arrange for the Supplier to furnish the following items to the Department's Materials Testing Engineer.

- a. A Quality-Control Plan for PGAB that conforms to the requirements of AASHTO R 26 "Certifying Suppliers of Performance-Graded Asphalt Binders" and
- b. A CERTIFICATE OF ANALYSIS for all asphalt materials furnished for use on the project. The Certificate shall include the actual test results of the material in storage from which the shipments are being made. Certificates shall be supplied for each lot, batch, or blend of each type and grade of material. A new certificate shall be issued at least every 30 days or upon receiving or manufacture of a new material. The original of each Certificate of Analysis shall be mailed to the Departments Materials Testing Engineer.

The Contractor shall give the supplier sufficient advance notice of orders to permit testing. Material not represented by tests will not be accepted for use on the work.

Deliveries of asphalt materials shall be accompanied by a loading invoice, delivery ticket, or slip, as required under Section 108.1.3 f. The Loading Invoice shall include the applicable certificate number and shall include a printed or stamped statement such as the following:

"THIS IS TO CERTIFY THAT THE ASPHALT MATERIAL REPRESENTED BY THIS LOADING INVOICE CONFORMS TO THE SPECIFICATIONS OF THE PURCHASER FOR THE MATERIAL TYPE AND GRADE STATED THEREON."

In the event an intermediate hauler of the asphalt material is involved, a copy of their own delivery slip shall be furnished, as well as a copy of the supplier's loading invoice. The hauler's delivery slip and the supplier's loading invoice shall be cross-referenced by use of their respective serial numbers.

702.04 Emulsified Asphalt Emulsified Asphalt shall conform to the requirements of AASHTO M 140. Cationic emulsified asphalt shall conform to the requirements of AASHTO M 208.

Use of all emulsified asphalt shall comply with all Department of Environmental Protection (DEP) regulations regarding maximum amount of oil distillate, seasonal limitations, etc.

For emulsified asphalts, the Contractor shall arrange for the Supplier to furnish the following item to the Department's Materials Testing Engineer.

A CERTIFICATE OF ANALYSIS for all asphalt emulsion materials furnished for use on the project. The Certificate shall include the actual test results of the material in storage from which the shipments are being made. Certificates shall be supplied for each lot or batch for each

grade/type of emulsion. A new certificate shall be issued at least every 30 days or upon receiving or manufacture of a new material. The original of each Certificate of Analysis shall be mailed to the Department's Materials Testing Engineer.

Deliveries of emulsion materials shall be accompanied by a loading invoice, delivery ticket, or slip, as required under Section 108.1.3 f. The Loading Invoice shall include the applicable certificate number and shall include a printed or stamped statement such as the following:

“THIS IS TO CERTIFY THAT THE ASPHALT MATERIAL REPRESENTED BY THIS LOADING INVOICE CONFORMS TO THE SPECIFICATIONS OF THE PURCHASER FOR THE MATERIAL TYPE AND GRADE STATED THEREON.”

In the event an intermediate hauler of the asphalt material is involved, a copy of their own delivery slip shall be furnished, as well as a copy of the supplier's loading invoice. The hauler's delivery slip and the supplier's loading invoice shall be cross-referenced by use of their respective serial numbers.

SECTION 703 - AGGREGATES

703.07 Aggregates for HMA Pavements Coarse aggregate and fine aggregate for hot mix asphalt pavements shall be of such gradation that when combined in the proper proportions, including filler, if required, the resultant blend will meet the composition of mixture for the type of pavement specified.

Coarse aggregate, that material retained on the No. 4 sieve, shall be crushed stone or crushed gravel and, unless otherwise stipulated, shall consist of clean, tough, durable fragments free from an excess of soft or disintegrated pieces and free from stone coated with dirt or other objectionable matter. Coarse aggregate, shall not exceed an absorption of 2.0 percent by weight as determined by AASHTO T 85.

Fine aggregate, material that passes the No. 4 sieve, shall consist of natural sand, manufactured sand, or a combination of these. It shall consist of hard, tough grains, free from injurious amounts of clay, loam, or other deleterious substances. Fine aggregate, shall not exceed an absorption of 2.3 percent by weight as determined by AASHTO T 84.

The composite blend, minus any recycled asphalt pavement used (RAP), shall have a Micro-Deval value of 18.0 percent or less as determined by AASHTO T 327. In the event the material exceeds the Micro-Deval limit, a Washington Degradation test shall be performed. The material shall be acceptable if it has a value of 30 or more as determined by Washington State DOT Test Method T 113, Method of Test for Determination of Degradation Value (January 2009 version) except that the reported degradation value will be the result of testing a single composite specimen from that portion of the sample that passes the ½ inch sieve and is retained on the No. 10 sieve, minus any reclaimed asphalt pavement used.

Aggregates shall also meet the following consensus properties, except that aggregates extracted from RAP will not be included in the sand equivalent test. The Department reserves the right to sample and test the composite aggregate for any of the following properties at any time:

TABLE 3: Aggregate Consensus Properties Criteria

Estimated Traffic, Million 18 kip ESALs	AASHTO T 335 Coarse Aggregate Angularity (minimum)	AASHTO T 304 Method A Uncompacted Void Content of Fine Aggregate (min)	ASTM D 4791 (8.4) Flat and Elongated Particles (maximum)	AASHTO T 176 Clay Content/ Sand Equivalent (minimum)
< 0.3	60/60	40	10	45
0.3 to < 3.0	75/60			
3.0 to < 10	85/80			
10 to < 30	95/90			
≥ 30	100/100	45		50

ASTM D 5821 - “85/80 denotes that 85 percent of the coarse aggregate has one fractured face and 80 percent has two fractured faces.

AASHTO T 304 - Criteria are presented as percent air voids in loosely compacted fine aggregate, (U).

ASTM D 4791 - Criteria are presented as maximum percent by weight of flat and elongated particles (5:1 ratio).

The entire HMA wearing course shall come from the same source of material and the same job mix formula, except when permission is obtained from the Department to change sources.

703.08 Recycled Asphalt Pavement Recycled asphalt pavement shall consist of salvaged asphalt materials from milled pavements or production waste that has been processed before use to meet the requirements of the job mix formula. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

703.081 RAP for Asphalt Pavement Recycled Asphalt Pavement (RAP) may be introduced into hot-mix asphalt pavement at percentages approved by the Department according to the MaineDOT Policies and Procedures for HMA Sampling and Testing. If approved by the Department, the Contractor shall provide documentation stating the source, test results for average residual asphalt content, and stockpile gradations showing RAP materials have been sized to meet the maximum aggregate size requirements of each mix designation. The Department will obtain samples for verification and approval prior to its use.

The maximum allowable percent of RAP shall be determined by the asphalt content, the percent passing the 0.075 mm sieve, and Coarse Micro-Deval loss values as tested by the Department. The numerical average of the percent passing the 0.075 mm sieve values will be used for the approval. The maximum percentage of RAP allowable shall be the lowest percentage as determined according to Table 4 below:

TABLE 4: Maximum Percent RAP According to Test Results

Classification	Maximum RAP Percentage Allowed	Asphalt content standard deviation	Percent passing 0.075 mm sieve	Residual aggregate M-D loss value
Class III	10%	N/A	> 11.0	≤ 18
Class II	20%	≤ 0.5	≤ 11.0	
Class I	30%	≤ 0.3	≤ 8.0	

The Department will monitor RAP asphalt content and gradation during production by testing samples from the stockpile at approximately 15,000 T intervals (in terms of mix production). The allowable variance limits (from the numerical average values used for mix designs) for this testing are determined based upon the maximum allowable RAP percentage, and are shown below in Table 5.

TABLE 5: RAP Verification Limits

Classification	Maximum RAP Percentage Allowed	Asphalt content (compared to aim)	Percent passing 0.075 mm sieve (compared to aim)	Percent passing 0.075 mm sieve
Class III	10%	± 1.5	± 2.0	N/A
Class II	20%	± 1.0	± 1.5	≤ 11.0
Class I	30%	± 0.5	± 1.0	≤ 8.0

For specification purposes, RAP will be categorized as follows:

Class III – A maximum of 10.0 percent of Class III RAP may be used in any base, intermediate base, surface, or shim mixture. A maximum of 20.0 percent of Class III RAP may be used in hand-placed mixes for item 403.209.

Class II – A maximum of 20.0 percent Class II RAP in any base, binder, surface, or shim course.

Class I – A maximum of 20.0 percent Class I RAP may be used in any base, intermediate base, surface, or shim mixture without requiring a change to the specified asphalt binder. A maximum of 30.0 percent Class I RAP may be used in in any base or intermediate base mixture provided that a PG 58-28 asphalt binder is used. A maximum of 30.0 percent Class I RAP may be used in any surface or shim mixture provided that PG 58-34 or 52-34 asphalt binder is used. Mixtures exceeding 20.0 percent Class I RAP must be evaluated and approved by the Department.

The Contractor may use up to two different RAP sources in any one mix design. The total RAP percentage of the mix shall not exceed the maximum allowed for the highest classification RAP source used (i.e. if a Class I & Class III used, total RAP must not exceed 30.0%). The blended RAP material must meet all the requirements of the classification for which the RAP is entered (i.e. 10% Class III with 20% Class I, blend must meet Class I criteria). The Department may take belt cuts of the blended RAP to verify the material meets these requirements. If the

Contractor elects to use more than one RAP source in a design, the Contractor shall provide an acceptable point of sampling blended RAP material from the feed belt.

In the event that RAP source or properties change, the Contractor shall notify the Department of the change and submit new documentation stating the new source or properties a minimum of 72 hours prior to the change to allow for obtaining new samples and approval.

703.09 HMA Mixture Composition The coarse and fine aggregate shall meet the requirements of Section 703.07. The several aggregate fractions for mixtures shall be sized, graded, and combined in such proportions that the resulting composite blends, including RAP aggregate will meet the grading requirements of the following table:

Aggregate Gradation Control Points

Sieve Designation	Nominal Maximum Aggregate Size---Control Points (Percent Passing)					
	Type 25 mm	Type 19 mm	Type 12.5 mm	Type 9.5 mm	Type 9.5 mm Thin Lift Mixture (TLM)	Type 4.75 mm
	Percent By Weight Passing - Combined Aggregate					
37.5 mm	100					
25 mm	90-100	100				
19 mm	-90	90-100	100			
12.5 mm		-90	90-100	100	100	100
9.5 mm		-	-90	90-100	95-100	95-100
4.75 mm		-	-	-90	60-95	80-100
2.36 mm	19-45	23-49	28-58	32-67	40-65	40 - 80
1.18 mm		-	-	-	-	-
600 µm		-	-	-	-	-
300 µm		-	-	-	-	-
75 µm	2.0-6.0	2.0-6.0	2.0-6.0	2.0-7.0*	2.0-7.0*	2.0-7.0

* For 9.5 mm nominal maximum aggregate size mixtures, the maximum design aim for the percent passing the 75 µm sieve is 6.5%.

STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:

http://www.maine.gov/mdot/contractor-consultant-information/ss_standard_details_updates.php

<u>Detail #</u>	<u>Description</u>	<u>Revision Date</u>
203(03)	Backslope Rounding	1/29/08
502(03)	Concrete Curb - Bituminous Wearing Surface	8/08/11
502(03)A	Concrete Curb - Concrete Wearing Surface	2/2/09
502(07)	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(07)A	Precast Concrete Deck Panels - Layout Plan	2/2/09
502(08)	Precast Concrete Deck Panels - Panel Plan	2/2/09
502(09)	Precast Concrete Deck Panels - Blocking Detail	2/2/09
502(10)	Precast Concrete Deck Panels	2/2/09
502(11)	Precast Concrete Deck Panels	2/2/09
502(12)	Precast Concrete Deck Panels - Notes	10/28/09
502(12)A	Precast Concrete Deck Panels - Notes	2/2/09
504(15)	Diaphragms	5/19/11
504(21)	Tension Flange Connection for Diaphragm and Cross Frames	10-11-12
504(22)	Diaphragm & Crossframe Notes	10/11/12
504(23)	Hand-Hold Details	12/08/05
502(24)	Hand-Hold Details	10/11/12
507(04)	Steel Bridge Railing	2/05/03
507(04A)	Steel Bridge Railing	7/3/13
507(09)	Steel Bridge Railing	5/19/11
507(09)A	Steel Bridge Railing	5/19/11

526(06)	Permanent Concrete Barrier	2/2/09
526(08)	Permanent Concrete Barrier – Type IIIA	10/07/10
526(08)A	Permanent Concrete Barrier – Type IIIA	12/07/10
526(13)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(14)	Permanent Concrete Barrier – Type IIIB	2/2/09
526(21)	Concrete Transition Barrier	2/2/09
526(29A)	Concrete Transition Barrier	5/1/13
526(29B)	Concrete Transition Barrier	5/1/13
526(29C)	Concrete Transition Barrier	5/1/13
526(33)	Concrete Transition Barrier	5/1/13
526(39)	Texas Classic Rail – Between Window	2/2/09
526(40)	Texas Classic Rail – Through Window	2/2/09
526(41)	Texas Classic Rail – Through Post	2/2/09
526(42)	Texas Classic Rail – Through Nose	2/2/09
535(01)	Precast Superstructure - Shear Key	10/12/06
535(02)	Precast Superstructure - Curb Key & Drip Notch	5/20/08
535(03)	Precast Superstructure - Shear Key	12/5/07
535(04)	Precast Superstructure - Shear Key	12/05/07
535(05)	Precast Superstructure - Post Tensioning	5/20/08
535(06)	Precast Superstructure - Sections	10/12/06
535(07)	Precast Superstructure - Precast Slab & Box	10/12/06
535(08)	Precast Superstructure - Sections	10/12/06
535(09)	Precast Superstructure - Sections	10/12/06
535(10)	Precast Superstructure - Sections	10/12/06
535(11)	Precast Superstructure - Sections	10/12/06

535(12)	Precast Superstructure - Sections	10/12/06
535(13)	Precast Superstructure - Sections	10/12/06
535(14)	Precast Superstructure - Stirrups	10/12/06
535(15)	Precast Superstructure - Plan	10/12/06
535(16)	Precast Superstructure - Reinforcing	10/12/06
535(17)	Precast Superstructure - Notes	12/05/07
604(01)	Catch Basins	11/16/05
604(05)	Type "A" & "B" Catch Basin Tops	11/16/05
604(06)	Type "C" Catch Basin Tops	11/16/05
604(07)	Manhole Top "D"	11/16/05
604(09)	Catch Basin Type "E"	11/16/05
604(18)	Utility Structures	03/18/14
606(02)	Multiple Mailbox Support	11/16/05
606(03)	Guardrail Standard Detail	9/19/12
606(07)	Reflectorized Beam Guardrail Delineator Details	11/16/05
606(20)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(21)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(22)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
606(23)	Guardrail - Type 3 - Single Rail - Bridge Mounted	2/2/09
609(03)	Curb Type 3	6/27/06
609(06)	Vertical Bridge Curb	2/12/09
609(07)	Curb Type 1	6/27/06
609(08)	Precast Concrete Transition Curb	2/2/09

610(02)	Stone Scour Protection	8/9/11
610(03)	Stone Scour Protection	5/19/11
610(04)	Stone Scour Protection	5/19/11
620(05)	Geotextile Placement for Protection of Slopes Adjacent to Stream & Tidal Areas	5/19/11
626(09)	Electrical Junction Box for Traffic Signals and Lighting	8/27/10
645(06)	H-Beam Posts – Highway Signing	7/21/04
645(09)	Installation of Type II Signs	7/21/04
801(01)	Drives on Sidewalk Sections	12/13/07
801(02)	Drives on Non-Sidewalk Sections	12/13/07

SUPPLEMENTAL SPECIFICATION

(Corrections, Additions, & Revisions to Standard Specifications - Revision of December 2002)

SECTION 101

CONTRACT INTERPRETATION

101.2 Definitions

Closeout Documentation Replace the sentence “A letter stating the amount..... DBE goals.” with “DBE Goal Attainment Verification Form”

Add “Environmental Information Hazardous waste assessments, dredge material test results, boring logs, geophysical studies, and other records and reports of the environmental conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

Add “Fabrication Engineer The Department’s representative responsible for Quality Assurance of pre-fabricated products that are produced off-site.”

Geotechnical Information Replace with the following: “Boring logs, soil reports, geotechnical design reports, ground penetrating radar evaluations, seismic refraction studies, and other records of subsurface conditions. For a related provision, see Section 104.3.14 - Interpretation and Interpolation.”

SECTION 102

DELIVERY OF BIDS

102.7.1 Location and Time Add the following sentence “As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Agreement, Offer, & Award form, a Bid Bond or Bid Guarantee, and any other Certifications or Bid Requirements listed in the Bid Book.”

102.11.1 Non-curable Bid Defects Replace E. with “E. The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department.”

SECTION 103

AWARD AND CONTRACTING

103.3.1 Notice and Information Gathering Change the first paragraph to read as follows: “After Bid Opening and as a condition for Award of a Contract, the Department may require an Apparent Successful Bidder to demonstrate to the Department’s satisfaction that the Bidder is responsible and qualified to perform the Work.”

SECTION 104

GENERAL RIGHTS AND RESPONSIBILITIES

104.3.14 Interpretation and Interpolation In the first sentence, change “...and Geotechnical Information.” to “...Environmental Information, and Geotechnical Information.”

SECTION 105 GENERAL SCOPE OF WORK

Delete the entire Section 105.6 and replace with the following:

105.6.1 Department Provided Services The Department will provide the Contractor with the description and coordinates of vertical and horizontal control points, set by the Department, within the Project Limits, for full construction Projects and other Projects where survey control is necessary. For Projects of 1,500 feet in length, or less: The Department will provide three points. For Projects between 1,500 and 5,000 feet in length: The Department will provide one set of two points at each end of the Project. For Projects in excess of 5,000 feet in length, the Department will provide one set of two points at each end of the Project, plus one additional set of two points for each mile of Project length. For non-full construction Projects and other Projects where survey control is not necessary, the Department will not set any control points and, therefore, will not provide description and coordinates of any control points. Upon request of the Contractor, the Department will provide the Department's survey data management software and Survey Manual to the Contractor, or its survey Subcontractor, for the exclusive use on the Department's Projects.

105.6.2 Contractor Provided Services Utilizing the survey information and points provided by the Department, described in Subsection 105.6.1, Department Provided Services, the Contractor shall provide all additional survey layout necessary to complete the Work. This may include, but not be limited to, reestablishing all points provided by the Department, establishing additional control points, running axis lines, providing layout and maintenance of all other lines, grades, or points, and survey quality control to ensure conformance with the Contract. The Contractor is also responsible for providing construction centerline, or close reference points, for all Utility Facilities relocations and adjustments as necessary to complete the Work. When the Work is to connect with existing Structures, the Contractor shall verify all dimensions before proceeding with the Work. The Contractor shall employ or retain competent engineering and/or surveying personnel to fulfill these responsibilities.

The Contractor must notify the Department of any errors or inconsistencies regarding the data and layout provided by the Department as provided by Section 104.3.3 - Duty to Notify Department If Ambiguities Discovered.

105.6.2.1 Survey Quality Control The Contractor is responsible for all construction survey quality control. Construction survey quality control is generally defined as, first, performing initial field survey layout of the Work and, second, performing an independent check of the initial layout using independent survey data to assure the accuracy of the initial layout; additional iterations of checks may be required if significant discrepancies are discovered in this process. Construction survey layout quality control also requires written documentation of the layout process such that the process can be followed and repeated, if necessary, by an independent survey crew.

105.6.3 Survey Quality Assurance It is the Department's prerogative to perform construction survey quality assurance. Construction survey quality assurance may, or may not, be performed by the Department. Construction survey quality assurance is generally defined as

an independent check of the construction survey quality control. The construction survey quality assurance process may involve physically checking the Contractor's construction survey layout using independent survey data, or may simply involve reviewing the construction survey quality control written documentation. If the Department elects to physically check the Contractor's survey layout, the Contractor's designated surveyor may be required to be present. The Department will provide a minimum notice of 48 hours to the Contractor, whenever possible, if the Contractor's designated surveyor's presence is required. Any errors discovered through the quality assurance process shall be corrected by the Contractor, at no additional cost to the Department.

105.6.4 Boundary Markers The Contractor shall preserve and protect from damage all monuments or other points that mark the boundaries of the Right-of-Way or abutting parcels that are outside the area that must be disturbed to perform the Work. The Contractor indemnifies and holds harmless the Department from all claims to reestablish the former location of all such monuments or points including claims arising from 14 MRSA § 7554-A. For a related provision, see Section 104.3.11 - Responsibility for Property of Others.

SECTION 106 QUALITY

106.4.3 Testing Change the first sentence in paragraph three from "...maintain records of all inspections and tests." to "...maintain original documentation of all inspections, tests, and calculations used to generate reports."

106.6 Acceptance Add the following to paragraph 1 of A: "This includes Sections 401 - Hot Mix Asphalt, 402 - Pavement Smoothness, and 502 - Structural Concrete - Method A - Air Content."

Add the following to the beginning of paragraph 3 of A: "For pay factors based on Quality Level Analysis, and"

106.7.1 Standard Deviation Method Add the following to F: "Note: In cases where the mean of the values is equal to either the USL or the LSL, then the PWL will be 50 regardless of the computed value of s."

Add the following to H: "Method C Hot Mix Asphalt: $PF = [55 + (Quality\ Level * 0.5)] * 0.01$ "

SECTION 107 TIME

107.3.1 General Add the following: "If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. Sunday or Holiday work must be approved by the Department, except that the Contractor may work on Martin Luther King Day, President's Day, Patriot's Day, the Friday after Thanksgiving, and Columbus Day without the Department's approval."

107.7.2 Schedule of Liquidated Damages Replace the table of Liquidated Damages as follows:

From	Up to and	Amount of Liquidated
------	-----------	----------------------

<u>More Than</u>	<u>Including</u>	<u>Damages per Calendar Day</u>
\$0	\$100,000	\$225
\$100,000	\$250,000	\$350
\$250,000	\$500,000	\$475
\$500,000	\$1,000,000	\$675
\$1,000,000	\$2,000,000	\$900
\$2,000,000	\$4,000,000	\$1,000
\$4,000,000	and more	\$2,100

SECTION 108 PAYMENT

Remove Section 108.4 and replace with the following:

“108.4 Payment for Materials Obtained and Stored Acting upon a request from the Contractor and accompanied by bills or receipted bills, the Department will pay for all or part of the value of acceptable, non-perishable Materials that are to be incorporated in the Work, including Materials that are to be incorporated into the Work, not delivered on the Work site, and stored at places acceptable to the Department. Examples of such Materials include steel piles, stone masonry, curbing, timber and lumber, metal Culverts, stone and sand, gravel, and other Materials. The Department will not make payment on living or perishable Materials until acceptably planted in their final locations.

If payment for Materials is made to the Contractor based on bills, only, then the Contractor must provide receipted bills to the Department for these Materials within 14 days of the date the Contractor receives payment for the Materials. Failure of the Contractor to provide receipted bills for these Materials within 14 days of the date the Contractor receives payment will result in the paid amount being withheld from the subsequent progress payment, or payments, until such time the receipted bills are received by the Department.

Materials paid for by the Department are the property of the Department, but the risk of loss shall remain with the Contractor. Payment for Materials does not constitute Acceptance of the Material. If Materials for which the Department has paid are later found to be unacceptable, then the Department may withhold amounts reflecting such unacceptable Materials from payments otherwise due the Contractor.

In the event of Default, the Department may use or cause to be used all paid-for Materials in any manner that is in the best interest of the Department.”

SECTION 109 CHANGES

109.1.1 Changes Permitted Add the following to the end of the paragraph: “There will be no adjustment to Contract Time due to an increase or decrease in quantities, compared to those estimated, except as addressed through Contract Modification(s).”

109.1.2 Substantial Changes to Major Items Add the following to the end of the paragraph: “Contract Time adjustments may be made for substantial changes to Major Items when the change affects the Critical Path, as determined by the Department”

109.4.4 Investigation / Adjustment Third sentence, delete the words “subsections (A) - (E)”

109.5.1 Definitions - Types of Delays

B. Compensable Delay Replace (1) with the following: “a weather related Uncontrollable Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an Equitable Adjustment if the Project falls within the geographic boundaries prescribed under the disaster declaration.”

109.7.2 Basis of Payment Replace with the following: “Adjustments will be established by mutual Agreement based upon Unit or Lump Sum Prices. These agreed Unit or Lump Sum prices will be full compensation and no additions or mark-ups are allowed. If Agreement cannot be reached, the Contractor shall accept payment on a Force Account basis as provided in Section 109.7.5 - Force Account Work, as full and complete compensation for all Work relating to the Equitable Adjustment.”

109.7.3 Compensable Items Delete this Section entirely.

109.7.4 Non-Compensable Items Replace with the following: “The Contractor is not entitled to compensation or reimbursement for any of the following items:

- A. Total profit or home office overhead in excess of 15%,
- B.”

109.7.5 Force Account Work

C. Equipment

Paragraph 2, delete sentence 1 which starts; “Equipment leased....”

Paragraph 6, change sentence 2 from “The Contractor may furnish...” to read “If requested by the Department, the Contractor will produce cost data to assist the Department in the establishment of such rental rate, including all records that are relevant to the Actual Costs including rental Receipts, acquisition costs, financing documents, lease Agreements, and maintenance and operational cost records.”

Add the following paragraph; “Equipment leased by the Contractor for Force Account Work and actually used on the Project will be paid for at the actual invoice amount plus 10% markup for administrative costs.”

Add the following section;

“F. Subcontractor Work When accomplishing Force Account Work that utilizes Subcontractors, the Contractor will be allowed a maximum markup of 5% for profit and overhead on the Subcontractor’s portion of the Force Account Work. If the Department does not accept the Subcontractor quote, then the Subcontractor work will be subject to the Force Account provisions with a 5% markup for profit & overhead..”

SECTION 110
INDEMNIFICATION, BONDING, AND INSURANCE

Delete the entire Section 110.2.3 and replace with the following:

110.2.3 Bonding for Landscape Establishment Period The Contractor shall provide a signed, valid, and enforceable Performance, Warranty, or Maintenance Bond complying with the Contract, to the Department at Final Acceptance.

The bond shall be in the full amount for all Pay Items for work pursuant to Sec 621, Landscape, payable to the “Treasurer - State of Maine,” and on the Department’s forms, on exact copies thereof, or on forms that do not contain any significant variations from the Department’s forms as solely determined by the Department.

The Contractor shall pay all premiums and take all other actions necessary to keep said bond in effect for the duration of the Landscape Establishment Period described in Special Provision 621.0036 - Establishment Period. If the Surety becomes financially insolvent, ceases to be licensed or approved to do business in the State of Maine, or stops operating in the United States, the Contractor shall file new bonds complying with this Section within 10 Days of the date the Contractor is notified or becomes aware of such change.

All Bonds shall be procured from a company organized and operating in the United States, licensed or approved to do business in the State of Maine by the State of Maine Department of Business Regulation, Bureau of Insurance, and listed on the latest Federal Department of the Treasury listing for “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies.”

By issuing a bond, the Surety agrees to be bound by all terms of the Contract, including those related to payment, time for performance, quality, warranties, and the Department’s self-help remedy provided in Section 112.1 - Default to the same extent as if all terms of the Contract are contained in the bond(s).

Regarding claims related to any obligations covered by the bond, the Surety shall provide, within 60 Days of Receipt of written notice thereof, full payment of the entire claim or written notice of all bases upon which it is denying or contesting payment. Failure of the Surety to provide such notice within the 60-day period constitutes the Surety’s waiver of any right to deny or contest payment and the Surety’s acknowledgment that the claim is valid and undisputed.

110 - Indemnification, Bonding and Insurance

Add the following to the end of Section 110, Indemnification, Bonding and Insurance:

Nothing in these Standard Specifications constitutes a waiver of any defense, immunity or limitation of liability that may be available to the Department, or its officers, agents or employees under the Maine Tort Claims Act (Title 14 M.R.S.A. 8101 et seq.), and shall not constitute a waiver of other privileges or immunities that may be available to the Department.

SECTION 202
REMOVING STRUCTURES AND OBSTRUCTIONS

202.02 Removing Buildings Make the following change to the last sentence in the final paragraph, change "...Code of Maine Regulations 401." to "...Department of Environmental Protection Maine Solid Waste Management Rules, 06-096 CMR Ch. 401, Landfill Siting, Design and Operation."

SECTION 203
EXCAVATION AND EMBANKMENT

203.01 Description Under b. Rock Excavation; add the following sentence: "The use of perchlorate is not allowed in blasting operations."

Delete the entire Section 203.041 and replace with the following:

203.041 Salvage of Existing Hot Mix Asphalt Pavement All existing hot mix asphalt pavement designated to be removed under this contract must be salvaged for utilization. Existing hot mix asphalt pavement material shall not be deposited in any waste area or be placed below subgrade in any embankment.

Methods of utilization may be any of the following:

1. Used as a replacement for untreated aggregate surface course on entrances provided the material contains no particles greater than 50 mm [2 in] in any dimension. Payment will be made under Pay Item 411.09, Untreated Aggregate Surface Course or 411.10, Untreated Aggregate Surface Course, Truck Measure. Material shall be placed, shaped, compacted and stabilized as directed by the Resident.

2. Used as the top 3" of gravel. Recycled Asphalt Pavement (RAP) shall be process to 1½" minus and blending will not be allowed. When this method is utilized, a surcharge will not be required

3. Stockpiled at commercial or approved sites for commercial or MaineDOT use.

4. Other approved methods proposed by the Contractor, and approved by the Resident which will assure proper use of the existing hot mix asphalt pavement.

The cost of salvaging hot mix asphalt material will be included for payment under the applicable pay item, with no additional allowances made, which will be full compensation for removing, temporarily stockpiling, and rehandling, if necessary, and utilizing the material in entrances or other approved uses, or stockpiling at an approved site as described above. The material will also be measured and paid for under the applicable Pay Item if it is reused for aggregate in entrances, or other approved uses."

SECTION 502

STRUCTURAL CONCRETE

502.05 Composition and Proportioning; TABLE #1; NOTE #2; third sentence; Change "...alcohol based saline sealer..." to "alcohol based silane sealer...". Add NOTE #6 to Class S Concrete.

502.0502 Quality Assurance Method A - Rejection by Resident Change the first sentence to read: "For an individual subplot with test results failing to meet the criteria in Table #1, or if the calculated pay factor for Air Content is less than 0.80....."

502.0503 Quality Assurance Method B - Rejection by Resident Change the first sentence to read: "For material represented by a verification test with test results failing to meet the criteria in Table #1, the Department will....."

502.0505 Resolution of Disputed Acceptance Test Results Combine the second and third sentence to read: "Circumstances may arise, however, where the Department may"

502.10 Forms and False work

D. Removal of Forms and False work 1., First paragraph; first, second, and third sentence; replace "forms" with "forms and false work"

502.11 Placing Concrete

G. Concrete Wearing Surface and Structural Slabs on Precast Superstructures Last paragraph; third sentence; replace "The temperature of the concrete shall not exceed 24° C [75° F] at the time of placement." with "The temperature of the concrete shall not exceed 24° C [75° F] at the time the concrete is placed in its final position."

502.15 Curing Concrete First paragraph; replace the first sentence with the following; "All concrete surfaces shall be kept wet with clean, fresh water for a curing period of at least 7 days after concrete placing, with the exception of vertical surfaces as provided for in Section 502.10 (D) - Removal of Forms and False work."

Second paragraph; delete the first two sentences.

Third paragraph; delete the entire paragraph which starts "When the ambient temperature...."

Fourth paragraph; delete "approved" to now read "...continuously wet for the entire curing period..."

Fifth paragraph; second sentence; change "...as soon as it is possible to do so without damaging the concrete surface." to "...as soon as possible."

Seventh paragraph; first sentence; change "...until the end of the curing period." to "...until the end of the curing period, except as provided for in Section 502.10(D) - Removal of Forms and False work."

502.19 Basis of Payment First paragraph, second sentence; add "pier nose armor" to the list of items included in the contract price for concrete.

SECTION 503

REINFORCING STEEL

503.06 Placing and Fastening Change the second paragraph, first sentence from: “All tack welding shall be done in accordance with Section 504, Structural Steel.” to “All tack welding shall be done in accordance with AWS D1.4 Structural Welding Code - Reinforcing Steel.”

SECTION 504

STRUCTURAL STEEL

504.09 Facilities for Inspection Add the follow as the last paragraph: “Failure to comply with the above requirements will be consider to be a denial to allow access to work by the Contractor. The Department will reject any work done when access for inspection is denied.”

504.18 Plates for Fabricated Members Change the second paragraph, first sentence from: “...ASTM A 898/A 898 M...” to “...ASTM A 898/A 898 M or ASTM A 435/A 435 M as applicable and...”

504.31 Shop Assembly Add the following as the last sentence: “The minimum assembly length shall include bearing centerlines of at least two substructure units.”

504.64 Non Destructive Testing-Ancillary Bridge Products and Support Structures Change the third paragraph, first sentence from “One hundred percent...” to “Twenty five percent...”

SECTION 535

PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.02 Materials Change “Steel Strand for Concrete Reinforcement” to “Steel Strand.” Add the following to the beginning of the third paragraph; “Concrete shall be Class P conforming to the requirements in this section. 28 day compressive strength shall be as stated on the plans. Coarse aggregate....”

535.05 Inspection Facilities Add the follow as the last paragraph: “If the above requirements are not met, the Contractor shall be considered to be in violation of Standard Specification 104.2.5 – Right to Inspect Work. All work occurring during a violation of this specification will be rejected.”

535.26 Lateral Post-Tensioning Replace the first paragraph; “A final tension...” with “Overstressing strands for setting losses cannot be accomplished for chuck to chuck lengths of 7.6 m [25 ft] and less. In such instances, refer to the Plans for all materials and methods. Otherwise, post-tensioning shall be in accordance with PCI standards and shall provide the anchorage force noted in the Plans. The applied jacking force shall be no less than 100% of the design jacking force.”

SECTION 603

PIPE CULVERTS AND STORM DRAINS

603.0311 Corrugated Polyethylene Pipe for Option III Replace the Minimum Mandrel Diameter Table with the following:

Nominal Size	Minimum Mandrel	Nominal Size	Minimum Mandrel
US Customary (in)	Diameter (in)	Metric (mm)	Diameter (mm)

12	11.23	300	280.73
15	14.04	375	350.91
18	16.84	450	421.09
24	22.46	600	561.45
30	28.07	750	701.81
36	33.69	900	842.18
42	39.30	1050	982.54
48	44.92	1200	1122.90

SECTION 604
MANHOLES, INLETS, AND CATCH BASINS

604.02 Materials Add the following:

“Tops and Traps	712.07
Corrugated Metal Units	712.08
Catch Basin and Manhole Steps	712.09”

SECTION 605
UNDERDRAINS

605.05 Underdrain Outlets Make the following change:

In the first paragraph, second sentence, delete the words “metal pipe”.

SECTION 606
GUARDRAIL

606.02 Materials Delete the entire paragraph which reads “The sole patented supplier of multiple mailbox...” and replace with “Acceptable multiple mailbox assemblies shall be listed on the Department’s Approved Products List and shall be NCHRP 350 tested and approved.” Delete the entire paragraph which reads “Retroreflective beam guardrail delineators...” and replace with “Reflectorized sheeting for Guardrail Delineators shall meet the requirements of Section 719.01 - Reflective Sheeting. Delineators shall be fabricated from high-impact, ultraviolet and weather resistant thermoplastic.

606.09 Basis of Payment First paragraph; delete the second and third sentence in their entirety and replace with “Butterfly-type guardrail reflectorized delineators shall be mounted on all W-beam guardrail at an interval of every 10 posts [62.5 ft] on tangents sections and every 5 posts [31.25 ft] on curved sections as directed by the Resident. On divided highways, the delineators shall be yellow on the left hand side and silver/white on the right hand side. On two-way roadways, the delineators shall be silver/white on the right hand side. All delineators shall have retroreflective sheeting applied to only the traffic facing side. Reflectorized guardrail delineators will not be paid for directly, but will be considered incidental to the guardrail items.”

SECTION 609
CURB

609.04 Bituminous Curb f., Delete the requirement “Color Natural (White)”

SECTION 610
STONE FILL, RIPRAP, STONE BLANKET,
AND STONE DITCH PROTECTION

Add the following paragraph to Section 610.02:

“Materials shall meet the requirements of the following Sections of Special Provision 703:

Stone Fill	703.25
Plain and Hand Laid Riprap	703.26
Stone Blanket	703.27
Heavy Riprap	703.28
Definitions	703.32”

Add the following paragraph to Section 610.032.a.

“Stone fill and stone blanket shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source.”

Add the following paragraph to Section 610.032.b:

“Riprap shall be placed on the slope in a well-knit, compact and uniform layer. The surface stones shall be chinked with smaller stone from the same source.”

Add the following to Section 610.032: “Section 610.032.d. The grading of riprap, stone fill, stone blanket and stone ditch protection shall be determined by the Resident by visual inspection of the load before it is dumped into place, or, if ordered by the Resident, by dumping individual loads on a flat surface and sorting and measuring the individual rocks contained in the load. A separate, reference pile of stone with the required gradation will be placed by the Contractor at a convenient location where the Resident can see and judge by eye the suitability of the rock being placed during the duration of the project. The Resident reserves the right to reject stone at the job site or stockpile, and in place. Stone rejected at the job site or in place shall be removed from the site at no additional cost to the Department.”

SECTION 615
LOAM

615.02 Materials Make the following change:

<u>Organic Content</u>	<u>Percent by Volume</u>
Humus	“5% - 10%”, as determined by Ignition Test

SECTION 618
SEEDING

618.01 Description Change the first sentence to read as follows: “This work shall consist of furnishing and applying seed” Also remove “,and cellulose fiber mulch” from 618.01(a).

618.03 Rates of Application In 618.03(a), remove the last sentence and replace with the following: “These rates shall apply to Seeding Method 2, 3, and Crown Vetch.”

In 618.03(c) “1.8 kg [4 lb]/unit.” to “1.95 kg [4 lb]/unit.”

618.09 Construction Method In 618.09(a) 1, sentence two, replace “100 mm [4 in]” with “25 mm [1 in] (Method 1 areas) and 50 mm [2 in] (Method 2 areas)”

618.15 Temporary Seeding Change the Pay Unit from Unit to Kg [lb].

SECTION 620 GEOTEXTILES

620.03 Placement Section (c)

Title: Replace “Non-woven” in title with “Erosion Control”.

First Paragraph: Replace first word “Non-woven” with “Woven monofilament”.

Second Paragraph: Replace second word “Non-woven” with “Erosion Control”.

620.07 Shipment, Storage, Protection and Repair of Fabric Section (a)

Replace the second sentence with the following: “Damaged geotextiles, as identified by the Resident, shall be repaired immediately.”

620.09 Basis of Payment

Pay Item 620.58: Replace “Non-woven” with “Erosion Control”

Pay Item 620.59: Replace “Non-woven” with “Erosion Control”

SECTION 621 LANDSCAPING

621.0036 Establishment Period In paragraph 4 and 5, change “time of Final Acceptance” to “end of the period of establishment”. In Paragraph 7, change “Final Acceptance date” to “end of the period of establishment” and change “date of Final Acceptance” to “end of the period of establishment”.

SECTION 626 HIGHWAY SIGNING

626.034 Concrete Foundations Add to the following to the end of the second paragraph: “Pre-cast and cast-in-place foundations shall be warranted against leaning and corrosion for two years after the project is completed. If the lean is greater than 2 degrees from normal or the foundation is spalling within the first two years, the Contractor shall replace the foundation at no extra cost.”

SECTION 627 PAVEMENT MARKINGS

627.10 Basis of Payment Add to the following to the end of the third paragraph: “If allowed by Special Provision, the Contractor may utilize Temporary Bi-Directional Yellow and White(As required) Delineators as temporary pavement marking lines and paid for at the contract lump sum price. Such payment will include as many applications as required and removal.”

SECTION 637 DUST CONTROL

637.06 Basis of Payment Add the following after the second sentence of the third paragraph: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 637 and/or the Contractor’s own Soil Erosion and Pollution Control Plan concerning Dust Control and/or the Contractor’s own Traffic Control Plan concerning Dust Control and/or visible evidence of excessive dust problems, as determined by the Resident, will result in a reduction in payment, computed by reducing the Lump Sum Total by 5% per occurrence per day. The Department’s Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Additional penalties may also be assessed in accordance with Special Provision 652 - Work Zone Traffic Control and Standard Specification 656 - Temporary Soil Erosion and Water Pollution Control.”

SECTION 639 ENGINEERING FACILITIES

639.04 Field Offices Change the forth to last paragraph from: “The Contractor shall provide a fully functional desktop copier...” to “....desktop copier/scanner...”

Description Change “Floor Area” to “Floor Area (Outside Dimension)”. Change Type B floor area from “15 (160)” to “20 (217)”.

639.09 Telephone Paragraph 1 is amended as follows:
“The contractor shall provide **two** telephone lines and two telephones,....”

Add- “In addition the contractor will supply one computer broadband connection, modem lease and router. The router shall have wireless access and be 802.11n or 802.11g capable and wireless. The type of connection supplied will be contingent upon the availability of services (i.e. DSL or Cable Broadband). It shall be the contractor’s option to provide dynamic or static IP addresses through the service. **The selected service will have a minimum downstream connection of 1.5 Mbps and 384 Kbps upstream.** The contractor shall be responsible for the installation charges and all reinstallation charges following suspended periods. Monthly service and maintenance charges shall be billed by the Internet Service Provider (ISP) directly to the contractor.”

SECTION 652 MAINTENANCE OF TRAFFIC

652.2.3 Flashing Arrow Board Delete the existing 5 paragraphs and replace with the following:

Flashing Arrow Panels (FAP) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels.

FAP units shall meet requirements of the current Manual on Uniform Traffic Control Devices (MUTCD) for Type "C" panels as described in Section 6F.56 - Temporary Traffic Control Devices. An FAP shall have matrix of a minimum of 15 low-glare, sealed beam, Par 46 elements capable of either flashing or sequential displays as well as the various operating modes as described in the MUTCD, Chapter 6-F. If an FAP consisting of a bulb matrix is used, each element should be recess-mounted or equipped with an upper hood of not less than 180 degrees. The color presented by the elements shall be yellow.

FAP elements shall be capable of at least a 50 percent dimming from full brilliance. Full brilliance should be used for daytime operation and the dimmed mode shall be used for nighttime operation. FAP shall be at least 2.4 M x 1.2 M [96" x 48"] and finished in non-reflective black. The FAP shall be interpretable for a distance not less than 1.6 km [1 mile].

Operating modes shall include, flashing arrow, sequential arrow, sequential chevron, flashing double arrow, and flashing caution. In the three arrow signals, the second light from the arrow point shall not operate.

The minimum element on-time shall be 50 percent for the flashing mode, with equal intervals of 25 percent for each sequential phase. The flashing rate shall be not less than 25 nor more than 40 flashes per minute. All on-board circuitry shall be solid state.

Primary power source shall be 12 volt solar with a battery back-up to provide continuous operation when failure of the primary power source occurs, up to 30 days with fully charged batteries. Batteries must be capable of being charged from an onboard 110 volt AC power source and the unit shall be equipped with a cable for this purpose.

Controller and battery compartments shall be enclosed in lockable, weather-tight boxes. The FAP shall be mounted on a pneumatic-tired trailer or other suitable support for hauling to various locations, as directed. The minimum mounting height of an arrow panel should be 2.1 M [7 feet] from the roadway to the bottom of the panel.

The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers.

A portable changeable message sign may be used to simulate an arrow panel display."

652.2.4 Other Devices Delete the last paragraph and add the following:

"652.2.5 Portable Changeable Message Sign Trailer mounted Portable Changeable Message Signs (PCMS) must be of a type that has been submitted to AASHTO's National Transportation Product Evaluation Program (NTPEP) for evaluation and placed on the Maine Department of Transportations' Approved Products List of Portable Changeable Message Signs & Flashing Arrow Panels. The PCMS unit shall meet or exceed the current specifications of the Manual on Uniform Traffic Control Devices (MUTCD), 6F.55.

The front face of the sign should be covered with a low-glare protective material. The color of the LED elements shall be amber on a black background. The PCMS should be visible from a distance of 0.8 km [0.5 mile] day and night and have a minimum 15° viewing angle. Characters must be legible from a distance of at least 200 M [650 feet].

The message panel should have adjustable display rates (minimum of 3 seconds per phase), so that the entire message can be read at least twice at the posted speed, the off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed. Each message shall consist of either one or two phases. A phase shall consist of up to eight characters per line. The unit must be capable of displaying at least three lines of text with eight characters per line. Each character shall be 457 mm [18"] high. Each character module shall use at least a five wide and seven high pixel matrix. The text of the messages shall not scroll or travel horizontally or vertically across the face of the sign.

Units shall automatically adjust their brightness under varying light conditions to maintain legibility.

The control system shall include a display screen upon which messages can be reviewed before being displayed on the message sign. The control system shall be capable of maintaining memory when power is unavailable. Message must be changeable with either a notebook computer or an on-board keypad. The controller shall have the capability to store a minimum of 200 user-defined and 200 pre-programmed messages. Controller and battery compartments shall be enclosed in lockable, weather-tight boxes.

PCMS units shall have the capability of being made programmable by means of wireless communications. PCMS units shall also be fully capable of having an on-board radar system installed if required for a particular application.

PCMS' primary power source shall be solar with a battery back-up to provide continuous operation when failure of the primary power source occurs. Batteries must be capable of being charged from a 110 volt AC power source. The unit must also be capable of being operated solely from a 110 volt AC power source and be equipped with a cable for this purpose.

The PCMS shall be mounted on a trailer in such a way that the bottom of the message sign panel shall be a minimum of 2.1 M [7 ft] above the roadway in urban areas and 1.5 M [5 ft] above the roadway in rural areas when it is in the operating mode. PCMS trailers should be of a heavy duty type with a 51 mm [2"] ball hitch and a minimum of four leveling jacks (at each corner). The sign shall be capable of being rotated 360° relative to the trailer. The face of the trailer shall be delineated on a permanent basis by affixing retro-reflective material, known as conspicuity material, in a continuous line as seen by oncoming drivers."

652.3.3 Submittal of Traffic Control Plan In item e. change "A list of all certified flaggers..." to "A list of all the Contractor's certified flaggers..."

Change a. in the list of requirements to: "a. The name, telephone number, and other contact numbers (cellular phone, pager, if any) of the Contractor's Traffic Control Supervisor (the person with overall responsibility for following the TCP), who has received Work Zone Traffic Control Training commensurate with the level of responsibility shown in the requirements of

the Contract, and who is empowered to immediately resolve any work zone traffic control deficiencies or issues. Provide documentation that the Traffic Control Supervisor has completed a Work Zone Traffic Control Training Course (AGC, ATSSA, or other industry-recognized training), and a Supervisory refresher training every 5 years thereafter. Submit the course name, training entity, and date of training.

Traffic Control Training Course curriculum must be based on the standards and guidelines of the MUTCD and must include, at a minimum, the following:

1. Parts of Temporary Traffic Control Zone
2. Appropriate use and spacing of signs
3. Use and spacing of channelizing devices
4. Flagging basics
5. Typical examples and applications

The Traffic Control Supervisor, or designee directly overseeing physical installation, adjustment, and dismantling of work zone traffic control, will ensure all personnel performing those activities are trained to execute the work in a safe and proper manner, in accordance with their level of decision-making and responsibility.”

Add the follow to the list of requirements: “k. The plan for unexpected nighttime work along with a list of emergency nighttime equipment available on-site.”

In the last paragraph add the following as the second sentence: “The Department will review and provide comments to the Contractor within 14 days of receipt of the TCP.” Add the following as the last sentence: “The creation and modification of the TCP will be considered incidental to the related 652 items.”

652.3.5 Installation of Traffic Control Devices In the first paragraph, first sentence; change “Signs shall be erected...” to “Portable signs shall be erected..” In the third sentence; change “Signs must be erected so that the sign face...” to “Post-mounted signs must also be erected so that the sign face...”

652.4 Flaggers Replace the first paragraph with the following; “The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer. Flaggers shall wear safety apparel meeting ANSI 107-2004 Class 2 risk exposure that clearly identifies the wearer as a person, and is visible at a minimum distance of 300 m [1000 ft], and shall wear a hardhat with 360° retro-reflectivity. For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, shall be worn along with a hardhat with 360° retro-reflectivity. Retro-reflective or flashing SLOW/STOP paddles shall be used, and the flagger station shall be illuminated to assure visibility in accordance with 652.6.2.”

Second paragraph, first sentence; change “...have sufficient distance to stop before entering the workspace.” to “...have sufficient distance to stop at the intended stopping point.” Third sentence; change “At a spot obstruction...” to “At a spot obstruction with adequate sight distance,...”

Fourth paragraph, delete and replace with “Flaggers shall be provided as a minimum, a 10 minute break, every 2 hours and a 30 minute or longer lunch period away from the work

station. Flaggers may only receive 1 unpaid break per day; all other breaks must be paid. Sufficient certified flaggers shall be available onsite to provide for continuous flagging operations during break periods. If the flaggers are receiving the appropriate breaks, breaker flagger(s) shall be paid starting 2 hours after the work begins and ending 2 hours before the work ends. A maximum of 1 breaker per 6 flaggers will be paid. (1 breaker flagger for 2 to 6 flaggers, 2 breaker flaggers for 7 to 12 flaggers, etc)”

Add the following:

“652.5.1 Rumble Strip Crossing When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for 7 calendar days or less, the Contractor shall install warning signs that read “RUMBLE STRIP CROSSING” with a supplemental Motorcycle Plaque, (W8-15P).

When lane shifts or lane closures require traffic to cross a permanent longitudinal rumble strip for more than 7 calendar days, the Contractor shall pave in the rumble strips in the area that traffic will cross, unless otherwise directed by the Resident. Rumble strips shall be replaced prior to the end of the project, when it is no longer necessary to cross them.”

652.6 Nightwork Delete this section entirely and replace with the following:

“652.6.1 Daylight Work Times Unless otherwise described in the Contract, the Contractor is allowed to commence work and end work daily according to the Sunrise/Sunset Table at: <http://www.sunrisesunset.com/usa/Maine.asp> . If the Project town is not listed, the closest town on the list will be used as agreed at the Preconstruction Meeting. Any work conducted before sunrise or after sunset will be considered Night Work.

652.6.2 Night Work When Night Work occurs (either scheduled or unscheduled), the Contractor shall provide and maintain lighting on all equipment and at all work stations.

The lighting facilities shall be capable of providing light of sufficient intensity to permit good workmanship, safety and proper inspection at all times. The lighting shall be cut off and arranged on stanchions at a height that will provide perimeter lighting for each piece of equipment and will not interfere with traffic, including commercial vehicles, approaching the work site from either direction.

The Contractor shall have available portable floodlights for special areas.

The Contractor shall utilize padding, shielding or other insulation of mechanical and electrical equipment, if necessary, to minimize noise, and shall provide sufficient fuel, spare lamps, generators, etc. to maintain lighting of the work site.

The Contractor shall submit, as a subset of the Traffic Control Plan, a lighting plan at the Preconstruction Conference, showing the type and location of lights to be used for night work. The Resident may require modifications be made to the lighting set up in actual field conditions.

Prior to beginning any Night Work, the Contractor shall furnish a light meter for the Residents use that is capable of measuring the range of light levels from 5 to 20 foot-candles.

Horizontal illumination, for activities on the ground, shall be measured with the photometer parallel to the road surface. For purposes of roadway lighting, the photometer is placed on the pavement. Vertical illumination, for overhead activities, shall be measured with the photometer perpendicular to the road surface. Measurements shall be taken at the height and location of the overhead activity.

Night Work lighting requirements:

Mobile Operations: For mobile-type operations, each piece of equipment (paver, roller, milling machine, etc) will carry indirect (i.e. balloon type) lights capable of producing at least 10 foot-candles of lighting around the work area of the equipment.

Fixed Operations: For fixed-type operations (flaggers, curb, bridge, pipes, etc.), direct (i.e. tower) lighting will be utilized capable of illuminating the work area with at least 10 foot-candles of light.

Hybrid Operations: For hybrid-type operations (guardrail, sweeping, Inslope excavation, etc.), either direct or indirect lighting may be utilized. The chosen lights must be capable of producing at least 10 foot-candles of light around the work area of the equipment

Inspection Operations: Areas required to be inspected by the Department will require a minimum of 5 foot-candles of lighting. This may be accomplished through direct or indirect means.

All workers shall wear safety apparel labeled as meeting the ANSI 107-2004 standard performance for Class 3 risk exposure.

The Contractor shall apply 2- inch wide retro-reflective tape, with alternating red and white segments, to outline the front back and sides of construction vehicles and equipment, to define their shape and size to the extent practicable. Pickup trucks and personal vehicles are exempt from this requirement. The Contractor shall furnish approved signs reading "Construction Vehicle - Keep Back" to be used on trucks hauling to the project when such signs are deemed necessary by the Resident. The signs shall be a minimum of 30 inches by 60 inches, Black and Orange, ASTM D 4956 - Type VII, Type VIII, or Type IX (prismatic).

All vehicles used on the project, including pickup trucks and personal vehicles, shall be equipped with amber flashing lights, visible from both front and rear, or by means of single, approved type, revolving, flashing or strobe lights mounted so as to be visible 360°. The vehicle flashing system shall be in continuous operation while the vehicle is on any part of the project.

The Resident or any other representative of the Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item. Failure to follow the approved Lighting Plan will result in a Traffic Control violation.

Payment for lighting, vehicle mounted signs and other costs accrued because of night work will not be made directly but will be considered incidental to the related contract items.”

652.8.2 Other Items Replace the first paragraph with the following: “The accepted quantities of flagger hours will be paid for at the contract unit price per hour for each flagging station occupied excluding lunch breaks, and for each approved breaker flagger. Overtime hours, as reported on the certified payrolls, will be paid an additional 30% of the bid price for 652.38. The computation and additional payment for overtime hours will occur during the project close-out process and will be paid as additional hours of 652.38 to the nearest ¼ hour. The contract unit price shall be full compensation for hiring, transporting, equipping, supervising, and the payment of flaggers and all overhead and incidentals necessary to complete the work.” Replace the last paragraph with the following: “There will be no payment made under any 652 pay items after the expiration of the adjusted total contract time.”

SECTION 653
POLYSTYRENE PLASTIC INSULATION

653.05 Placing Backfill In the second sentence; change “...shall be not less than 150 mm [6 in] loose measure.” to “...shall be not less than 250 mm [10 in] loose measure.” In the third sentence; change “...crawler type bulldozer of not more than 390 kg/m² [80 lb/ft²] ground contact pressure...” to “...crawler type bulldozer of not more than 4875 kg/m² [2000 lb/ft²] ground contact pressure...”

653.06 Compaction In the last sentence; change “...not more than 390 kg/m² [80 lb/ft²] ground contact...” to “...not more than 4875 kg/m² [2000 lb/ft²] ground contact...”

SECTION 656
TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.1 If Pay Item 656.75 Provided Replace the second paragraph with the following: “Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 and/or the Contractor’s own Soil Erosion and Water Pollution Control Plan (SEWPCP) will result in a violation letter and a reduction in payment as shown in the schedule below. The Department’s Resident or any other representative of The Department reserves the right to suspend the work at any time and request a meeting to discuss violations and remedies. The Department shall not be held responsible for any delay in the work due to any suspension under this item.

ORIGINAL CONTRACT AMOUNT

<u>From</u> <u>More Than</u>	<u>Up to and</u> <u>Including</u>	<u>Amount of Penalty Damages per Violation</u>		
		<u>1st</u>	<u>2nd</u>	<u>3rd & Subsequent</u>
\$0	\$1,000,000	\$250	\$500	\$1,250
\$1,000,000	\$2,000,000	\$500	\$1,000	\$2,500
\$2,000,000	\$4,000,000	\$1,000	\$2,000	\$5,000
\$4,000,000	and more	\$2,000	\$4,000	\$10,000”

SECTION 701
STRUCTURAL CONCRETE RELATED MATERIALS

701.10 Fly Ash - Chemical Requirements Change all references from “ASTM C311” to “ASTM C114”.

SECTION 703 AGGREGATES

703.05 Aggregate for Sand Leveling Change the percent passing the 9.5 mm [3/8 in] sieve from “85 – 10” to “85 – 100”

703.06 Aggregate for Base and Subbase Delete the first paragraph: “The material shall have...” and replace with “The material shall have a minimum degradation value of 15 as determined by Washington State DOT Test Method T113, Method of Test for Determination of Degradation Value (January 2009 version), except that the reported degradation value will be the result of testing a single specimen from that portion of a sample that passes the 12.5 mm [½ in] sieve and is retained on the 2.00 mm [No. 10] sieve, minus any reclaimed asphalt pavement used.”

703.18 Common Borrow Replace the first paragraph with the following: “Common borrow shall consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or previously contaminated by chemical, radiological, or biological agents unless the material is from a DOT project and authorized by DEP for use.”

703.22 Underdrain Backfill Material Change the first paragraph from “...for Underdrain Type B...” to “...for Underdrain Type B and C...”

Replace subsections 703.25 through 703.28 with the following:

“703.25 Stone Fill Stones for stone fill shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for stone fill shall be angular and rough. Rounded, subrounded, or long thin stones will not be allowed. Stone for stone fill may be obtained from quarries or by screening oversized rock from earth borrow pits. The maximum allowable length to thickness ratio will be 3:1. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (500 lbs) shall have a maximum dimension of approximately 36 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension of 12 inches (200 lbs).

703.26 Plain and Hand Laid Riprap Stone for riprap shall consist of hard, sound durable rock that will not disintegrate by exposure to water or weather. Stone for riprap shall be angular and rough. Rounded, subrounded or long thin stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (10 lbs) shall have an average dimension of 5 inches. The maximum stone size (200 lbs) shall have an average dimension of approximately 12 inches. Larger stones may be used if approved by the Resident. Fifty percent of the stones by volume shall have an average dimension greater than 9 inches (50 lbs).

703.27 Stone Blanket Stones for stone blanket shall consist of sound durable rock that will not disintegrate by exposure to water or weather. Stone for stone blanket shall be angular and rough. Rounded or subrounded stones will not be allowed. Stones may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (300 lbs) shall have minimum dimension of 14 inches, and the maximum stone size (3000 lbs) shall have a maximum dimension of approximately 66 inches. Fifty percent of the stones by volume shall have average dimension greater than 24 inches (1000 lbs).

703.28 Heavy Riprap Stone for heavy riprap shall consist of hard, sound, durable rock that will not disintegrate by exposure to water or weather. Stone for heavy riprap shall be angular and rough. Rounded, subrounded, or thin, flat stones will not be allowed. The maximum allowable length to width ratio will be 3:1. Stone for heavy riprap may be obtained from quarries or by screening oversized rock from earth borrow pits. The minimum stone size (500 lbs) shall have minimum dimension of 15 inches, and at least fifty percent of the stones by volume shall have an average dimension greater than 24 inches (1000 lbs).”

Add the following paragraph:

“703.32 Definitions (ASTM D 2488, Table 1).

Angular: Particles have sharp edges and relatively plane sides with unpolished surfaces

Subrounded: Particles have nearly plane sides but have well-rounded corners and edges

Rounded: Particles have smoothly curved sides and no edges”

SECTION 706

NON-METALLIC PIPE

706.06 Corrugated Polyethylene Pipe for Underdrain, Option I and Option III Culvert Pipe

Change the first sentence from “...300 mm diameters to 900 mm” to “...300 mm diameters to 1200 mm” Delete, in its’ entirety, the last sentence which begins “This pipe and resins...” and replace with the following; “Manufacturers of corrugated polyethylene pipe must participate in, and maintain compliance with, AASHTO's National Transportation Product Evaluation Program (www.ntpep.org) which audits producers of plastic pipe. A certificate of compliance must be provided with each shipment.”

SECTION 708

PAINTS AND PRESERVATIVES

708.03 Pavement Marking Paint Change the first sentence from “...AASHTO M248” to “...the Maine DOT Maintenance Fast-Dry Water-Based Traffic Paint on file at the Traffic Section in Augusta”. Delete, in its’ entirety, the last sentence.

SECTION 709

REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.03 Steel Strand Change the second paragraph from “...shall be 12mm [$\frac{1}{2}$ inch] AASHTO M203M/M203 (ASTM A416/A416M)...” to “...shall be 15.24 mm [0.600 inch] diameter AASHTO M203 (ASTM A416)...”

SECTION 710

FENCE AND GUARDRAIL

710.03 Chain Link Fabric Add the following sentence: “Chain Link fabric for PVC coated shall conform to the requirements of AASHTO M181, Type IV-Class B.”

710.04 Metal Beam Rail Replace with the following: “Galvanized steel rail elements shall conform to the requirements of AASHTO M 180, Class A, Type II.

When corrosion resistant steel is specified, rail shall conform to AASHTO M 180, Class A, Type IV. Beams of corrosion resistant steel shall not be painted or galvanized. They shall be so handled and stored that the traffic face of these beams, used in a continuous run of guardrail, shall not show a distinctive color differential.

When metal beam rail is to be installed on a curve having a radius of curvature of 150 ft. or less, the beam sections shall be fabricated on an arc to the required radius and permanently stamped or embossed with the designated radius.

The engineer may take one piece of guardrail, a backup plate, and end or buffer section from each 200 pieces in a lot, or from each lot if less than 200 pieces are included therein for determination of compliance with specification requirements. If one piece fails to conform to the requirements of this specification, two other pieces shall be tested. If either of these pieces fails to conform to the requirements of this specification, the lot of material represented by these samples shall be rejected. A lot shall be considered that quantity of material offered for inspection at one time that bears the same heat and coating identification.”

710.07 Guardrail Posts Section b. change “...AASHTO M183/M183M...” to “...AASHTO M 270M/M 270 Grade 250 (36)...”

SECTION 712 MISCELLANEOUS HIGHWAY MATERIALS

712.04 Stone Curbing and Edging Delete the existing and replace with the following: “Stone for curbing and edging shall be approved granite from acceptable sources. The stone shall be hard and durable, predominantly gray in color, free from seams that would be likely to impair its structural integrity, and of a smooth splitting character. Natural grain size and color variations characteristic of the source deposit will be permitted. Such natural variations may include bands or clusters of mineral crystallization provided they do not impair the structural integrity of the curb stone. The Contractor shall submit for approval the name of the quarry that is the proposed source of the granite for curb materials along with full scale color photos of the granite. Such submission shall be made sufficiently in advance of ordering so that the Resident may have an opportunity to judge the stone, both as to quality and appearance. Samples of curbing shall be submitted for approval only when requested by the Resident. The dimensions, shape, and other details shall be as shown on the plans.”

712.06 Precast Concrete Units In the first paragraph, change “...ASTM C478M...” to “...AASHTO M199...” Delete the second paragraph and replace with the following; “Approved structural fibers may be used as a replacement of 6 x 6 #10 gauge welded wire fabric when used at an approved dosage rate for the construction of manhole and catch basin units. The material used shall be one of the products listed on the Maine Department of Transportation’s Approved Product List of Structural Fiber Reinforcement.” Delete the fifth

paragraph and replace with the following; “The concrete mix design shall be approved by the Department. Concrete shall contain 6% air content, plus or minus 1½% tolerance when tested according to AASHTO T152. All concrete shall develop a minimum compressive strength of 28 MPa [4000 psi] in 28 days when tested according to AASHTO T22. The absorption of a specimen, when tested according to AASHTO T280, Test Method “A”, shall not exceed nine percent of the dry mass.”

Add the following:

“712.07 Tops, and Traps These metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials.

Gray iron or ductile iron castings shall conform to the requirements of AASHTO M306 unless otherwise designated.”

712.08 Corrugated Metal Units The units shall conform to plan dimensions and the metal to AASHTO M36/M36M. Bituminous coating, when specified, shall conform to AASHTO M190 Type A.

712.09 Catch Basin and Manhole Steps Steps for catch basins and for manholes shall conform to ASTM C478M [ASTM C478], Section 13 for either of the following material:

- (a) Aluminum steps-ASTM B221M, [ASTM B211] Alloy 6061-T6 or 6005-T5.
- (b) Reinforced plastic steps Steel reinforcing bar with injection molded plastic coating copolymer polypropylene. Polypropylene shall conform to ASTM D 4101.

712.23 Flashing Lights Flashing Lights shall be power operated or battery operated as specified.

- (a) Power operated flashing lights shall consist of housing, adapters, lamps, sockets, reflectors, lens, hoods and other necessary equipment designed to give clearly visible signal indications within an angle of at least 45 degrees and from 3 to 90 m [10 to 300 ft] under all light and atmospheric conditions.

Two circuit flasher controllers with a two-circuit filter capable of providing alternate flashing operations at the rate of not less than 50 nor more than 60 flashes per minute shall be provided.

The lamps shall be 650 lumens, 120 volt traffic signal lamps with sockets constructed to properly focus and hold the lamp firmly in position.

The housing shall have a rotatable sun visor not less than 175 mm [7 in] in length designed to shield the lens.

Reflectors shall be of such design that light from a properly focused lamp will reflect the light rays parallel. Reflectors shall have a maximum diameter at the point of contact with the lens of approximately 200 mm [8 in].

The lens shall consist of a round one-piece convex amber material which, when mounted, shall have a visible diameter of approximately 200 mm [8 in]. They shall distribute light

and not diffuse it. The distribution of the light shall be asymmetrical in a downward direction. The light distribution of the lens shall not be uniform, but shall consist of a small high intensity portion with narrow distribution for long distance throw and a larger low intensity portion with wide distribution for short distance throw. Lenses shall be marked to indicate the top and bottom of the lens.

(b) Battery operated flashing lights shall be self-illuminated by an electric lamp behind the lens. These lights shall also be externally illuminated by reflex-reflective elements built into the lens to enable it to be seen by reflex-reflection of the light from the headlights of oncoming traffic. The batteries must be entirely enclosed in a case. A locking device must secure the case. The light shall have a flash rate of not less than 50 nor more than 60 flashes per minute from minus 30 °C [minus 20 °F] to plus 65 °C [plus 150 °F]. The light shall have an on time of not less than 10 percent of the flash cycle. The light beam projected upon a surface perpendicular to the axis of the light beam shall produce a lighted rectangular projection whose minimum horizontal dimension shall be 5 degrees each side of the horizontal axis. The effective intensity shall not have an initial value greater than 15.0 candelas or drop below 4.0 candelas during the first 336 hours of continuous flashing. The illuminated lens shall appear to be uniformly bright over its entire illuminated surface when viewed from any point within an angle of 9 degrees each side of the vertical axis and 5 degrees each side of the horizontal axis. The lens shall not be less than 175 mm [7 in] in diameter including a reflex-reflector ring of 13 mm [½ in] minimum width around the periphery. The lens shall be yellow in color and have a minimum relative luminous transmittance of 0.440 with a luminance of 2854° Kelvin. The lens shall be one-piece construction. The lens material shall be plastic and meet the luminous transmission requirements of this specification. The case containing the batteries and circuitry shall be constructed of a material capable of withstanding abuse equal to or greater than 1.21 mm thick steel [No. 18 U.S. Standard Gage Steel]. The housing and the lens frame, if of metal shall be properly cleaned, degreased and pretreated to promote adhesion. It shall be given one or more coats of enamel which, when dry shall completely obscure the metal. The enamel coating shall be of such quality that when the coated case is struck a light blow with a sharp tool, the paint will not chip or crack and if scratched with a knife will not powder. The case shall be so constructed and closed as to exclude moisture that would affect the proper operation of light. The case shall have a weep hole to allow the escape of moisture from condensation. Photoelectric controls, if provided, shall keep the light operating whenever the ambient light falls below 215 lx [20 foot candles]. Each light shall be plainly marked as to the manufacturer's name and model number.

If required by the Resident, certification as to conformance to these specifications shall be furnished based on results of tests made by an independent testing laboratory. All lights are subject to random inspection and testing. All necessary random samples shall be provided to the Resident upon request without cost to the Department. All such samples shall be returned to the Contractor upon completion of the tests.

712.32 Copper Tubing Copper tubing and fittings shall conform to the requirements of ASTM B88M Type A [ASTM B88, Type K] or better.

712.33 Non-metallic Pipe, Flexible Non-metallic pipe and pipe fittings shall be acceptable flexible pipe manufactured from virgin polyethylene polymer suitable for transmitting liquids intended for human or animal consumption.

712.34 Non-metallic Pipe, Rigid Non-metallic pipe shall be Schedule 40 polyvinylchloride (PVC) that meets the requirement of ASTM D1785. Fittings shall be of the same material.

712.341 Metallic Pipe Metallic pipe shall be ANSI, Standard B36.10, Schedule 40 steel pipe conforming to the requirements of ASTM A53 Types E or S, Grade B. End plates shall be steel conforming to ASTM A36/A36M.

Both the sleeve and end plates shall be hot dip galvanized. Pipe sleeve splices shall be welded splices with full penetration weld before galvanizing.

712.35 Epoxy Resin Epoxy resin for grouting or sealing shall consist of a mineral filled thixotropic, flexible epoxy resin having a pot life of approximately one hour at 10°C [50°F]. The grout shall be an approved product suitable for cementing steel dowels into the preformed holes of curb inlets and adjacent curbing. The sealant shall be an approved product, light gray in color and suitable for coating the surface.

712.36 Bituminous Curb The asphalt cement for bituminous curb shall be of the grade required for the wearing course, or shall be Viscosity Grade AC-20 meeting the current requirements of Subsection 702.01 Asphalt Cement. The aggregate shall conform to the requirements of Subsection 703.07. The coarse aggregate portion retained on the 2.36 mm [No. 8] sieve may be either crushed rock or crushed gravel.

The mineral constituents of the bituminous mixture shall be sized and graded and combined in a composite blend that will produce a stable durable curbing with an acceptable texture.

Bituminous material for curb shall meet the requirements of Section 403 - Hot Bituminous Pavement.

712.37 Precast Concrete Slab Portland cement concrete for precast slabs shall meet the requirements of Section 502 - Structural Concrete, Class A.

The slabs shall be precast to the dimension shown on the plans and cross section and in accordance with the Standard Detail plans for Concrete Sidewalk Slab. The surface shall be finished with a float finish in accordance with Subsection 502.14(c). Lift devices of sufficient strength to hold the slab while suspended from cables shall be cast into the top or back of the slab.

712.38 Stone Slab Stone slabs shall be of granite from an acceptable source, hard, durable, predominantly gray in color, free from seams which impair the structural integrity and be of smooth splitting character. Natural color variations characteristic of the deposit will be permitted. Exposed surfaces shall be free from drill holes or indications of drill holes. The granite slabs in any one section of backslope must be all the same finish.

The granite slabs shall be scabble dressed or sawed to an approximately true plane having no projections or depressions over 13 mm [$\frac{1}{2}$ in] under a 600 mm [2 ft] straightedge or over 25 mm [1 in] under a 1200 mm [4 ft] straightedge. The arris at the intersection of the top surface and exposed front face shall be pitched so that the arris line is uniform throughout the length of the installed slabs. The sides shall be square to the exposed face unless the slabs are to be set on a radius or other special condition which requires that the joints be cut to fit, but in any case shall be so finished that when the stones are placed side by side no space more than 20 mm [$\frac{3}{4}$ in] shall show in the joint for the full exposed height.

Liftpin holes in all sides will be allowed except on the exposed face.

SECTION 717 ROADSIDE IMPROVEMENT MATERIAL

717.03 C. Method #3 - Roadside Mixture #3 Change the seed proportions to the following:

Crown Vetch	25%
Perennial Lupine	25%
Red Clover	12.5%
Annual Rye	37.5%

717.05 Mulch Binder Change the third sentence to read as follows:

“Paper fiber mulch may be used as a binder at the rate of 2.3 kg/unit [5 lb/unit].”

SECTION 720 STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS

720.08 U-Channel Posts Change the first sentence from “..., U-Channel posts...” to “..., Rib Back U-Channel posts...”

SECTION 722 GEOTEXTILES

722.01 Stabilization/Reinforcement Geotextile Add the following to note #3; “The strengths specified in the columns labeled “<50%” and “ \geq 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.02 Drainage Geotextile Add the following to note #3; “The strengths specified in the columns labeled “<50%” and “ \geq 50%” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “<50%” column. Submittals must include the percent elongation at which the material was tested.”

722.01 Erosion Control Geotextile Add the following note to Elongation in the Mechanical Property Table; “The strengths specified in the columns labeled” $<50\%$ ” and “ $\geq 50\%$ ” refer to the elongation at which the geotextile material was tested. For example; if a fabric is tested at 15% elongation then it must meet or exceed the minimum strength shown in the “ $<50\%$ ” column. Submittals must include the percent elongation at which the material was tested.”



DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

RECEIVED FEB 18 2014

REPLY TO
ATTENTION OF

MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY

OFFICE OF ENVIRONMENTAL SERVICES
MAINE DEPT. OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333

CORPS PERMIT # NAE-2013-02705
CORPS PGP ID# 14-001
STATE ID# PBR

DESCRIPTION OF WORK:

Place temporary fill below the ordinary high water line of Ripley Brook at St. George, Maine in order to replace an existing deteriorated culvert beneath Route 131. The work will result in approximately 425 s.f. of temporary stream bed impact and 79 s.f. of permanent stream bed impact. This work is shown on the attached plans entitled "ROUTE 131 STRUT ST. GEORGE, KNOX COUNTY" in two sheets undated and "ST. GEORGE, ROUTE 131 STRUT" in two sheets dated "JAN 2013".
DOT PIN: 19267.00

LAT/LONG COORDINATES: 43.9668664° N -69.2156781° W USGS QUAD: TENANTS HARBOR, ME

I. CORPS DETERMINATION:

Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine General Permit (GP). Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 41 of the GP (page 18) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 12, 2015. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 12, 2016.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.

II. STATE ACTIONS: PENDING [X], ISSUED [], DENIED [] DATE: _____

APPLICATION TYPE: PBR: X, TIER 1: _____, TIER 2: _____, TIER 3: _____, LURC: _____, DMR LEASE: _____, NA: _____

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 1/16/14 LEVEL OF REVIEW: CATEGORY 1: _____ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 _____, 404 X, 10/404 _____, 103 _____

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA_NO _____, USF&WS_NO _____, NMFS_NO _____

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at <http://per2.nwp.usace.army.mil/survey.html>

Jay L. Clement
JAY L. CLEMENT
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

Frank J. Del Giudice
FRANK J. DEL GIUDICE
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION

2-12-14
DATE



**US Army Corps
of Engineers**
New England District

Corps of Engineers Permit No. NAE-2013-02705
Permit Conditions Resulting From
Informal Endangered Species Act Consultation
Between the Corps and the National Marine Fisheries Service ("NMFS")
(Reference NMFS Biological Opinion ("BO") dated "February 3, 2014" and
the Corps Biological Evaluation ("BE") revised "December 20, 2013")

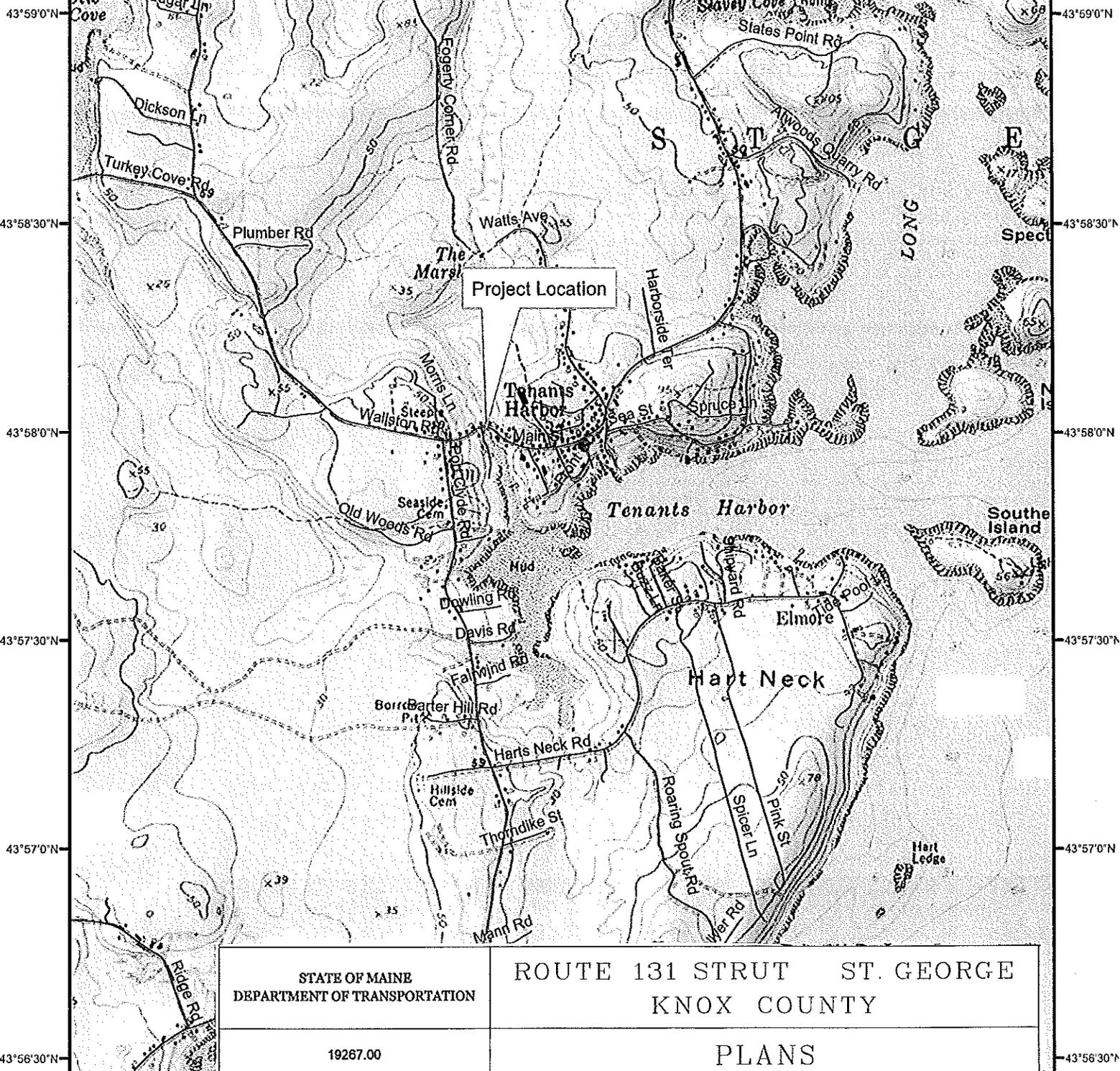
1. The permittee and contractor shall comply with all terms and conditions of this permit and with the permittee's construction plan. Modifications to the approved plan may require re-initiation of Endangered Species Consultation between the Corps and National Marine Fisheries Service and therefore, should not be implemented without first contacting the Corps.
2. The permittee shall hold a pre-construction meeting with appropriate Maine DOT Environmental Office staff, other DOT staff, and the DOT construction crew or contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon, shortnose sturgeon, and Atlantic sturgeon and to emphasize the importance of these measures for protecting Atlantic salmon Critical Habitat. Corps, FHWA, and Service staff will be notified of and attend this meeting as practicable.
4. All instream work will be conducted during low tide, from July 15 to October 1 of any year.
5. The permittee and his contractor(s) shall minimize the potential for effects to Atlantic salmon and their habitat and both sturgeon species by conducting all construction activities for the project in accordance with the Maine DOT - approved Soil Erosion and Water Pollution Control Plan. Instream turbidity will be visually monitored and all erosion controls will be inspected daily to ensure that the measures taken are adequate. If inspection shows that the erosion controls are ineffective, immediate action will be taken to repair, replace, or reinforce controls as necessary.
6. All areas of temporary waterway or wetland fill will be restored to their original contour and character upon completion of the projects.
7. Disturbed areas adjacent to the waterways will be stabilized and re-vegetated with a seed mix appropriate for riparian areas in Maine.
8. All cofferdams shall be removed from the stream immediately following completion of construction, allowing for minor delays due to high stream flows following heavy precipitation, so that fish and other aquatic organism passage is not unnecessarily restricted. If the project is not completed but there will be substantial delays in construction, cofferdams will need to be at least partially removed to allow full passage of fish and other aquatic organisms until construction resumes.
9. 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) must be inspected and 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.
10. The permittee and his contractors shall follow measures designed to avoid and minimize effects to streams from hazardous materials associated with construction activities. These measures include but are not limited to the following:
 - a. All vehicle refueling 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 instream work shall be cleaned of external oil, grease, dirt, and mud. Any leaks or accumulations of these materials would be corrected before entering streams or areas that drain directly to streams or wetlands.
11. A post-project report, confirming completion of construction and the successful application of all terms and conditions of this permit, shall be submitted within four (4) weeks of the project's completion. The report shall include, but not be limited to, a narrative and photos documenting project elements outlined in the construction plan and referenced in these conditions as well as the amount of incidental take of Atlantic salmon. This report may accompany the Compliance Certification Form referenced in Condition 13. Individual findings for each project site are required but the permittee may submit a combined report for all of the projects depending on the timing of each project's construction.
12. Maine DOT shall evaluate fish passage conditions at the replacement culvert structure at St. George within a year after construction. Measurements shall be taken during low tide and low flow, when depths are more likely to be critical, and during high tide and higher flow conditions (e.g., about average annual minimum and average annual), when velocities and/or turbulence are more likely to be critical, in order to sufficiently evaluate fish passage conditions. The Corps and NMFS shall be provided with a summary of findings that provides information regarding depths and velocities in the structure(s) or at the inlet and outlet if culvert size limits access.

The evaluation shall include stream flow measurements and photos of the culvert inlet. Photos shall be taken during the inspection to document characteristics of the culvert inlet(s), outlet(s), bed details, and the stream upstream and downstream from the road surface. Maine DOT staff shall note any channel condition changes, including scour and bedload deposition in the stream above and below the project area. Additionally, they shall assess the characteristics of the substrate deposited in the structure (including type, size, depth, and relative amounts). Velocities and depths will be compared to the results of known swimming capabilities of adult Atlantic salmon.

13. 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. You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals).

14. The permittee shall assure 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 the work. If the permit is issued after construction specifications but before receipt of bids or quotes, the entire permit shall be included as an addendum to the specifications. 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 of Engineers jurisdiction.

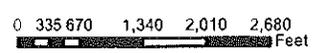
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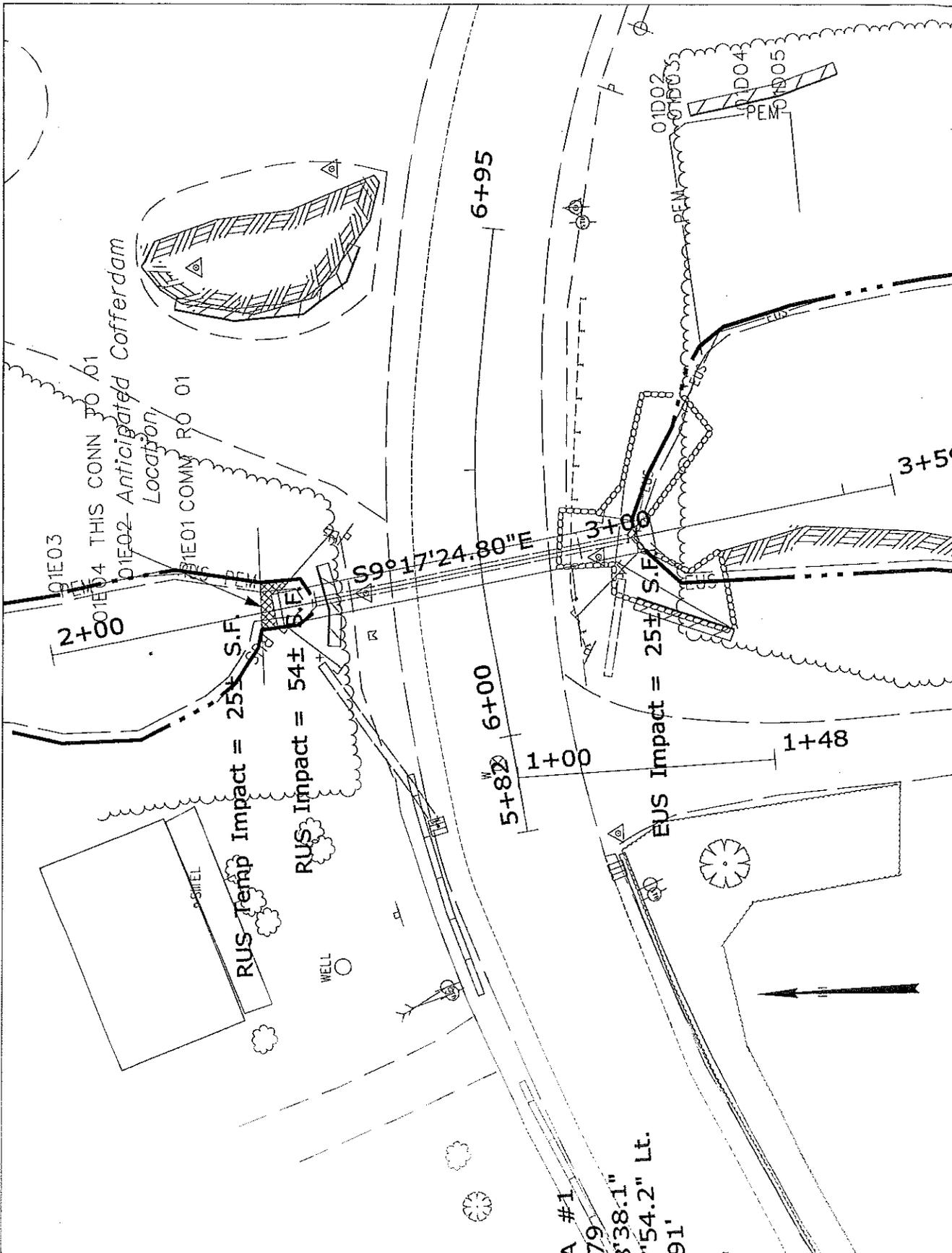


STATE OF MAINE DEPARTMENT OF TRANSPORTATION	ROUTE 131 STRUT ST. GEORGE KNOX COUNTY
19267.00	PLANS

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43.96698

MDOT WIN 19267.00
Saint George Rte 131





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

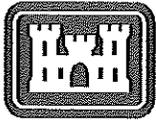
ROUTE 131 STRUT ST. GEORGE
KNOX COUNTY

SHEET NUMBER

1
137
OF 1

19287.CO

PLANS



**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

Permit Number: NAE-2013-02705

Project Manager Clement

Name of Permittee: Maine Dept. of Transportation

Permit Issuance Date: _____

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 *
 * Permits and Enforcement Branch C *
 * 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

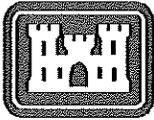
Date

Printed Name

Date of Work Completion

() _____
Telephone Number

() _____
Telephone Number



**US Army Corps
of Engineers** ®
New England District

**GENERAL 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-2013-02705 was issued to the Maine Dept. of Transportation on _____ . This work is located in Ripley Brook at St. George, Maine. The permit authorized the permittee to place temporary fill below the ordinary high water line in order to replace an existing deteriorated culvert beneath Route 131. The work will result in approximately 425 s.f. of temporary stream bed impact and 79 s.f. of permanent stream bed impact.

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: _____ **Date Permit Expires:** _____

FOR USE BY THE CORPS OF ENGINEERS

PM: Clement **Submittals Required:** No

Inspection Recommendation: Inspect as convenient

**DEPARTMENT OF THE ARMY
GENERAL PERMIT
STATE OF MAINE**

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues this General Permit (GP) for activities in waters of the United States (U.S.) that have no more than minimal individual, secondary, and cumulative adverse effects on the aquatic environment in waters of the U.S. within the boundaries of and off the coast of the State of Maine.

I. GENERAL CRITERIA

In order for activities to qualify for this GP, they must meet the GP's terms and eligibility criteria (Pages 1 – 4), general conditions (GC) (Pages 5 – 18), and Appendix A - Definition of Categories.

Under this GP, projects may qualify for the following:

- Category 1: Category 1 Notification Form required.
(Submittal of the Category 1 Notification Form at Appendix B to the Corps is required.)
- Category 2: Application required.
(Submittal of an application to the Corps is required and written approval from the Corps must be received.)

If your project is ineligible for Category 1, it may qualify for Category 2 or an Individual Permit and you must submit an application (see Page 3). The thresholds for Categories 1 and 2 are defined in Appendix A. This GP does not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

II. ACTIVITIES COVERED:

- Work and structures that are located in, under or over any navigable water of the U.S.¹ that affect the course, location, condition, or capacity of such waters; or the excavating from or depositing of material in such waters. The Corps regulates this under Section 10 of the Rivers and Harbors Act of 1899);
- The discharge of dredged or fill material into waters of the U.S.². The Corps regulates this under Section 404 of the Clean Water Act (CWA).³
- The transportation of dredged material for the purpose of disposal in the ocean. The Corps regulates this under Section 103 of the Marine Protection, Research and Sanctuaries Act.

¹ Defined at 33 CFR 329 and Appendix A, Page 4.

² Defined at 33 CFR 328

³ When there is a regulated discharge of dredged or fill material into waters of the U.S., the Corps will also consider secondary impacts, which are defined at Appendix A, Endnote/Definition 2.

III. PROCEDURES:

1. State Approvals

Applicants are responsible for applying for and obtaining any of the required state or local approvals (see GC 1, Page 5). Federal and state jurisdictions may differ in some instances. State permits may be required for specific projects regardless of the general permit category.

In order for authorizations under this GP to be valid, when any of the following state approvals or statutorily-required reviews is also required, the approvals must be obtained prior to the commencement of work in Corps jurisdiction.

- Maine Department of Environmental Protection (DEP): Natural Resources Protection Act (NRPA) permit, including permit-by-rule and general permit authorizations; Site Location of Development Act permit; and Maine Waterway Development and Conservation Act permit.
- Maine Department of Conservation: Land Use Regulation Commission (LURC) permit.
- Maine Department of Marine Resources: Aquaculture Leases.
- Maine Department of Conservation, Bureau of Parks and Lands, Submerged Lands: Lease

NOTE: This GP may authorize projects that are not regulated by the State of Maine (e.g., seasonal floats or moorings).

2. Corps Authorizations

a. Category 1 (Submission of Category 1 Notification Form required)

Eligibility Criteria

Activities in Maine that:

- Are subject to Corps jurisdiction (see GC 2, Page 5),
- Meet the terms and eligibility criteria of this GP (Pages 1 - 4),
- Meet all GCs of this GP (Pages 5 – 18), and
- Meet the definition of Category 1 in Appendix A - Definition of Categories,

may proceed without application to the Corps provided:

- The Category 1 Notification Form (Appendix B) is submitted to the Corps before starting the work authorized by this GP.

Consultation with the Corps and/or outside experts may be necessary to ensure compliance with this GP's general conditions (starting on Page 5) and related federal laws such as the National Historic Preservation Act, the Endangered Species Act (ESA), and the Wild and Scenic Rivers Act. For example, experts on historic resources may include the agencies and tribes referenced in GC 8, while experts on endangered species include the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). Project proponents are encouraged to contact the Corps with Category 1 eligibility questions.

Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, is eligible for Category 1 authorization under this GP. The Maine DEP and LURC have waived WQC for projects authorized under Categories 1 and 2 of this GP. The state has concurred with the determination that projects authorized under Categories 1 and 2 of this GP are consistent with the enforceable policies of the Maine CZM Program.

b. Category 2 (Application to and written approval from the Corps required)

Eligibility Criteria

Activities in Maine that:

- Are subject to Corps jurisdiction (see GC 2, Page 5),
- Meet the terms of this GP (Pages 1 - 4),
- Meet all GCs of this GP (Pages 5 - 18),
- Meet the definition of Category 2 in Appendix A - Definition of Categories,

require an application to and written approval from the Corps. The Corps will coordinate review of Category 2 activities with federal and state agencies, as appropriate. To be eligible and subsequently authorized, an activity must result in no more than minimal impacts to the aquatic environment as determined by the Corps based on comments from the review team and the criteria listed above. This may require project modifications involving avoidance, minimization or compensatory mitigation for unavoidable impacts to ensure the net effects of a project are minimal. Compensatory mitigation for waterway/wetland impacts may take the form of wetland preservation, restoration, enhancement, creation, and/or “in-lieu fee” for inclusion into the Natural Resources Mitigation Fund. See www.nae.usace.army.mil/reg, “Mitigation” and then “Maine” for more information.

Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, is eligible for Category 2 authorization under this GP. The Maine DEP and LURC have waived WQC for projects authorized under Categories 1 and 2 of this GP. The state has concurred with the determination that projects authorized under Categories 1 and 2 of this GP are consistent with the enforceable policies of the Maine CZM Program.

3. Applying for a Permit

All applicants for Category 2 projects must:

- a.** Apply directly to the Corps using the state application form or the Corps application form (ENG Form 4345¹), and apply directly to the state (DEP, LURC, BPL or DMR) as applicable using the appropriate state form, if the work is regulated by the Corps and the state.
- b.** Apply directly to the Corps using the Corps application form (ENG Form 4345¹) if the work is regulated by the Corps but not the state (DEP, LURC, BPL or DMR).
- c.** Provide application information (see “Information Typically Required” in Appendix C) to help ensure the application is complete and to speed project review.
- d.** Submit a copy of their application materials to the Maine Historic Preservation Commission (MHPC) and the five Indian tribes listed at Appendix D, at the same time, or before, they apply to the state (DEP or LURC) or the Corps, to be reviewed for the presence of historic, archaeological or tribal resources in the permit area that the proposed work may affect. Submittals to the DEP or Corps shall include information to indicate that this has been done (a copy of the applicant’s cover letter to MHPC and tribes or a copy of the MHPC and tribal response letters is acceptable).

¹ Located at www.nae.usace.army.mil/reg under “Forms.”

4. Review Procedures

The Corps will coordinate review of all Category 2 activities with federal and state agencies, as appropriate, to ensure that the work will result in no more than a minimal impact to the aquatic environment. Applicants are responsible for applying for the appropriate state and local approvals listed on Page 2.

Emergency Procedures: 33 CFR 325.2(e)4 states that an “emergency” is a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures.” The Corps will work with all applicable agencies to expedite authorization according to established procedures in emergency situations.

Individual Permit Procedures: Proponents of work that does not meet the terms and general conditions of this GP must submit the Corps application form and the appropriate application materials to the Corps at the earliest possible date in order to expedite the Individual Permit review process. General information and application forms can be obtained at our website or by calling us (see Appendix D). Individual WQC and CZM consistency concurrence are required when applicable from the State of Maine before Corps permit issuance. The Corps encourages applicants to concurrently apply for a Corps Individual Permit and state permits.

5. Approval Process

Applicants for Category 2 activities may not proceed with work in Corps jurisdiction until written authorization is received from the Corps. If the Corps determines that the Category 2 activity is eligible for the GP, the Corps will send an authorization letter directly to the applicant. The Corps will attempt to issue a written eligibility determination within the state’s review period. If the Corps determines that the activity is not eligible under the GP or that additional information is required, the Corps will notify the applicant in writing and send a copy to the DEP or LURC. Applicants are responsible for obtaining all applicable approvals listed on Page 2 from the appropriate state and local agencies before commencing work in Corps jurisdiction.

V. GENERAL PERMIT CONDITIONS:

The following conditions apply to activities authorized under this Maine GP, unless otherwise specified, including all Category 1 (notification required) and Category 2 (application required) activities:

1. Other Permits. Authorization under this GP does not obviate the need to obtain other federal, state, or local authorizations required by law. This includes, but is not limited to, the project proponent obtaining a Flood Hazard Development Permit issued by the town, if necessary. Inquiries may be directed to the municipality or to the Maine Floodplain Management Coordinator at (207) 287-8063. See www.maine.gov/spo/flood.

2. Federal Jurisdictional Boundaries.

(a) Applicability of this GP shall be evaluated with reference to federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the federal criteria defined at 33 CFR 328 “Waters of the U.S.” and 33 CFR 329 “Navigable Waters of the U.S.”

Note: Waters of the U.S. include the subcategories “navigable waters of the U.S.” and “wetlands.”

(b) For Category 1 projects, proponents are not required to delineate the waters of the U.S. that they plan to impact, but must approximate the square footage of impacts in order to determine the review category (1 or 2 or Individual Permit). For projects filling <15,000 SF of waters of the U.S. that do not qualify for Category 1 (e.g., vernal pool, secondary or endangered species impacts, etc.) and therefore require an application to the Corps, and for those filling \geq 15,000 SF, applicants shall delineate all waters of the U.S. that will be filled (direct impacts) in accordance with the Corps of Engineers Wetlands Delineation Manual and the most recent regional supplements (see Appendix E). In addition, applicants shall approximately identify all waters of the U.S. on the property and known waters adjacent to the property in order for the Corps to evaluate secondary impacts. The waters of the U.S. shall be clearly shown on the project plans submitted with the application. This includes all waters of the U.S. in areas under DEP or LURC jurisdiction regardless of whether they’re shown on LURC zoning maps.

(c) On a case-by-case basis, the Corps may modify/refine the above delineation and identification requirements for waters of the U.S.

3. Minimal Direct, Secondary and Cumulative Impacts.

(a) Projects authorized by this GP shall have no more than minimal direct, secondary and cumulative adverse environmental impacts. Category 2 applicants should provide information on secondary and cumulative impacts as stated in Appendix C. Compensatory mitigation may be required to offset unavoidable impacts (see GC 16) and to ensure that they are no more than minimal. Compensatory mitigation requirements will be determined on a case-by-case basis.

(b) Secondary impacts to waterway and/or wetland areas, (e.g., areas drained, flooded, cleared, excavated or fragmented) shall be added to the total fill area when determining whether the project qualifies for Category 1 or 2. Direct, secondary and cumulative impacts are defined at Appendix A, Endnote 2.

(c) Site clearing, grading and construction activities in the upland habitat surrounding vernal pools (“Vernal Pool Management Areas”) are secondary impacts. See GC 28 for avoidance and minimization requirements and recommendations.

4. Discretionary Authority. Notwithstanding compliance with the terms and conditions of this permit, the Corps retains discretionary authority to require Category 2 or Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest [33 CFR

320.4(a)]. This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant a higher level of review based on the concerns stated above. This authority may be invoked for projects that may contribute to cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the GP and that warrants greater review. Whenever the Corps notifies an applicant that an Individual Permit may be required, the project is not authorized under this GP and no work may be conducted until an Individual Permit is obtained or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this GP.

5. Single and Complete Projects.

(a) This GP shall not be used to piecemeal work and shall be applied to single and complete projects¹. When determining the review category in Appendix A (Category 1 or 2) for a single and complete project, proponents must include any permanent historic fill placed since October 1995 that is associated with that project and all currently proposed temporary and permanent impact areas.

(b) A single and complete project must have independent utility¹.

(c) Unless the Corps determines the activity has independent utility¹:

i. This GP shall not be used for any activity that is part of an overall project for which an Individual Permit is required,

ii. All components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project¹.

(d) For linear projects, such as power lines or pipelines with multiple crossings, the single and complete project¹ is all crossings of a single water of the U.S. (i.e., single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies and crossings of such features cannot be considered separately. If any crossing requires a Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2.

6. Permit On-Site. For Category 2 projects, the permittee shall ensure that a copy of this GP and the accompanying authorization letter are at the work site (and the project office) authorized by this GP whenever work is being performed, and that all personnel with operation control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by this GP. This shall be achieved by including the entire permit authorization in the specifications for work. The term “entire permit authorization” means this GP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract. 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 contained within the entire GP authorization, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

¹ Single and Complete Project and Independent Utility are defined at Appendix E.

7. St. John/St. Croix Rivers. Work within the Saint John and Saint Croix River basins that requires approval of the International Joint Commission is not eligible for Category 1 and an application to the Corps is required if any temporary or permanent use, obstruction or diversion of international boundary waters could affect the natural flow or levels of waters on the Canadian side of the line; or if any construction or maintenance of remedial works, protective works, dams, or other obstructions in waters downstream from boundary waters could raise the natural level of water on the Canadian side of the boundary.

8. Historic Properties. No activity otherwise authorized by this GP shall result in effects (as that term is defined at 36 C.F.R. § 800.16(i)) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties, unless and until the Corps or another federal agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act. Work is not eligible for Category 1 and an application to the Corps is required if the activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. Work is eligible for Category 1 if a no effect or no adverse effect determination has been made for that work by another federal action agency in its Section 106 consultation with the Maine Historic Preservation Commission (MHPC) and the five federally recognized Indian tribes listed at Appendix D. Information on the location and existence of known historic resources can be obtained from the MHPC, the National Register of Historic Places, and the five tribes listed in Appendix D. Historic properties include those that are eligible for inclusion, but not necessarily listed on the National Register. If the permittee, either prior to construction or during construction of the work authorized herein, encounters a previously unidentified archaeological or other cultural resource within the area subject to Corps jurisdiction that might be eligible for listing in the National Register of Historic Places, he/she shall stop work and immediately notify the Corps and the MHPC and/or applicable tribe(s).

9. National Lands. None of the following work is eligible as a Category 1 project:

(a) Activities that impinge upon the value of any National Wildlife Refuge, National Forest, National Marine Sanctuary, National Park or any other area administered by the National Park Service, U.S. Fish and Wildlife Service (USFWS) or U.S. Forest Service.

(b) Work on Corps properties and Corps-controlled easements. Contact the Corps, Real Estate Division (978) 318-8585 to initiate reviews about both Corps holdings and permit requirements.

(c) Any proposed temporary or permanent modification or use of a federal project (including but not limited to a levee, dike, floodwall, channel, sea wall, bulkhead, jetty, wharf, pier, or other work built but not necessarily owned by the United States), which would obstruct or impair the usefulness of the federal project in any manner, and/or would involve changes to the authorized federal project's scope, purpose, and/or functioning that go beyond minor modifications required for normal operation and maintenance (requires review and approval by the Corps pursuant to 33 USC 408). Federal projects in Maine as of October 2010 are shown at Appendix F. This map may not be inclusive of all projects.

10. Endangered Species.

(a) No activity may be authorized under Category 1 of this GP which:

i. "May affect" a threatened or endangered species, a species proposed for listing as threatened or endangered, or designated or proposed critical habitat (all herein referred to as "listed species or habitat") as identified under the federal Endangered Species Act (ESA) (unless specified in a programmatic agreement with NMFS or USFWS),

- ii. Results in a “take” of any federally-listed threatened or endangered species of fish or wildlife, or
- iii. Results in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants.

(b) Work in Inland Waters and Wetlands¹ and the non-tidal portions of Navigable Waters² (e.g., the Penobscot River, Kennebec River) is not eligible for Category 1 if:

- i. The project action area occurs within a watershed occupied by listed Atlantic salmon or shortnose sturgeon. Project proponents must check the site in Footnote 3 below.
- ii. In areas outside these watersheds contact the USFWS (see Appendix D, Page 1 for contact information) to check for the presence of other listed species.

(c) Work in the tidal portions of Navigable Waters may be eligible for Category 1. Reference Appendix A, II. Navigable Waters, Pages 4 – 9, and the other terms and general conditions (GC 11 is particularly relevant) of this GP to determine Category 1 eligibility. Project proponents must contact the USFWS (see Appendix D, Page 1 for contact information) to ensure that work in all tidal portions of Navigable Waters² is not in critical habitat or areas occupied by listed species other than Atlantic salmon or shortnose sturgeon.

(d) Although some work is excluded from Category 1 as stated in (b) and (c) above, work may qualify for Category 1 if a no effect determination has been made for that work by a federal action agency such as the Corps.

(e) Proponents must submit an application to the Corps if any of the activities in 10(a)-10(c) that do not qualify for Category 1 may occur and provide information on federally-listed species or habitat to allow the Corps to conduct any required consultation under Section 7 of the ESA.

(f) The Corps review may consider species listed as endangered and threatened pursuant to Maine state law.

11. Essential Fish Habitat. Any work in the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration, shall not be authorized under Category 1 of the GP and must be screened for potential impacts to EFH (see Appendix E for more information).

Androscoggin River	Aroostook River	Boyden River	Dennys River
Ducktrap River	East Machias River	Hobart Stream	Kennebec River
Machias River	Narraguagus River	Orland River	Passagassawaukeag River
Patten Stream	Penobscot River	Pleasant River	Presumpscot River
Saco River	Sheepscoot River	St. Croix River	Tunk Stream
			Union River

The above does not apply to the following activities which may qualify for Category 1 work:

- Exploratory drilling and borings for bridges.
- Moorings (see Appendix A, Page 6 for Category 1 thresholds and requirements)
- Structures and floats (see Appendix A, Page 7 for Category 1 thresholds and requirements)
- Other activities specified in a programmatic agreement with NMFS.

¹ See Appendix A, Page 1 for definition.

² See Appendix A, Page 4 for definition.

³ For areas considered occupied by listed Atlantic salmon and/or shortnose sturgeon in Inland Waters and Wetlands, and in Navigable Waters, see: www.nero.noaa.gov/prot_res/altsalmon/dpsmaps.html. Tidal portions of navigable waters occupied by listed Atlantic salmon are more specifically described as those waters from the Kennebec River to its mouth at Merrymeeting Bay, northeast to the Dennys River, including the Androscoggin River upstream to the Brunswick Dam, and other streams northeast of this line to the limit of their tidal reaches.

12. Wild and Scenic Rivers. Any activity that occurs in the designated main stem of, within 0.25 mile up or downstream of the designated main stem of, or in tributaries within .25 miles of the designated main stem of a National Wild and Scenic River, or in “bordering and contiguous wetlands” (see Appendix A, Endnote 1) that are adjacent to the designated main stem of a National Wild and Scenic River, or that has the potential to alter flows within a river within the National Wild and Scenic River System, is not eligible for Category 1 regardless of size of the impacts. This condition applies to both designated Wild and Scenic Rivers and rivers officially designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. National Wild and Scenic Rivers System segments for Maine as of October 2010 include: Allagash River beginning at Telos Dam continuing to Allagash checkpoint at Eliza Hole Rapids, approximately 3 miles upstream of the confluence with the St. John River (length = 92 miles).

13. Federal Navigation Project. Any structure or work that extends closer to the horizontal limits of any Corps Federal Navigation Project (see Appendix F) than a distance of three times the project’s authorized depth shall be subject to removal at the owner’s expense prior to any future Corps dredging or the performance of periodic hydrographic surveys. This is applicable to Category 1 and 2. Reference Appendix A, Page 6 (Mooring) and Page 7 (Structure and Floats).

14. Navigation.

(a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

(b) The permittee understands and agrees that, if future U.S. operations require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

15. 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 U.S. 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.

16. Avoidance, Minimization and Compensatory Mitigation.

Discharges of dredged or fill material into waters of the U.S., including wetlands, shall be avoided and minimized to the maximum extent practicable through consideration of alternatives. The Corps may require compensatory mitigation of unavoidable direct and secondary impacts associated with Category 2 projects on a case-by-case basis (see Appendix E).

17. Heavy Equipment in Wetlands. Operating heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and such equipment shall not be stored, maintained or repaired in wetlands, to the maximum extent practicable. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure

(typically <3 psi), or it shall be placed on swamp/construction/timber mats (herein referred to as “construction mats” and defined at Appendix A, Endnote 4) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging construction mats into position is prohibited. Other support structures that are capable of safely supporting equipment may be used with written Corps authorization (Category 2 authorization or Individual Permit). Similarly, the permittee may request written authorization from the Corps to waive use of mats during frozen, dry or other conditions. An adequate supply of spill containment equipment shall be maintained on site.

18. Temporary Fill.

Temporary fill that qualifies for Category 1 (e.g., <15,000 SF of combined temporary and permanent fill associated with the single and complete project) or is authorized in writing under Category 2, shall adhere to the following:

- (a) All temporary fill shall be stabilized to prevent its eroding into portions of waters of the U.S., including wetlands, where it is not authorized.
- (b) Unconfined temporary fill authorized for discharge into waters of the U.S., including wetlands, shall consist of material that minimizes impacts to water quality (e.g. sandbags, clean gravel, stone, aggregate, etc.).
- (c) Temporary fill authorized for discharge into wetlands should be placed on geotextile fabric or other material (e.g., straw) laid on the pre-construction wetland grade where practicable to minimize impacts.
- (d) Temporary fill shall be removed as soon as it is no longer needed, disposed of at an upland site, and suitably contained to prevent subsequent erosion into waters of the U.S, including wetlands. To qualify for Category 1, temporary fill placed during the:
 - i. Growing season must be removed before the beginning of the next growing season.
 - ii. Non-growing season may remain throughout the following growing season, but must be removed before the beginning of the next growing season.
- (e) Waters of the U.S., including wetlands, where temporary fill was discharged shall be restored (see GC 19).
- (f) Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must be placed in a manner that will not be eroded by expected high flows (see GC 21).
- (g) Construction mats and corduroy roads (see GC 17 above) are considered as temporary fill when they are removed immediately upon work completion. The area must be restored (see GC 19).

19. Work Site Restoration.

- (a) Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.
- (b) Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be properly stabilized. Any seed mix shall contain only plant species native to New England and shall not contain any species listed in the “Invasive and Other Unacceptable Plant Species” Appendix in the “New England District Compensatory Mitigation Guidance” (see Appendix E, Paragraph 6). This list may be updated periodically.
- (c) In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and

not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

20. Bank Stabilization.

(a) Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction shall be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable.

(b) Project proponents must design and construct bank stabilization projects using this sequential minimization process: avoidance of aquatic resource impacts, diversion of overland flow, vegetative stabilization, stone-sloped surfaces, and walls/bulkheads. Vertical walls/bulkheads shall only be used in situations where reflected wave energy can be tolerated. Refer to Appendix E for design guidance.

(c) Inland Water bank stabilization activities necessary for erosion prevention must meet all of the following criteria: (i) No material is placed in excess of the minimum needed for erosion protection; (ii) The activity is no more than 500 feet in length along the bank; (iii) The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark; (iv) Structures angled steeper than 1H:1V and any material other than angular or subangular stone or fiber roll revetments require at least a Category 2 review. (v) The activity does not involve discharges of dredged or fill material into special aquatic sites; (vi) No material is of the type, or is placed in any location, or in any manner, to impair surface water flow into or out of any water of the U.S.; (vii) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and, (viii) The activity is not a stream channelization activity.

(d) Navigable Water bank stabilization activities are provided at Appendix A, Page 4.

21. Sedimentation and Erosion Control.

(a) Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, installation of sediment control barriers (i.e. silt fence, vegetated filter strips, geotextile silt fences, erosion control mixes, hay bales or other devices) downhill of all exposed areas, retention of existing vegetated buffers, application of temporary mulching during construction, and permanent seeding and stabilization shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. They shall be capable of preventing erosion, of collecting sediment, suspended and floating materials, and of filtering fine sediment.

(b) Temporary sediment control barriers shall be removed upon completion of work, but not until all disturbed areas are permanently stabilized. The sediment collected by these sediment barriers shall be removed and placed at an upland location and stabilized to prevent its later erosion into a waterway or wetland.

(c) All exposed soil and other fills shall be permanently stabilized at the earliest practicable date (see GC 19).

22. Stream Work and Crossings¹.

Notes:

(a) GC 22(a) and (b) apply to Inland Waters and Wetlands (see Appendix A, Page 1 for definition) and Navigable Waters (see Appendix A, Page 4 for definition). GC 22(c)-(l) only apply to Inland Waters and Wetlands that are streams. All new and replacement crossings in Navigable Waters require an application to the Corps and at least a Category 2 review.

(b) In-stream work in a watershed occupied by listed Atlantic salmon or shortnose sturgeon [see GC 10(b)] and some stream work such as crossings on EFH waters (see GC 11) is not eligible for Category 1.

(c) “High-Quality Stream Segments” are shown at www.maine.gov/dep/gis/datamaps and may be useful in evaluating impacts to fisheries. GIS shape files are under “Other Google Earth Interactive Maps” and PDFs by county are under “DEP GIS Maps.” See Appendix E, 8(b) for more information.

Conditions:

(a) All permanent crossings of rivers, streams, brooks, etc. (hereon referred to as “streams”) shall be suitably culverted, bridged, or otherwise designed to **i**) withstand and to prevent the restriction of high flows to qualify for Category 1, and **ii**) not obstruct the movement of or not substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, beyond the actual duration of construction unless the activity’s primary purpose is to impound water to qualify for Category 1 or 2. (NOTE: Areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine applicability of this GP).

(b) Any work that temporarily or permanently impacts upstream or downstream flood conditions, or permanently impacts wetlands in excess of Category 1 thresholds, must be reviewed at least under Category 2. See the documents referenced in Appendix E, 8(c) and (d) for guidance.

(c) New Stream Crossings. For new stream crossings to qualify for Category 1:

i. Must ensure compliance with GC 22(a) and GC 22(b) above.

ii. Shall be designed and constructed in accordance with the Corps General Stream Crossing Standards provided on Page 14 and the stream simulation document listed at Appendix E, 8(a).

(d) Replacement Stream Crossings. For replacement stream crossings to qualify for Category 1:

i. Must ensure compliance with GC 22(a) and GC 22(b) above.

ii. Shall be designed and constructed in accordance with the Corps General Stream Crossing Standards provided on Page 14 and the stream simulation document listed at Appendix E, 8(a).

(e) Culvert Extensions. Culvert extensions on culverts that do not meet the Corps General Stream Crossing Standards do not qualify for Category 1 and require an application to the Corps at least as a Category 2 project.

(f) Temporary Stream Crossings.

Note: The General Stream Crossing Standards don’t apply to temporary stream crossings.

i. Temporary stream crossings or cofferdams shall be used for equipment access across streams [see Appendix E, 8(e)]. Note: Areas of fill and/or cofferdams must be included in total waterway/wetlands impacts to determine the review category in Appendix A.

ii. Temporary stream crossings shall be removed within 180 days to qualify for Category 1.

iii. Temporary stream crossings that are not spans² (typically culverts) must be designed in accordance with 1-6 below to qualify for Category 1. Category 2 applications should include information demonstrating 2-6 below:

¹ This condition does not apply to non-tidal drainage systems and irrigation ditches excavated on dry land.

² For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream with footings landward of bankfull width.

1. Installed and removed during the low flow period specified in GC 22(l) below.
2. Placed on geotextile fabric or other material where practicable to ensure restoration to the original grade. Soil may not be used to construct or stabilize these structures and rock must be large enough to allow for easy removal without disrupting the streambed.
3. Designed and maintained to withstand and pass high flows. Water height should be no higher than the top of the culvert's inlet. A minimum culvert diameter of two feet is required to pass debris. Culverts must be aligned to prevent bank erosion or streambed scour.
4. Equipped with energy dissipating devices installed downstream if necessary to prevent scour.
5. Designed and maintained to prevent soil from entering the waterbody.
6. Removed upon the completion of work. Impacts to the streambed or banks requires restoration to their original condition using stream simulation methods¹.

(g) Slip Lining. Work using slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe), invert lining, or resulting in decreased diameter, do not qualify for Category 1, either as new work or maintenance activities.

(h) Work in Flowing Waters. To qualify for Category 1, no unconfined fill [see GC 18(b)] or excavation in flowing waters is allowed. To accomplish this:

i. Bank stabilization work below ordinary high water (OHW) shall utilize erosion controls such as inflatable cofferdams, jersey barrier, silt screen, turbidity curtain, etc. where practicable to prevent sediment input to the stream and to minimize turbidity and sedimentation impacts for sensitive life stages. Bank stabilization above OHW must utilize erosion controls.

ii. Management techniques such as temporary flume pipes, culverts, cofferdams, etc. must be used to maintain normal flows within the stream boundary's confines, or water diversions may be used immediately up and downstream of the work footprint (see Appendix A, Endnote 6) or work must be performed in the dry under no flow conditions, or under very low flow conditions following the practices in GC 22(a).

(i) Minimization. In order to make the Category 2 review process more efficient and result in a faster decision, new and replacement stream crossings should be designed using the least intrusive and environmentally damaging method following this sequential minimization process: 1) spans with no stream impacts, 2) spans with stream impacts, and 3) embedded culverts with stream simulation or low-slope design.

(j) Maintenance Requirements. The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit to facilitate aquatic life passage as stated in GC 22(a). Culverts that develop "hanging" inlets or outlets, result in bed washout, or a stream that doesn't match the characteristics of the substrate in the natural stream channel such as mobility, slope, stability confinement will require maintenance or repair to comply with this GC. This does not apply to GC 22(f) above.

(k) Maintenance and Replacement Information. An existing stream crossing must be authorized and in compliance with all conditions of its authorization(s) to qualify for maintenance not subject to regulation. See Appendix A, Endnote 7. A non-serviceable crossing is not eligible for maintenance and is therefore considered as a replacement crossing [see 22(d)].

(l) Work Window. For projects that otherwise meet the terms of Category 1, in-stream construction work shall be conducted during the low flow period July 15 - October 1 in any year. Projects that are not to be conducted during that time period are ineligible for Category 1 and shall be screened pursuant to Category 2, regardless of the waterway and wetland fill and/or impact area.

(See next page for Corps General Stream Crossing Standards.)

¹ Design and construction shall be in accordance with the stream simulation document listed at Appendix E, 8(a).

Corps General Stream Crossing Standards (required for Category 1, recommended for Category 2):

(a) Culverts must be embedded:

- ≥ 2 feet for box culverts and other culverts with smooth internal walls,
- ≥ 1 foot for corrugated pipe arches
- ≥ 1 foot and at least 25 percent for corrugated round pipe culverts

(b) For new crossings, spans¹ are required to avoid or cause minimal disruption to the streambed and to meet the requirements of General Condition 22(a) and 22(b). Footings and abutments must be landward of 1.2 times bankfull width. To the greatest extent practicable, work in the stream shall be minimized, and design and construction shall allow the streambed's natural structure and integrity to remain intact. Any fill or excavation of the streambed below bankfull width other than footings, support pilings, or work specified in 22(h)ii requires Category 2 review and, unless demonstrated otherwise, stream simulation² to establish substrate and banks in the span structure and work area as specified in (d) and (e) below.

(c) For replacement crossings, spans¹ are required to meet the requirements of General Condition 22(a) and 22(b). Footings and abutments shall be landward of 1.2 times bankfull width. Unless demonstrated otherwise, stream simulation² is required to establish substrate and banks in the span structure and work area as specified in (d) and (e) below.

(d) Crossings must have a natural bottom substrate within the structure matching the characteristics of the substrate in the natural stream channel and the banks (mobility, slope, stability, confinement, grain and rock size)² at the time of construction and over time as the structure has had the opportunity to pass significant flood events. To allow terrestrial passage for wildlife and prevent undermining the footings, crossings shall have a bank on both sides of the stream matching the horizontal profile of the existing stream and banks².

(e) Crossings must be designed and constructed² with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows. In order to provide appropriate water depths and velocities at a variety of flows and especially low flows, it is usually necessary to reconstruct the streambed or preserve the natural channel within the structure. Otherwise, the width of the structure needed to accommodate higher flows will create conditions that are too shallow at low flows. The grain and rock size, and arrangement of streambed materials within the structure should be in accordance with (d) above. Flows could go subsurface within the structure if only large material is used without smaller material filling the voids.

23. Wetland Crossings.

(a) All temporary and permanent crossings of wetlands shall be suitably culverted, bridged, or otherwise designed to: **i)** Withstand and prevent the restriction of high flows, **ii)** Not obstruct the movement of or not substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the wetland, including those species that normally migrate through the area, beyond the actual duration of construction unless the activity's primary purpose is to impound water. See Appendix E for the Maine DEP's crossing standards.

(b) To qualify for Category 1, new and replacement wetland crossings that are permanent shall be culverted, spanned or bridged in such a manner as to preserve hydraulic and ecological connectivity, at its present level, between the wetlands on either side of the road. To meet this requirement, we

¹ For the purposes of this GP, spans are bridges, three-sided box culverts, open-bottom culverts or arches that span the stream with footings landward of bankfull width.

² Design and construction shall be in accordance with the stream simulation document listed at Appendix E, 8(a).

recommend that culverts, spans or bridges be placed at least every 50 feet with an opening at least 2 feet high and 3 feet wide at ground level where practicable. Closed bottom culverts shall be embedded at least 6 inches with a natural bottom.

(c) In the case of non-compliance, the permittee shall take necessary measures to correct wetland damage due to lack of hydraulic and ecological connectivity.

(d) Any work that results in flooding, results in impacts to wetlands on either side of the wetland crossing in excess of Category 1 thresholds, or impacts wetland drainage from the upgradient side of the wetland crossing does not qualify for Category 1.

24. Discharge of Pollutants.

(a) All activities involving any discharge of pollutants into waters of the U.S., including wetlands, authorized under this GP shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the Clean Water Act (CWA) (33 USC 1251), and applicable state and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this GP, the authorized work shall be modified to conform with these standards within six months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the Corps in consultation with the EPA. Issuance of a LURC or DEP NRPA permit confirms that state water quality standards are met.

(b) All projects authorized by this GP shall be designed, constructed and operated to minimize or eliminate the discharge of pollutants.

(c) All activities involving any discharge of pollutants into waters of the U.S., including wetlands, authorized under this GP must comply with Section 402 [33 U.S.C. 1342] of the CWA and the requirements of the National Pollutant Discharge Elimination System (40 CFR 122).

25. Spawning, Breeding and Migratory Areas. Activities and impacts such as excavations, discharges of dredged or fill material, and/or suspended sediment producing activities, in fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

26. Storage of Seasonal Structures. Coastal structures, such as pier sections and floats, that are removed from the waterway for a portion of the year (often referred to as seasonal structures) shall be stored in an upland location located above mean high water (MHW) and not in tidal wetlands or mudflats. These seasonal structures may be stored on the fixed, pile-supported portion of the structure that is seaward of MHW. This is intended to prevent structures from being stored on the marsh substrate, mudflats, or the substrate seaward of MHW. Seasonal storage of structures in navigable waters, e.g., in a protected cove on a mooring, requires Corps and local harbormaster approval.

27. Environmental Functions and Values. The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that maintains as much as is practicable, and minimize any adverse impacts on existing fish, wildlife, and natural environmental functions and values.

28. Protection of Vernal Pools (VPs).

(a) Impacts to VP Management Areas¹ for all VPs on, and known VPs surrounding, the project site shall be minimized to the maximum extent practicable.

(b) The following management practices must be followed for all work within the VP Management Area (750' of a VP's edge) of all VPs in order to qualify for Category 1 when there is fill placed in a water of the U.S., including wetlands:

i. Similar to the DEP's Significant Wildlife Habitat regulations²:

1. No disturbance within the VP Depression or VP Envelope (area within 100 feet of the VP Depression's edge)³;
2. Maintain a minimum of 75% of the Critical Terrestrial Habitat (area within 100-750 feet of the VP Depression's edge) as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris³;
3. Maintain or restore forest corridors connecting wetlands and significant vernal pools;
4. Minimize forest floor disturbance; and
5. Maintain native understory vegetation and downed woody debris.

ii. Cape Cod style-curb-ing or no curb-ing options shall be used on new roads to facilitate amphibian passage².

(c) For work not complying with the requirements in (b) above, applicants shall submit an application to the Corps for at least Category 2 review with information on directional buffers in accordance with the VP Directional Buffer Guidance document². Conservation of the unimpacted area within the VP Management Area will often be required.

(d) GC 2 requires applicants to delineate or approximately identify on the project plans all waters of the U.S., which include vernal pools. Appendix A, Page 1 lists VP Category 1 thresholds.

29. Invasive Species.

(a) The introduction, spread, or the increased risk of invasion of invasive plant or animal species on the project site, into new or disturbed areas, or areas adjacent to the project site caused by the site work is prohibited (see Appendix E, Paragraph 6).

(b) Unless otherwise directed by the Corps, all applications for Category 2 inland projects and Category 2 coastal fill projects proposing fill in Corps jurisdiction shall include an Invasive Species Control Plan (ISCP) (see Appendix E, Paragraph 6).

30. Cranberry Development Projects. For cranberry development projects authorized under the GP, the following conditions apply:

(a) If a cranberry bog is abandoned for any reason, the area must be allowed to revert to natural wetlands unless an Individual Permit is obtained from the Corps allowing the discharge of fill for an alternate use.

¹ The Corps VP Management Area, which includes the VP and a 750' radius from the VP's edge, is defined at Appendix A, Endnote 5.

² Appendix E, 10(a)-(d) provides links to the state's Significant Wildlife Habitat regulations and references that provide impact minimization measures to reference when designing projects.

³ The no disturbance requirement in the VP envelope [see (b)(i)(1)], and (b)(i)(2), do not apply to temporary impacts associated with construction mats in previously disturbed areas of existing utility project (e.g., transmission lines, gas pipelines) or linear transportation project (e.g., roads, highways, railways, trails, airport runways and taxiways) right-of-ways provided there is a Vegetation Management Plan that avoids, minimizes and mitigates impacts to aquatic resources.

(b) No stream diversion shall be allowed under Category 1 of this GP.

(c) No impoundments of intermittent or perennial streams shall be allowed under Category 1 and an application to the Corps is required for at least Category 2 review.

(d) The project shall be designed and constructed to not cause flood damage on adjacent properties.

31. Inspections. The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is being or has been performed in accordance with the terms and conditions of this GP. The Corps may also require post-construction engineering drawings for completed work or post-dredging survey drawings for any dredging work.

To facilitate these inspections, the permittee shall complete and return to the Corps:

- For Category 1 projects, the Category 1 Notification Form (Appendix B).
- For Category 2 projects, the 1) Work-Start Notification Form and 2) Compliance Certification Form whenever either is provided with a Category 2 authorization letter.

32. Maintenance.

(a) The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit.

(b) This does not include maintenance of dredging projects. Each maintenance dredging event exceeding the Category 1 thresholds (see Appendix A, Page 6) requires a new written Corps authorization unless an unexpired, written Corps authorization specifies that the permittee may “dredge and maintain” an area for a particular time period. Category 1 or 2 maintenance dredging includes only those areas and depths previously authorized and dredged.

(c) Some maintenance activities may not be subject to regulation under Section 404 in accordance with 33 CFR 323.4(a)(2) (see Appendix A, Endnote 7).

33. Property Rights. This PGP does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

34. Transfer of GP Verifications. When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the entity or individual who received the GP verification, as well as the new owner(s) of the property. The permittee may transfer responsibilities and obligations under the GP verification to the new owner by submitting a letter to the Corps (see Appendix D for address) to validate the transfer. A copy of the GP verification must be attached to the letter and the letter must contain the following statement and signature: “When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this GP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

35. Modification, Suspension, and Revocation. This GP or any work authorized under Category 1 or 2 may be either modified, suspended, or revoked, in whole or in part, pursuant to the policies and procedures of 33 CFR 325.7. Any such action shall not be the basis for any claim for damages against the United States.

36. Restoration Directive. The permittee, upon receipt of a notice of revocation of authorization under this GP, shall restore the wetland or waterway to its former condition without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails

to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

37. Special Conditions. The Corps may independently, or at the request of the Federal resource agencies, impose other special conditions on a project authorized pursuant to this GP that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, constitutes a permit violation and may subject the permittee to criminal, civil, or administrative penalties and/or an ordered restoration.

38. False or Incomplete Information. If the Corps makes a determination regarding the eligibility of a project under this GP and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the GP authorization shall not be valid and the U.S. government may institute appropriate legal proceedings.

39. Abandonment. If the permittee decides to abandon the activity authorized under this GP, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

40. Enforcement Cases. This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps and/or EPA as appropriate determines that the activity may proceed independently without compromising the enforcement action.

41. Duration of Authorization. This GP expires on October 11, 2015. Activities authorized under this GP that have commenced (i.e., are under construction) or are under contract to commence before this GP expires will have until October 11, 2016 to complete the activity under the terms and conditions of the current GP.

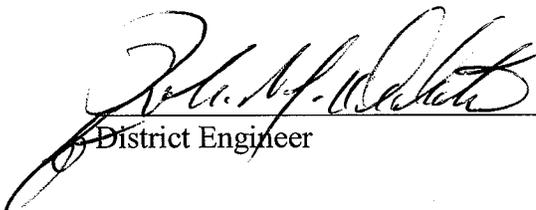
42. Previously Authorized Activities.

(a) Projects that have received authorization (Category 1 or 2) from the Corps and that were completed under the previous PGPs, nationwide permits, regional general permits or letters of permission, shall remain authorized.

(b) Activities authorized pursuant to 33 CFR Part 330.3 (“Activities occurring before certain dates”) are not affected by this GP.

(c) Any work not commenced nor completed that was authorized in a written letter from the Corps under the PGP in effect between October 11, 2005 and October 11, 2010 remains authorized subject to the terms and general conditions of this GP along with any special conditions in the authorizing written letter.

43. NEPA Compliance. The Maine PGP was authorized in full compliance with Council for Environmental Quality (“CEQ”) NEPA regulations. The Corps has determined that individual permit actions taken under the terms and conditions of the PGP are not a major federal action significantly affecting the quality of the human environment.


District Engineer
10/12/10
Date

APPENDIX A: DEFINITION OF CATEGORIES

<p>A. INLAND WATERS AND WETLANDS</p>	<p>Inland Waters and Wetlands: Waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds and wetlands, and excluding Section 10 Navigable Waters of the U.S. The jurisdictional limits are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present. For the purposes of this GP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands¹ to tidal waters are reviewed in the Navigable Waters section. (See II. Navigable Waters on page 4 below.)</p>
<p>ACTIVITY</p>	<p>Projects not meeting Category 1 require an application for review as a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 4) and general conditions (Pages 5–18).</p>
<p>(a) NEW FILL/ EXCAVATION DISCHARGES (You must reference (b) – (e) below for other thresholds that may be relevant to your project.)</p>	<p align="center">CATEGORY 1</p> <p>1. <15,000 square feet (SF) (in LURC or DEP territories) of inland waterway and/or wetland fill and associated secondary impacts² (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Construction mats are considered as fill. [See General Condition (GC) 18(g.) <u>Provided:</u></p> <ul style="list-style-type: none"> • Historic fill + proposed impact area <15,000 SF and subdivision fill complies with GC 5, Single and Complete Projects. • No work in special aquatic sites (SAS)⁴ other than wetlands. <p>2. Construction mats⁴ of any area necessary to conduct activities that were previously authorized, authorized under Category 1, or not subject to regulation (see Endnote 7). Authorized construction mats must be in place for <3 months, removed immediately upon work completion, and the wetlands must be restored (see GC 19).</p> <p>3. For work in Vernal Pool (VP) Management Areas (includes VPs)⁵:</p> <ul style="list-style-type: none"> • See GC 2 and Appendix C for VP delineation requirements. • See GC 28 to determine if work qualifies for Category 1 or 2. • See Appendix E, Page 3 for VP documents providing mitigation guidance.
<p>ACTIVITY</p>	<p align="center">CATEGORY 2</p> <p>1. ≥15,000 square feet (SF) (in LURC or DEP territories) to <3 acres of inland waterway and/or wetland fill and associated secondary impacts (e.g., areas drained, flooded, fragmented, or excavated). Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Mechanical clearing without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for Category 2 at the discretion of the Corps.</p> <p>2. Specific activities with impacts of any area ≥15,000 SF required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Wetlands must be restored in place.</p> <p>3. Temporary structures, work, and discharges (including construction mats⁴) ≥15,000 SF necessary for construction activities or access fills or dewatering of construction sites, provided that the associated primary activity is authorized by the Corps, authorized under Category 1, or not subject to Corps regulation. GCs 16 -19 are particularly relevant.</p> <p align="center">See GC 2 and Appendix C for wetland delineation requirements.</p>

ACTIVITY	CATEGORY 1	CATEGORY 2
<p>(b) BANK STABILIZATION PROJECTS</p>	<p>1. Inland bank stabilization <500 FT long and <1 CY of fill per linear foot below OHW, provided:</p> <ul style="list-style-type: none"> • ≤1 cubic yard of fill per linear foot placed along the bank waterward of ordinary high water. • Work complies with the GCs (GC 20 in particular), including: <ul style="list-style-type: none"> ○ No structures angled steeper than 1H:1V allowed. Only rough-faced stone or fiber roll revetments allowed. ○ No in-stream work involving fill or excavation in flowing waters (see GC 22(h)). • In-stream work limited to Jul 15 - Oct 1 [see GC 22 (l)]. • No work in vernal pools⁵ or SAS³. • GC 10 Endangered Species and GC 11 Essential Fish Habitat are particularly relevant. 	<p>1. Inland bank stabilization ≥500 FT long and/or ≥1 CY of fill per linear foot, or any amount with fill in wetlands.</p>
<p>(c) RIVER/ STREAM/ BROOK WORK & CROSSINGS and WETLAND CROSSINGS</p>	<p>1. River, stream and brook work and crossings:</p> <ul style="list-style-type: none"> • Must comply with GC 22 in particular, including: <ul style="list-style-type: none"> ○ No slip lining [see GC 22 (g)]. ○ No in-stream work involving fill or excavation in flowing waters [see GC 22(h)]. ○ In-stream work limited to Jul 15 - Oct 1 [see GC 22 (l)]. • No work in riffles and pools³. • No stream relocations. • No dams or dikes⁶. • Work in areas designated as Atlantic salmon critical habitat or occupied by listed Atlantic salmon, or any other area occupied by a listed species is not eligible for Category 1 (see GC 10). • No work in EFH streams except for the activities stated in GC 11. <p>2. Wetland crossings must comply with the particularly relevant GC 23.</p>	<p>1. Work not qualifying for Category 1.</p>

ACTIVITY	CATEGORY 1	CATEGORY 2
(d) REPAIR, REPLACEMENT, & MAINTENANCE OF AUTHORIZED FILLS	<p>1. Repair or maintenance of existing, currently serviceable, authorized fills with no expansion or change in use:</p> <ul style="list-style-type: none"> • Conditions of the original authorization apply • Minor deviations in fill design allowed.⁷ • The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. 	<p>2. Replacement of non-serviceable fills, or repair/maintenance of serviceable fill, with expansion <3 acres, or with a change in use.</p>
(e) MISCELL-ANEOUS	<p>1. Activities required for the containment and cleanup of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 and any existing state contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. SAS³ must typically be restored in place at the same elevation.</p> <p>2. Scientific measurement devices whose purpose is to measure and record scientific data, such as staff gages, water recording devices, water quality testing and improvement devices, and similar structures. This excludes any biological sampling devices. Structures may not restrict movement of aquatic organisms.</p> <p>3. Survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, and historic resources surveys (but not recovery). Exploratory trenches must be restored in accordance with GC 19. The construction of temporary pads is authorized provided the discharge doesn't exceed 25 CY. This doesn't authorize permanent structures or the drilling and the discharge of excavated material from test wells for oil and gas exploration (the plugging of such wells is authorized).</p> <p>4. Any work not commenced nor completed that was authorized in a written letter from the Corps under the PGP in effect between October 11, 2005 and October 11, 2010. The terms and general conditions of this GP apply along with any special conditions in the written authorization.</p>	<p>1. Aquatic habitat restoration, establishment, and enhancement of wetlands and riparian areas and the restoration and enhancement of streams and other open waters with impacts of any area $\geq 15,000$ SF, provided those activities result in net increase in overall aquatic resource functions and services.⁸</p> <p>2. Projects where an EIS is required by the Corps are not eligible for Category 2.</p>

<p>II. NAVIGABLE WATERS</p>	<p>Navigable Waters of the United States: Waters that are subject to the ebb and flow of the tide and/or the tidal and non-tidal portions of the Federally designated navigable waters (the Penobscot River, Kennebec River, and Lake Umbagog) (Section 10 Rivers and Harbors Act of 1899). The jurisdictional limits are the mean high water (MHW) line in tidal waters and the ordinary high water (OHW) mark in non-tidal portions of the federally designated navigable rivers. For the purposes of this GP, fill placed in the area between the mean high water (MHW) and the high tide line (HTL), and in the bordering and contiguous wetlands¹ to tidal waters are also reviewed in this Navigable Waters section.</p> <p>Projects not meeting Category 1 require an application for review as a Category 2 or Individual Permit project.</p> <p>All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 - 4) and general conditions (Pages 5 - 18).</p>	
<p>ACTIVITY</p>	<p>CATEGORY 2</p>	
<p>(a) FILL</p>	<p>CATEGORY 1</p> <p>1. Discharges of dredged or fill material incidental to the construction of bridges across navigable waters of the U.S., including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills provided the U.S. Coast Guard authorizes such discharges as part of the bridge permit or appropriate approval. Causeways and approach fills are not included in this category and require Category 2 or Individual Permit authorization.</p> <p>2. Bank stabilization projects <200 linear feet:</p> <ul style="list-style-type: none"> • ≤1 cubic yard of fill per linear foot placed along the bank waterward of high tide line. No fill or equipment will occur in SAS³. • Work conducted in the intertidal zone must be conducted in-the-dry during low water, or between Nov. 8 – Apr. 9. • No structures angled steeper than 1H:1V and only rough-faced stone or fiber roll revetments allowed. • No driving of piles or sheeting. <p>3. For 1 and 2 above:</p> <ul style="list-style-type: none"> • Project proponents must contact the USFWS for work on coastal beaches to ensure no impacts to piping plovers, roseate terns or their habitat [see GC 10(b)iii]. 	<p>CATEGORY 2</p> <p>1. <1 acre temporary or permanent fill, excavation and/or secondary impacts (e.g., areas drained, flooded, fragmented or mechanically cleared). Fill area includes all temporary and permanent waterway fills, provided:</p> <ul style="list-style-type: none"> • Temporary or permanent fill in eelgrass¹⁴ <1000 SF. • Permanent fill in SAS (excluding eelgrass¹⁴) <4300 SF.
<p>(b) STREAM WORK & CROSSINGS, and WETLAND CROSSINGS</p>	<p>1. New crossings or replacement crossings that do not fit the (c) Repair and Maintenance activity below.</p>	

ACTIVITY	CATEGORY 1	CATEGORY 2
<p>(c) REPAIR AND MAINTENANCE WORK</p>	<p>1. Repair, replacement in-kind, or maintenance⁷ of existing, currently serviceable⁷, authorized structures or fills:</p> <ul style="list-style-type: none"> • Conditions of the original authorization apply. • No substantial expansion or change in use. • Must be rebuilt in same footprint, however minor deviations in structure design allowed⁷. • The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. Minor deviations for work involving piles shall adhere to one of the 4 methods in a - d below: <ul style="list-style-type: none"> a. Piles installed in-the-dry during low water or in-water between Nov. 8th - Apr. 9th, or b. Must be drilled and pinned to ledge, or c. Vibratory hammers used to install any size and quantity of wood, concrete or steel piles, or d. Impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any size, concrete piles ≤18-inches diameter, steel piles <12-inches diameter if the hammer is ≤3000 lbs and a wood cushion is used between the hammer and steel pile, and <ul style="list-style-type: none"> • For b – d above: <ul style="list-style-type: none"> ○ In-water noise levels shall not exceed >187dB SEL re 1μPa or 206dB peak re 1μPa at a distance >10m from the pile being installed, and ○ In-water noise levels >155dB peak re 1μPa shall not exceed 12 consecutive hours on any given day and a 12 hour recovery period (i.e., in-water noise below 155dB peak re 1μPa) must be provided between work days. • For a – d above: <ul style="list-style-type: none"> ○ Work is not eligible for Category 1 if conducted in tidal portions of the Penobscot river upstream of a line extending from Turner point in Castine to Moose Point (formerly squaw point) on Cape Jellison in Stockton Springs or in tidal portions of the Kennebec or Androscoggin Rivers upstream of a line extending from Doubling point in Arrowsic to Hospital Point in West Bath. 	<p>CATEGORY 2</p> <p>1. Replacement of non-serviceable structures and fills or repair/maintenance of serviceable structures or fills, with fill, replacement or expansion <1 acre, or with a change in use.</p>

ACTIVITY	CATEGORY 1	CATEGORY 2
<p>(d) DREDGING AND ASSOCIATED DISPOSAL</p>	<p>1. Maintenance dredging¹⁰ for navigational purposes <1,000 CY with upland disposal. Includes return water from upland contained disposal area, provided:</p> <ul style="list-style-type: none"> • Proper siltation controls are used. • Dredging & disposal operation limited to Nov. 8 – Apr. 9. • No impact to SAS³. • No dredging in intertidal areas. • No dredging in areas considered occupied by listed Atlantic salmon [see GC 10(b)(ii)]. • For dredging in waters outside of Atlantic salmon critical habitat, applicants must contact NMFS (Appendix D) to ensure no impacts to listed species such as shortnose sturgeon. • Project proponents must contact the USFWS for work on coastal beaches to ensure no impacts to piping plovers, roseate terns or their habitat [see GC 10(c)]. 	<p>1. Maintenance dredging¹⁰ ≥1,000 CY, new dredging <25,000 CY, or projects not meeting Category 1. Includes return water from upland contained disposal areas. Disposal includes:</p> <ul style="list-style-type: none"> • Upland. • Beach nourishment (above mean high water) of any area provided dredging's primary purpose is navigation or sand is from an upland source. • Open water & confined aquatic disposal, if Corps finds the material suitable. <p>2. Beach nourishment associated with dredging when the primary purpose is not navigation requires at least a Category 2 review.</p> <p>3. Maintenance or new dredging¹⁰ and/or disposal in or affecting a SAS³ requires an Individual Permit. See II(a) above for dredge disposal in wetlands or waters.</p>
<p>(e) MOORINGS</p>	<p>1. Private, non-commercial, non-rental, single-boat moorings, provided:</p> <ul style="list-style-type: none"> • Authorized by the local harbormaster/town. • Not associated with any boating facility.¹¹ • Boat or mooring not located in a Federal Navigation Project¹² other than a Federal Anchorage¹². Moorings in Federal Anchorage not associated with a boating facility¹¹ and are not for rent. • No interference with navigation. • No new moorings located in SAS³. Prior to installation of moorings, a site-specific eelgrass survey should be conducted to document that eelgrass is not present. • When existing, authorized moorings in SAS³ are going to be replaced, they shall be replaced with elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems where practicable. <p>2. Minor relocation of previously authorized moorings and moored floats, provided:</p> <ul style="list-style-type: none"> • Authorized by the local harbormaster/town. • Not located in SAS³ • No interference with navigation. • Cannot be relocated into a Federal Navigation Project¹² other than a Federal Anchorage¹² 	<p>1. Moorings associated with a boating facility¹¹. An eelgrass¹⁴ survey may be required.</p> <p>2. Moorings that don't meet the terms in Category 1 and don't require an Individual Permit. This includes private moorings with no harbormaster or means of local approval.</p> <p>3. Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits¹³ of a Federal Channel¹². (See Appendix F.) The buffer zone is equal to 3 times the authorized depth of that channel.</p> <p>4. An IP is required for moorings within the horizontal limits¹¹, or with moored vessels that extend, into the horizontal limits of a Federal Navigation Project¹², except those in Federal Anchorages¹².</p> <p>For 1-4 above, siting of new individual moorings in SAS³, including eelgrass¹⁴, should be avoided to the maximum extent practicable. If SAS³ cannot be avoided, plans should show elastic mooring systems that prevent mooring chains from resting or dragging on the bottom substrate at all tides and helical anchors, or equivalent SAS protection systems, where practicable.</p>

ACTIVITY (f) STRUCTURES AND FLOATS	CATEGORY 1	CATEGORY 2
	<p>1. Reconfiguration of existing, authorized structures or floats.</p> <p><u>Provided:</u></p> <p>a. Piles shall adhere to one of the 4 methods in (i) –(iv) below:</p> <ul style="list-style-type: none"> i. Piles installed in-the-dry during low water or in-water between Nov. 8th - Apr. 9th, or ii. Must be drilled and pinned to ledge, or iii. Vibratory hammers used to install any size and quantity of wood, concrete or steel piles, or iv. Impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any size, concrete piles ≤18-inches diameter, steel piles <12-inches diameter if the hammer is ≤3000 lbs and a wood cushion is used between the hammer and steel pile. <p>b. For (ii) – (iv) above:</p> <ul style="list-style-type: none"> i. In-water noise levels shall not exceed > 187dB SEL re 1µPa or 206dB peak re 1µPa at a distance >10m from the pile being installed, and ii. In-water noise levels >155dB peak re 1µPa shall not exceed 12 consecutive hours on any given day and a 12 hour recovery period (i.e., in-water noise below 155dB peak re 1µPa) must be provided between work days. <p>c. For (i) –(iv) above:</p> <ul style="list-style-type: none"> i. Work is not eligible for Category 1 if conducted in tidal portions of the Penobscot river upstream of a line extending from Turner point in Castine to Moose Point (formerly squaw point) on Cape Jellison in Stockton Springs or in tidal portions of the Kennebec or Androscoggin Rivers upstream of a line extending from Doubling point in Arrowsic to Hospital Point in West Bath. 	<p>CATEGORY 2</p> <p>1. Private structures or floats, including floatways/skidways, built to access waterway (seasonal and permanent)</p> <p>2. Expansions to existing boating facilities¹¹.</p> <p>For 1 & 2 above, compliance with the following design standards is not required but recommended:</p> <ul style="list-style-type: none"> • Pile-supported structures <400 SF, with attached floats totaling ≤200 SF. • Bottom anchored floats ≤200 SF. • Structures are ≤4’ wide and have at least a 1:1 height:width ratio¹¹. • Floats supported a minimum of 18” above the substrate during all tides. • Structures & floats not located within 25’ of any eelgrass⁸. • Moored vessels not positioned over SAS⁴. • No structure located within 25’ of the riparian property boundary without written approval from the abutter(s). • No structure extends across >25% of the waterway width at mean low water. • Not located within the buffer zone of the horizontal limits¹³ of a Corps Federal Navigation Project (FNP) (App. F). The buffer zone is equal to three times the authorized depth of that FNP. <p>3. An Individual Permit is required for structures or floats, including floatways/skidways, located such that they and/or vessels docked or moored at them are within the horizontal limits¹³ of a Corps Federal Navigation Project¹² (see App. F).</p> <p>4. An Individual Permit is required for structures & floats associated with a new or previously unauthorized boating facility¹¹.</p>

ACTIVITY	CATEGORY 1	CATEGORY 2
(g) MISCELL- ANEOUS	<p>1. Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are removed within 30 days after use is discontinued.</p> <p>2. The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR 66, Chapter I, subchapter C).”</p> <p>3. Activities required for the containment and cleanup of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) provided that the work is done in accordance with the Spill Control and Countermeasure Plan required by 40 CFR 112.3 and any existing state contingency plan and provided that the Regional Response Team (if one exists in the area) concurs with the proposed containment and cleanup action. SAS³ must typically be restored in place at the same elevation.</p> <p>4. Fish and wildlife harvesting, enhancement, and attraction devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, and clam and oyster digging, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This does not authorize artificial reefs or impoundments and semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks. No activity that results in a hazard to navigation. Note: A Category 1 Notification Form is not required for these devices and activities.</p> <p>5. Scientific measurement devices whose purpose is to measure and record scientific data, such as staff gages, water recording devices, water quality testing and improvement devices, and similar structures. Structures may not restrict movement of aquatic organisms. No activity results in a hazard to navigation.</p> <p>6. Survey activities such as exploratory drilling, surveying and sampling activities, excluding any biological sampling devices. Does not include oil and gas exploration and fill for roads or construction pads. No activity results in a hazard to navigation. Applicants must contact NMFS to ensure no impacts to listed species.</p>	<p>1. Structures or work in or affecting tidal or navigable waters, that are not defined under any of the previous headings listed above. Includes, but is not limited to, utility lines, aerial transmission lines, pipelines, outfalls, boat ramps, floatways/skidways, bridges, tunnels and horizontal directional drilling activities seaward of the mean high water line.</p> <p>2. Shellfish/finfish (other than Atlantic salmon), or other aquaculture facilities with no more than minimal individual and cumulative impacts to environmental resources or navigation. –Aquaculture guidelines are provided at: www.maine.gov/dmr/aquaculture/index.htm.</p> <p>3. Specific activities with impacts of any area required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Wetlands must typically be restored in place at the same elevation to qualify.</p> <p>4. Aquatic habitat restoration, establishment and enhancement provided those activities are proactive and result in net increases in aquatic resource functions and services.⁸</p> <p>5. Projects where an EIS is required by the Corps are not eligible for Category 2.</p>

ACTIVITY	CATEGORY 1	CATEGORY 2
(g) MISCELL-ANEIOUS (continued)	<p>7. Shellfish seeding (brushing the flats⁹) projects.</p> <p>8. Marine railway work not eligible for maintenance⁷ (i.e. not currently serviceable⁷ or in non-compliance) may be replaced “in-kind” with minor deviations⁷ provided:</p> <ul style="list-style-type: none"> • Work is in the intertidal zone • No fill expansion below high tide line. • Work conducted in-the-dry during low water or in-water between Nov. 8 – Apr. 9. <p>9. Test plots <100 SF for the planting of wetland species native to the area. No grading, no structures, no plant growing devices and no interference with navigation, which require at least Category 2 review.</p> <p>10. Any work not commenced nor completed that was authorized in a written letter from the Corps under the PGP in effect between October 11, 2005 and October 11, 2010. The terms and general conditions of this GP apply along with any special conditions in the written authorization</p>	

Endnotes/Definitions

¹ **Bordering and Contiguous Wetlands:** A bordering wetland is immediately next to its adjacent waterbody and may lie at, or below, the ordinary high water mark (mean high water in navigable waters) of that waterbody and is directly influenced by its hydrologic regime. Contiguous wetlands extend landward from their adjacent waterbody to a point where a natural or manmade discontinuity exists. Contiguous wetlands include bordering wetlands as well as wetlands that are situated immediately above the ordinary highwater mark and above the normal hydrologic influence of their adjacent waterbody. Note, with respect to the federally designated navigable rivers, the wetlands bordering and contiguous to the tidally influenced portions of those rivers are reviewed under “II. Navigable Waters.”

² **Direct, Secondary, and Cumulative Impacts/Effects:**

Direct Impacts: The immediate loss of aquatic ecosystem within the footprint of the fill.

Secondary Impacts: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are a) fluctuating water levels in all impoundment and downstream associated with the operation of a dam, b) septic tank leaching and surface runoff from residential or commercial developments on fill, and c) leachate and runoff from a sanitary landfill located in waters of the U.S. Put another way, secondary effects are those impacts outside the footprint of the fill that arise from and are associated with the discharge of dredged or fill material, including the operation of an activity or facility associated with the discharge. Examples may include habitat fragmentation; interruption of travel corridors for wildlife (for example, for amphibians that migrate to and from seasonal or vernal pools used as breeding habitat); hydrologic regime changes; and impacts from operation and maintenance activities for constructed facilities; such as noise/lighting, storm water runoff, and road kill of wetland dependent wildlife. Using the directions contained in the guidelines, we consider the circumstances of a proposed discharge and the project of which it is a part to evaluate the scope, extent, severity, and permanence of direct, secondary, and cumulative adverse effects upon the aquatic ecosystem.

Cumulative Impacts: The extent of past, present, and foreseeable developments in the area may be an important consideration in evaluating the significance of a particular project's impacts. Although the impacts associated with a particular discharge may be minor, the cumulative effect of numerous similar discharges can result in a large impact. Cumulative impacts should be estimated only to the extent that they are reasonable and practical.

³**Special Aquatic Sites:** Includes wetlands and saltmarsh, mudflats, riffles and pools, and vegetated shallows (predominantly comprised of eelgrass in Maine).

⁴**Construction Mats:** Constructions, swamp and timber mats (herein referred to as "construction mats") are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be construction mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like construction mats, they are considered as fill whether they're installed temporarily or permanently.

⁵**Vernal Pools:** A vernal pool, also referred to as a seasonal forest pool, is a temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition. For the purposes of this GP, the presence of any of the following species in any life stage in any abundance level/quantity would designate the waterbody as a vernal pool: fairy shrimp, blue spotted salamanders, spotted salamanders or wood frogs. The Corps may determine during a Category 2 review that a waterbody should not be regulated as a VP based on available evidence. For the purposes of this GP*, the VP Management Areas are the: Vernal Pool Depression (includes the vernal pool depression up to the spring or fall high water mark, and includes any vegetation growing within the depression), Vernal Pool Envelope (area within 100 FT of the VP Depression's edge) and Critical Terrestrial Habitat (area within 100-750 FT of the Vernal Pool Depression's edge). [*Note: Critical Terrestrial Habitat is defined as 100 -750 FT on page 243 of the document "Science and Conservation of Vernal Pools in Northeastern North America," Calhoun and deMaynadier, 2008, which is referenced in Appendix E, page 3, Paragraph 10(b).

⁶**Water Diversions:** Water diversions are activities such as bypass pumping or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

⁷**Maintenance:** a) In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: "Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design." Otherwise, the following work is regulated and subject to the Category 1 or 2 thresholds in Appendix A above: The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 – "Activities occurring before certain dates," provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. b) Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make repair, rehabilitation, or replacement are authorized. c) Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction. d) No seaward expansion for bulkheads or any other fill activity is considered Category 1 maintenance. e) Only structures or fills that were previously authorized and are in compliance with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2), or in accordance with the Category 1 or 2 thresholds in Appendix A. f) The state's maintenance provisions may differ from the Corps and may require reporting and written authorization from the state. g) Contact the Corps to determine whether stream crossing replacements require a written application to the Corps for at least a Category 2 review.

⁸**Aquatic Habitat Restoration, Establishment and Enhancement:** The Corps will decide if a project qualifies and must determine in consultation with federal and state agencies that the net effects are beneficial. The Corps may refer to Nationwide Permit 27 published in the 3/12/07 Federal Register. Activities authorized here may include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement

of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands in inland waters; the construction of open water areas; the construction of native shellfish species habitat over unvegetated bottom for the purpose of habitat protection or restoration in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

⁹ **Brushing the Flats:** The placement of tree boughs, wooden lath structure, or small-mesh fencing on mudflats to enhance recruitment of soft-shell clams (*Mya arenaria*).

¹⁰ **Maintenance Dredging:** This includes only those areas and depths previously authorized by the Corps and dredged.

¹¹ **Boating Facilities:** Facilities that provide for a fee, rent, or sell mooring space, such as marinas, yacht clubs, boat clubs, boat yards, town facilities, dockminiums, etc.

¹² **Federal Navigation Projects (FNPs):** FNPs are comprised of Federal Channels and Federal Anchorages. See Appendix F for their location and contact the Corps for more information. “Horizontal Limits” is the outer edge of an FNP. “Buffer Zone” is equal to three times the authorized depth of that channel.

¹³ **Horizontal Limits:** The outer edge of a Federal Navigation Project (FNP). See Appendix F and contact the Corps for information on FNP’s.

¹⁴ **Eelgrass (*Zostera marina*):** A type of rooted aquatic vegetation that exists in intertidal and shallow subtidal areas known as vegetated shallows. See www.nero.noaa.gov/hcd/ for eelgrass survey guidance.

¹⁵ **Structures:** The height of structures shall at all points be equal to or exceed the width of the deck. For the purpose of this definition, height shall be measured from the marsh substrate to the bottom of the longitudinal support beam.

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM**
(For use with DEP Regulation, Chapter 305)

PLEASE TYPE OR PRINT IN **BLACK INK ONLY**

Name of Applicant: (owner)	Maine Department of Transportation	Name of Agent:	Laurie Rowe
Applicant Mailing Address:	16 State House Station	Agent Phone # (include area code):	(207) 215-5072
Town/City:	Augusta	PROJECT Information Name of Town/City:	
		MDOT WIN:	019267.00
State and Zip code:	ME 04344	Name of Wetland or Waterbody:	Ripley Creek
Daytime Phone # (include area code):	(207) 624-3100	Map #:	Lot #:
Detailed Directions to Site:	N 43.9669 W 69.2150 Rt 131 Tenant's Harbor, St. George, ME		
	UTM Northing: (if known)		UTM Easting: (if known)
Description of Project:	Replace 48"x 62' CMP with 84"x72' CMP. Inslopes at 1.5:1 and rip rap tpo be placed on slopes around culvert invert. Pipe will be embedded on inlet end and not on outlet end due to ledge.		
Part of a larger project? (check one)→	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	After the Fact? (check one)→	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Check one→ This project <input checked="" type="checkbox"/> does (or) <input type="checkbox"/> does not involve work below mean low water (average low water).			

PERMIT BY RULE (PBR) SECTIONS: (Check at least one)

I am filing notice of my intent to carry out work which meets the requirements for Permit By Rule (PBR) under DEP Rules, Chapter 305. I and my agents, 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 Protected Natural Res. | <input type="checkbox"/> Sec. (10) Stream Crossing | <input type="checkbox"/> Sec. (17) Transfers/Permit Extension |
| <input type="checkbox"/> Sec. (3) Intake Pipes | <input checked="" type="checkbox"/> Sec. (11) State Transportation Facil. | <input type="checkbox"/> Sec. (18) Maintenance Dredging |
| <input type="checkbox"/> Sec. (4) Replacement of Structures | <input type="checkbox"/> Sec. (12) Restoration of Natural Areas | <input type="checkbox"/> Sec. (19) Activities in/on/over significant vernal pool habitat |
| <input type="checkbox"/> Sec. (5) REPEALED | <input type="checkbox"/> Sec. (13) F&W Creation/Enhance/Water Quality Improvement | <input type="checkbox"/> Sec. (20) Activities in existing dev. areas located in/on/over high or moderate value inland waterfowl & wading bird habitat or shorebird nesting, feeding & staging areas |
| <input type="checkbox"/> Sec. (6) Movement of Rocks or Vegetation | <input type="checkbox"/> Sec. (14) REPEALED | |
| <input type="checkbox"/> Sec. (7) Outfall Pipes | <input type="checkbox"/> Sec. (15) Public Boat Ramps | |
| <input type="checkbox"/> Sec. (8) Shoreline stabilization | <input type="checkbox"/> Sec. (16) Coastal Sand Dune Projects | |
| <input type="checkbox"/> Sec. (9) Utility Crossing | | |

I have attached the following required submittals. **NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS:**

- Attach** a check for \$65 made payable to: "Treasurer, State of Maine". State agency-internally billed.
- Attach** a U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked.
- Attach Proof of Legal Name.** If applicant is not an individual or municipality, provide a copy of Secretary of State's registration information (available at <http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x>)
- Attach photos of the proposed site where activity will take place as outlined in PBR Sections checked above.**
- Attach** all other required submissions as outlined in the PBR Sections checked above.

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 also understand that **this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.**

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in the rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant:	<i>Judith C. Gates</i>	Date:	11/15/13
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Keep a copy as a record of permit. Send the form with attachments via certified mail or hand deliver to the Maine Dept. of Environmental Protection at the appropriate regional office listed below. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Permits are valid for two years. **Work carried out in violation of any standard is subject to enforcement action.**

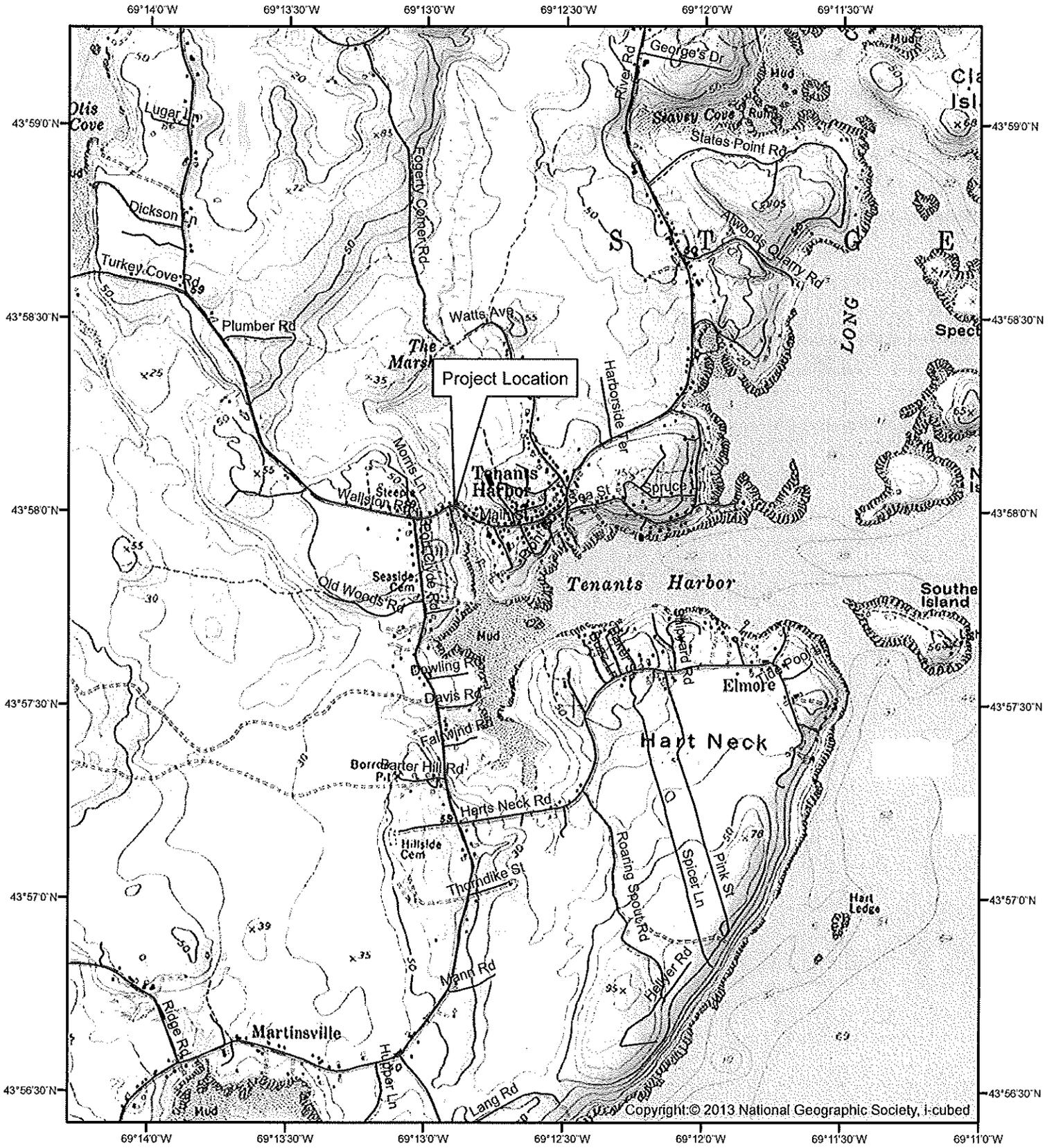
AUGUSTA DEP
17 STATE HOUSE STATION
AUGUSTA, ME 04333-0017
(207)287-3901

PORTLAND DEP
312 CANCO ROAD
PORTLAND, ME 04103
(207)822-6300

BANGOR DEP
106 HOGAN ROAD
BANGOR, ME 04401
(207)941-4570

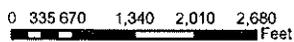
PRESQUE ISLE DEP
1235 CENTRAL DRIVE
PRESQUE ISLE, ME 04769
(207)764-0477

OFFICE USE ONLY	Ck.#	Date	Staff	Staff	After Photos
PBR #	FP		Acc. Date	Def. Date	171



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43.96698

MDOT WIN 19267.00
Saint George Rte 131



Chapter 305: PERMIT BY RULE

- 1. Introduction.** A "permit by rule" or "PBR", when approved by the Department of Environmental Protection (DEP), is an approval for an activity that requires a permit under the Natural Resources Protection Act (NRPA). Only those activities described in this chapter may proceed under the PBR process. A PBR activity will not significantly affect the environment if carried out in accordance with this chapter, and generally has less of an impact on the environment than an activity requiring an individual permit. A PBR satisfies the Natural Resources Protection Act (NRPA) permit requirement and Water Quality Certification requirement.

If a proposed activity is not described in this chapter, or will not be conducted in accordance with the standards of this chapter, the applicant must obtain an individual permit prior to beginning the activity.

- A. Location of activity.** The location of an activity may affect whether an activity qualifies for PBR, and whether review by the Department of Inland Fisheries and Wildlife is required.

- (1) Type of resource. For some types of activities, the availability of a PBR is affected by the type of natural resource in or adjacent to which the activity is proposed. For example, an applicant proposing an activity consisting of "Movement of rocks or vegetation" may receive a PBR only if the activity will take place in a great pond, river, stream or brook. Limitations concerning the location of activities are addressed in the "Applicability" provision in each section of this chapter.
- (2) Essential habitat. Essential habitats include areas critical to the survival of threatened and endangered species such as the bald eagle, least tern, roseate tern, and piping plover. If the activity is located in essential habitat, such as near an eagle nesting site, a PBR is only available if the applicant obtains written approval from the Department of Inland Fisheries and Wildlife (IF&W). This approval from IF&W must be submitted to the DEP with the PBR notification form, and the applicant must follow any conditions stated in the IF&W approval.

NOTE: Maps showing areas of essential habitat are available from the Department of Inland Fisheries and Wildlife regional headquarters, municipal offices, the Land Use Regulation Commission (for unorganized territories) and DEP regional offices. If the activity is located in essential habitat, IF&W must be contacted to request and obtain a "certification of review and approval".

- B. Notification.** The applicant must file notice of the activity with the DEP prior to beginning work on the activity. The notification must be on a form provided by the DEP and must include any submissions required in this chapter. The applicant must keep a copy to serve as the permit.

The notification form must be sent to the DEP by certified mail (return receipt requested), or hand delivered to the DEP and date stamped by the department. By signing the notification form, the applicant is representing that the activity will meet the applicability requirements and standards of the rule. In addition, by signing the notification form the applicant represents that the applicant has sufficient title, right, or interest in the property where the proposed activity is to take place.

C. Effective period

- (1) Beginning of period. The PBR becomes effective 14 calendar days after the DEP receives the notification form, unless the DEP approves or denies the PBR prior to that date. If the DEP does not speak with or write to the applicant within this 14 day period regarding the PBR notification, the applicant may proceed to carry out the activity.

There are three exceptions regarding the effective date of an approved PBR:

- (a) Activities listed in Section 10 (Stream crossings) occurring in association with forest management are exempt from the 14 day waiting period.
- (b) Activities listed in Section 10 (Stream crossings) performed or supervised by individuals currently certified in erosion control practices by the DEP are exempt from the 14 day waiting period. To be certified in erosion control practices, an individual must successfully complete all course requirements of the Voluntary Contractor Certification Program administered by the DEP's Nonpoint Source Training and Resource Center.
- (c) Activities that are part of a larger project requiring a permit under the Site Location of Development or the Storm Water Management Acts may not proceed until any required permit under those laws is obtained.

NOTE: Activities that are part of a larger project may require other permits from the DEP also. These other laws may prohibit the start of construction of any part of the project unless a permit under that law is obtained. In these cases, while not a violation of this rule, starting work on a PBR approved activity would be a violation of those other applicable laws.

- (2) End of period. The PBR is generally effective for 2 years from the date of approval, except that a PBR for "Replacement of structures" under Section 4 is effective for 3 years.

NOTE: Activities that qualify under this chapter may need to meet other local, state and federal requirements. Examples -- (1) If an activity extends below the low water line of a lake, coastal wetland or international boundary water, the applicant should contact the Bureau of Parks and Lands (287-3061) concerning possible lease or easement requirements, or (2) If an activity will involve work below the mean high water line in navigable waters of the United States, the applicant should contact the Army Corps of Engineers (623-8367).

D. Discretionary authority. Notwithstanding compliance with the PBR applicability requirements and standards set forth in this chapter, the DEP may require an individual permit application to be filed in any case where credible evidence indicates that the activity:

- (1) May violate the standards of this rule or the NRPA (38 M.R.S.A. Section 480-D);
- (2) Could lead to significant environmental impacts, including cumulative impacts; or
- (3) Could adversely impact a resource of special concern.

If an individual permit is required pursuant to this subsection, the DEP shall notify the applicant in writing within the 14 calendar day waiting period described in sub-section (C) above. When

the DEP notifies an applicant that an individual permit is required, no work may be conducted unless and until the individual permit is obtained.

E. Violations. A violation of law occurs when a person, or his or her agent, performs or causes to be performed any activity subject to the NRPA without first obtaining a permit from the DEP, or acts contrary to the provisions of a permit. The person, his or her agent, or both, may be held responsible for the violation. Commonly, the "person" is the landowner, and the "agent" is the contractor carrying out the activity. A violation occurs when:

- (1) An activity occurs that is not allowed under PBR, whether or not a PBR notification form has been filed with and/or approved by the DEP;
- (2) An activity occurs that is allowed under PBR, but a PBR for the activity has not become effective prior to the beginning of the activity; or
- (3) An activity occurs that is allowed under PBR and a PBR for the activity is in effect, but the standards specified in this chapter are not met.

See the "applicability" provision under each activity for rules concerning what activities are allowed under PBR. A PBR is only valid for the person listed on the notification form, or for his or her agent.

Each day that a violation occurs or continues is considered a separate offense. Violations are subject to criminal penalties and civil penalties of not less than \$100 nor more than \$10,000 for each day of that violation (38 M.R.S.A. Section 349).

NOTE: A local Code Enforcement Officer (CEO) may take enforcement action for a violation of the Natural Resources Protection Act if he or she is authorized to represent a municipality in District Court, and he or she has been certified as familiar with court procedures, 30-A M.R.S.A. Section 4452(7).

2. Activities adjacent to protected natural resources

A. Applicability

- (1) This section applies to an activity adjacent to, but not in:
 - (a) A coastal wetland, great pond, river, stream or brook or significant wildlife habitat contained within a freshwater wetland; or
 - (b) Freshwater wetlands consisting of or containing:
 - (i) Under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, except for artificial ponds or impoundments; or
 - (ii) Peatlands dominated by shrubs, sedges and sphagnum moss.
- (2) This section does not apply to an activity where sustained slopes are steeper than 3 horizontal feet: 1 vertical foot (approximately 33% slope) between the normal high water line or upland edge of the protected resource and the soil disturbance.

- (3) Activities that qualify for permit by rule under another section are not required to comply with this section unless expressly stated in that section.
- (4) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of a permit issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.
- (5) This section does not apply to an activity that does not conform to the local shoreland zoning ordinance.

NOTE: Contact the local Code Enforcement Officer for information on local shoreland zoning requirements. In most shoreland areas, a 75 or 100 foot undisturbed buffer strip is required between the disturbed areas and the water or wetland.

B. Submissions

- (1) The applicant is required to submit photographs of the area which will be affected by the activity proposed.
- (2) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) A brief narrative explaining why there is no practicable alternative to location of the activity within the 75 foot setback, and how the impact on the remaining buffer and the resource will be minimized. This narrative is not required for those activities presumed to have no practicable alternative as listed in paragraph C(1) of this section.
- (4) A scaled plan or drawing of the area affected, including information such as:
 - (a) The entire property on which the activity will take place, including property lines, the 75 foot setback, and the boundaries or location of protected natural resources such as streams and wetlands;
 - (b) Proposed and existing development on the parcel including buildings, parking areas, roads, fill areas, landscaped areas, etc.; and
 - (c) Any site constraints limiting development beyond the 75 foot setback, such as steep slopes.

It is not necessary to have the plan professionally prepared. However, it must be legible and drawn to a scale that allows clear representation of distances and measurements on the plan.

C. Standards

- (1) No activity or portion of an activity may be located within the 75 foot setback if there is a practicable alternative location on the parcel that would cause or result in less impact on the

environment. The following activities are presumed to have no practicable alternative location on the parcel.

- (a) The planting of vegetation for the purpose of controlling erosion or for establishing a vegetative buffer.
- (b) The removal or replacement of underground storage tanks when performed in accordance with 38 M.R.S.A. Section 566-A.
- (c) The replacement of a structure or the placement or replacement of a foundation or supports for a legally existing structure or addition that is not closer to a protected natural resource than the existing structure provided the municipality has approved the location of the replaced or modified structure. However, any fill, other than that required to maintain the integrity of the structure such as foundation backfill, must meet the 75 foot setback standard unless otherwise approved by the DEP pursuant to this section.

NOTE: In most cases when a structure is being replaced or a foundation is being put under an existing structure that does not meet the setback requirements of the Municipal Shoreland Zoning Ordinance, the applicant is required by the municipality to move the structure back from the natural resource to the maximum extent practicable.

- (d) The closure of a landfill in conformance with the DEP's solid waste management rules.
 - (e) Access way consisting of a footpath, stairway, or steps to the resource.
- (2) Except for those activities listed in Section 2(C)(1)(a)-(e) above, a 25 foot setback must be maintained between the normal high water line or upland edge of the protected natural resource and the activity. Areas that have slopes of 3 horizontal feet: 1 vertical foot (approximately 33% slope), or steeper, may not be counted when determining the 25 foot setback. Existing vegetation within the setback may not be disturbed except for cutting activity meeting the exemption requirements in 38 M.R.S.A. Section 480-Q(23).
- (3) Disturbance within the setback must be minimized.
- (4) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas:
- (a) Staked hay bales or silt fence must be properly installed at the edge of disturbed areas between the activity and the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

- (5) A footpath to the resource is limited to 6 feet in width and stairs or steps are limited to 4 feet in width.
- (6) All work is limited to the location and extent depicted on the plan or plans submitted pursuant to subsection B(4) of this section.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **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 adjacent to a water body or wetland.
- (2) **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.
- (2-A) **Practicable.** Available and feasible considering cost, existing technology and logistics based on the overall purpose of the project.
- (3) **Structure.** Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground. Examples of structures include buildings, utility lines and roads.
- (4) **Upland edge.** The boundary between upland and wetland.

NOTE:

Section 480-Q(15-A) of the NRPA exempts the installation, removal or repair of a septic system from permitting requirements as of March 1, 1995, as long as the system complies with all requirements of the subsurface wastewater disposal rules adopted by the Department of Human Services pursuant to 22 M.R.S.A. Section 42(3).

3. Intake pipes & water monitoring devices

A. Applicability

- (1) This section applies to the installation or maintenance of a permanent water intake pipe which will not significantly affect the water level or flow of waters within a coastal wetland, freshwater wetland, great pond, river, stream or brook. This section also applies to the installation of a well in or adjacent to a freshwater wetland or adjacent to a great pond, coastal wetland, river, stream or brook. Allowed uses of water for the purposes of this section include a water supply for a single family residence and a dry hydrant. Some intake pipes and wells adjacent to a great pond may be exempt by law (see Note 2 at the end of this subsection).
- (2) This section also applies to the installation or maintenance of a permanent device used to monitor water elevations, flow or quality including a gauging station, staff gauge, tide gauge,

water recording device, water quality testing and improvement device or other similar scientific equipment within a coastal wetland, freshwater wetland great pond, river, stream or brook.

- (3) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of a permit issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.
- (4) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTES:

- (1) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.
- (2) In a great pond, the placement of water lines to serve a single-family house or the installation of cables for utilities, such as telephone and power cables, is exempt from permit requirements under 38 M.R.S.A. Section 480-Q provided that the:
 - (a) Excavated trench for access to the water is backfilled and riprapped to prevent erosion;
 - (b) Excavated trench on the landward side of the riprapped area is seeded and mulched to prevent erosion; and
 - (c) Bureau of Parks and Lands has approved the placement of the cable across the bottom of the great pond to the extent that it has jurisdiction.
- (3) A permit will be required from the US Army Corps of Engineers for the following types of projects:
 - (a) Any activity involving open trench excavation in a waterbody or wetland;
 - (b) Any activity in coastal waterways;
 - (c) Any activity within a river, stream or brook that takes place between October 2 and July 14.; or
 - (d) Any activity involving work in waterways designated as Essential Fish Habitat for Atlantic salmon including all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscot, Kennebec, Androscoggin, Presumpscot, and Saco River.

A copy of the PBR notification and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) For an activity occurring in tidal waters, notice of approval of the timing of the activity from the Department of Marine Resources must be submitted to the DEP with the notification form.
- (2) The applicant is required to submit photographs of the area which will be affected by the activity proposed.
- (3) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.

C. Standards

- (1) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource:
 - (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the edge of the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) Disturbance of wetland vegetation must be avoided if possible. If wetland vegetation must be disturbed during the activity, it must be replaced or reestablished immediately upon completion of the activity and must be maintained.
- (3) Non-native wetland plants may not be planted in disturbed areas.
- (4) The trench width in any protected natural resource must be no wider than necessary to install the device.
- (5) Any trench in or adjacent to the wetland must be refilled with the material that was excavated. The original grading and elevation of the wetland must be restored. Residual fill material must be removed from the wetland or water body and properly stabilized. Pipe bedding material such as crushed stone or sand may be used provided clay dams or synthetic boots are used where appropriate to prevent wetland draining through the bedding material.

- (6) The water intake structure may not interfere with any potential boat usage and may not block fish passage.
- (7) If the activity occurs within tidal waters, the activity must occur during the time period approved by the Department of Marine Resources.
- (8) Excavation of a pool to increase depth is prohibited under this section.
- (9) Maintenance clearing of deposited debris and sediments from the intake area is allowed provided the cleared materials are removed from the resource and are disposed of in an upland location at least 75 feet from any open water body and stabilized to prevent erosion unless a closer upland disposal area is approved under Section 2 of this rule. Disposal of any dredged material or debris must be carried out in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 *et seq.* Clearing or removal of sediment from a water body for other purposes is not allowed under this section.
- (10) If work is performed in a river, stream or brook that is less than three feet deep at the time of the activity and at the location of the activity, the applicant must provide for temporary diversion of flow to the opposite side of the channel while work is in progress.
 - (a) Diversion may be accomplished by placing sandbags, timbers, sheet steel, concrete blocks, 6+ mil polyethylene or geotextiles from the bank to midstream on the upstream side of the activity. No more than two-thirds (2/3) or 25 feet of stream width, whichever is less, may be diverted at one time.
 - (b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream substrate must be restored to its original condition.
 - (c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.
- (11) Wheeled or tracked equipment may not be operated 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.
- (12) Wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms in order to protect wetland vegetation.
- (13) Work below the high water line of a great pond, river, stream or brook must be done at low water, except as required for emergency flood control work. Measures such as a silt boom or staked fencing must be employed to reduce and isolate turbidity.
- (14) Uncured concrete may not be placed directly into the water. Concrete must be pre-cast and cured at least three weeks before placing in the water, or where necessary, must be placed in forms and cured at least one week before the forms are removed. No washing of tools, forms, etc. may occur in or adjacent to the waterbody or wetland.
- (15) 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, provided it is cured on dry land in such a manner to expose 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 the wood will come in contact with water.

(16) Blasting in inundated areas is prohibited.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.
- (2) **Non-native wetland plants.** Wetland grasses, forbs, shrubs, or trees not native to the State of Maine, for example, common reed (*Phragmites communis*) and purple loosestrife (*Lythrum salicaria*).

4. Replacement of structures

A. Applicability

- (1) This section applies to the replacement of an existing permanent structure in, on, or over a coastal wetland, freshwater wetland, great pond, fragile mountain area, or river, stream or brook. Some activities involving maintenance and repair of a permanent structure may not require a permit (see note 2 at the end of this section).
- (2) In order to be eligible for this section, the structure must have been in place and functioning as intended within 24 months of the DEP's receipt of the notification form. A permit by rule for replacement is valid for three years from the date of approval.
- (3) This section does not apply to the replacement of a structure adjacent to a protected natural resource. (See Section 2: Activities adjacent to protected natural resources.)
- (4) This section does not apply to structures located within a sand dune system. (See Section 16: Activities in coastal dune systems.)
- (5) This section does not apply to the replacement of a dam or a tidal flood gate.
- (6) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of permits issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.
- (7) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTE: Contact the local Code Enforcement Officer for information on local shoreland zoning requirements

B. Submissions

- (1) For an activity occurring in tidal waters, notice of approval of timing of the activity from the Department of Marine Resources must be submitted to the DEP with the notification form.
- (2) The applicant is required to submit photographs of the area which will be affected by the activity proposed.
- (3) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (4) A scaled plan or drawing of the structure to be replaced that includes at a minimum the location, width, length and height of the existing structure.

It is not necessary to have the plan professionally prepared. However, it must be legible and drawn to a scale that provides a clear representation of distances and measurements on the plan.

C. Standards

- (1) A replaced structure that is located in, on, or over a protected natural resource may not exceed the dimensions, including height, of the previously existing structure, and may not extend any further into the water body or wetland, except that retaining walls may be reinforced with a facing material not exceeding 6 inch in width or may be replaced with riprap in accordance with Section 8 "Shoreline stabilization".

NOTE: Vegetation is the preferred method of erosion control near water bodies. Where the use of vegetation is not feasible, riprap is preferred over retaining walls because it dissipates wave action and is a more stable structure over the long term. The DEP encourages the replacement of retaining walls with riprap, unless the presence of large trees or structures makes its use impractical.

- (2) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the protected resources:
 - (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the edge of the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (3) Disturbance of wetland vegetation must be avoided if possible. If wetland vegetation must be disturbed during the activity, it must be reestablished immediately upon completion of the activity and must be maintained.
- (4) Non-native wetland plants may not be planted in disturbed areas.
- (5) Work done in a river, stream or brook must allow for fish passage and the maintenance of normal stream flows at all times of year and may not impound water.
- (6) No dredging may take place during the activity and no material may be removed from the affected natural resource except that rocks that were part of the original structure may be removed or reused.
- (7) Work below the high water line of a great pond, river, stream or brook must be done at low water, except as required for emergency flood control work. Measures, such as a silt boom or staked fencing, must be employed to reduce and isolate turbidity.
- (8) If the activity occurs within tidal waters, the activity must occur during the time period approved by the Department of Marine Resources.
- (9) If work is performed in a river, stream or brook that is less than three feet deep at the time of the activity and at the location of the activity, the applicant must provide for temporary diversion of flow to the opposite side of the channel while work is in progress.
 - (a) Diversion may be accomplished by placing sandbags, timbers, sheet steel, concrete blocks, 6+ mil polyethylene or geotextiles from the bank to midstream on the upstream side of the activity. No more than two-thirds (2/3) or 25 feet of stream width, whichever is less, may be diverted at one time.
 - (b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream substrate must be restored to its original condition.
 - (c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.
- (10) Wheeled or tracked equipment may not be operated 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.
- (11) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms in order to protect wetland vegetation.
- (12) All debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales, silt fence or mulch 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 Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*

- (13) Uncured concrete may not be placed directly into the water. Concrete must be pre-cast and cured at least three weeks before placing in the water, or where necessary, must be placed in forms and cured at least one week before the forms are removed. No washing of tools, forms, etc. may occur in or adjacent to the waterbody or wetland.
- (14) 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 such a manner as to expose 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 the wood will come in contact with water.
- (15) The replaced structure may not interfere with, or reduce the opportunity for, existing navigational and recreational uses of the site.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Dam.** Any man-made artificial barrier, including appurtenant works, the site on which it is located and appurtenant rights of flowage and access, that impounds or diverts a river, stream or brook or great pond.
- (2) **Dredge.** To move or remove, by digging scooping or suctioning any sand, silt, mud, gravel, rock, or other material from the bottom of a water body or wetland surface.
- (3) **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 adjacent to a water body or wetland.
- (4) **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.
- (5) **Public works project.** A federal, state or local government, or state-regulated utility project for public use or service including, but not limited to, highways, dams, bridges, utility lines, water lines, sewerage, and recreational facilities such as boat launch facilities.
- (6) **Replacement.** Any activity that results in more than 50% of a structure being restored or reconstructed whether above or below the normal high water line.
- (7) **Retaining wall.** A vertical or near vertical structure generally constructed of wood, concrete or rock or a combination of these materials and located at or below the normal high water line.

- (8) **Riprap.** Heavy, irregularly-shaped rocks that are fit into place, without mortar, on a slope. Square or rectangular rocks with flat faces, such as quarry stone or manufactured blocks, do not qualify as “irregularly-shaped”.
- (9) **Structure.** Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground. Examples of structures include buildings, utility lines and roads.
- (10) **Non-native wetland plants.** Wetland grasses, forbs, shrubs, or trees not native to the State of Maine, for example, common reed (*Phragmites communis*) and purple loosestrife (*Lythrum salicaria*).

NOTES:

- (1) Section 480-Q(15-A) of the NRPA exempts the installation, removal or repair of a septic system from permitting requirements as of March 1, 1995, as long as the system complies with all requirements of the subsurface wastewater disposal rules adopted by the Department of Human Services under 22 M.R.S.A. Section 42, subsection 3.
- (2) Section 480-Q(2) of the NRPA exempts from permitting the maintenance and minor repair of structures in, on, over or adjacent to a protected natural resource and maintenance and minor repair of private crossings of a river, stream or brook provided:
- (a) Erosion control measures are taken to prevent sedimentation of the water;
 - (b) The crossing does not block fish passage in the water course;
 - (c) There is not additional intrusion into the protected natural resources; and
 - (d) The dimensions of the repaired structure do not exceed the dimensions of the structure as it existed 24 months prior to the repair.

Section 480-Q(2) does not apply to the repair of more than 50% of a structure located in a coastal sand dune system; the repair of more than 50% of a dam, unless that repair has been approved by a representative of the United States Natural Resources Conservation Service; or the repair of more than 50% of any other structure, unless the municipality in which the proposed activity is located requires a permit for the activity through an ordinance adopted pursuant to the mandatory shoreland zoning laws and the application for a permit is approved by the municipality.

- (3) Section 480-Q(2-B) of the NRPA exempts from permitting the replacement of a floating dock with another floating dock if the dimensions of the replacement dock do not exceed those of the dock being replaced and the configuration of the replacement dock is the same as the dock being replaced.
- (4) Section 480-Q(9) of the NRPA exempts from permitting emergency repair or normal maintenance and repair of existing public works which affect any protected natural resource. An activity which is exempt under this subsection shall employ erosion control measures to prevent sedimentation of any surface water, shall not block fish passage in any water course and shall not result in any additional intrusion of the public works into the protected natural resource. This exemption does to apply to any activity on an outstanding river segment as listed in section 480-P.
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5. [REPEALED]

6. Movement of rocks or vegetation

A. Applicability

- (1) This section applies to the limited movement of rocks or hand removal of vegetation from below the normal high water line of a great pond or river, stream or brook in order to provide access for swimming or navigation.
- (2) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of permits issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.
- (3) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTE: Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.

B. Submissions

- (1) The applicant is required to submit photographs of the area which will be affected by the activity proposed.
- (2) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.

C. Standards

- (1) The width of the area to be cleared may not exceed 10 feet, as measured parallel to the shore. Only one area may be cleared per lot with shore frontage or area under common ownership with shore frontage.
- (2) If the area has been cleared in the past, subsequent clearing must be limited to the same area.
- (3) Rocks moved from the cleared area must remain in the water and must be distributed randomly in such a way that a structure such as a jetty or boat ramp will not be formed. Rocks may not be removed from the water.
- (4) Wheeled or tracked equipment may not be operated in the water. For large rock movement, equipment operating on the shore may reach into the water with a bucket or similar extension provided no bottom sediments are removed or displaced. Areas that are disturbed as part of equipment access and operation must be restored to their original grade and vegetation or as near thereto as practicable.
- (5) Rocks that are holding the shoreline may not be moved.
- (6) Cut or uprooted vegetation must be removed from the water.

(7) Work must be done during periods of low water level or flow.

7. Outfall pipes

A. Applicability

(1) This section applies to the installation and maintenance of a permanent outfall pipe, an outlet from a ditch or drain tile for storm water, ground water or other discharges licensed by the DEP in or on land adjacent to a coastal wetland, freshwater wetland, great pond, river, stream or brook.

NOTES:

(1) A wastewater discharge license from the DEP is required for any discharge from an the outlet other than stormwater from residential development; small commercial or industrial facilities; or uncontaminated groundwater.

(2) A permit will be required from the US Army Corps of Engineers for the following types of projects:

(a) Any activity involving open trench excavation in a waterbody or wetland;

(b) Any activity in coastal waterways;

(c) Any activity within a river, stream or brook between October 2 and July 14; or

(d) Any activity involving work in waterways designated as Essential Fish Habitat for Atlantic salmon including all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscot, Kennebec, Androscoggin, Presumpscot, and Saco River.

A copy of the PBR notification and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

(2) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of permits issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.

(3) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTE: Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.

B. Submissions

- (1) For an activity occurring in tidal waters, notice of approval of the timing of the activity from the Department of Marine Resources must be submitted to the DEP with the notification form.
- (2) The applicant is required to submit photographs of the area which will be affected by the activity proposed.
- (3) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.

C. Standards

- (1) The following measures must be taken to prevent erosion of soil or fill material from the disturbed areas into the resource:
 - (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the edge of the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation control consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) Stormwater outfalls, whether a pipe or trench, must utilize velocity reducing structures and/or rock aprons to prevent erosion. A vegetative filter strip of at least 25 feet long must be established and maintained between the outfall structure and the resource unless a different standard is required pursuant to the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, or the Storm Water Management Law, 38 M.R.S.A. Section 420-D. The DEP may approve a reduction in width of the vegetated buffer if:
 - (a) The applicant demonstrates in writing that the full buffer width is not practicable;
 - (b) Any recommendations from the DEP are incorporated into the activity; and
 - (c) Approval of the reduction is from the DEP in writing.
- (3) Foundation drains and licensed discharges may extend to, and outfall in, the resource. If necessary, a rock apron must be constructed to prevent erosion.

- (4) Disturbance of wetland vegetation must be avoided if possible. If wetland vegetation must be disturbed during the activity, it must be reestablished immediately upon completion of the activity and must be maintained.
- (5) Non-native wetland plants may not be planted in disturbed areas.
- (6) The trench width in any protected natural resource must be no wider than necessary to install the device.
- (7) The trench in and adjacent to the protected natural resource must be refilled with the material that was excavated. The original grading and elevation of the wetland must be restored. Residual fill material must be removed from the wetland or water body and properly stabilized. Pipe bedding material such as crushed stone or sand may be used provided clay dams or synthetic boots are used where appropriate to prevent wetland draining through the bedding material.
- (8) Blasting in inundated areas is prohibited.
- (9) The outfall structure may not interfere with any potential boat usage of the project site.
- (10) 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.
- (11) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms in order to protect wetland vegetation.
- (12) Work below the high water line of a great pond, river, stream or brook must be done at low water except as required for emergency flood control work. Measures, such as a silt boom or staked fencing, must be employed to reduce and isolate turbidity.
- (13) Maintenance clearing of deposited debris and sediments from the outfall area is allowed provided the cleared materials are removed from the resource. 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 Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*
- (14) Uncured concrete may not be placed directly into the water. Concrete must be pre-cast and cured at least three weeks before placing in the water, or where necessary, must be placed in forms and cured at least one week before the forms are removed. No washing of tools, forms, etc. may occur in or adjacent to the waterbody or wetland.
- (15) If work is performed in a river, stream or brook that is less than three feet deep at the time of the activity and at the location of the activity, the applicant must provide for temporary diversion of flow to the opposite side of the channel while work is in progress.
 - (a) Diversion may be accomplished by placing sandbags, timbers, sheet steel, concrete blocks, 6+ mil polyethylene or geotextiles from the bank to midstream on the upstream

side of the activity. No more than two-thirds (2/3) or 25 feet of stream width, whichever is less, may be diverted at one time.

- (b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream substrate must be restored to its original condition.
- (c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.

(16) If the activity occurs within tidal waters, the activity must occur during the time period approved by the Department of Marine Resources.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Diversion.** A rerouting of a river, stream or brook to a location outside of its established channel.
- (2) **Dredge.** To move or remove, by digging, scooping, or suctioning any sand, silt, mud, gravel, rock, or other material from the bottom of a water body or wetland surface.
- (3) **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 adjacent to a water body or wetland.
- (4) **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.
- (5) **Non-native wetland plants.** Wetland grasses, forbs, shrubs, or trees not native to the State of Maine, for example, common reed (*Phragmites communis*) and purple loosestrife (*Lythrum salicaria*).

8. Shoreline stabilization

A. Applicability

- (1) This section applies to the establishment of vegetation adjacent to any protected natural resource and the installation of riprap along the shoreline of a great pond, freshwater wetland with over 20,000 square feet of open water, stream or brook.
- (2) This section applies only to areas where erosion exists and vegetation is not present, as demonstrated by photographs submitted with the notification form.
- (3) This section does not apply to riprap on any river as defined by 38 M.R.S.A. Section 436-A(11), the Mandatory Shoreland Zoning Act (information is available at the Town Office).
- (4) This section does not apply to a riprap project that affects more than 100 feet of shoreline.

- (5) This section does not apply to areas within any portion of a coastal sand dune system even if portions of these systems extend into the coastal wetland.
- (6) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTES:

- (1) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.
- (2) A permit will be required from the US Army Corps of Engineers for riprap projects that include fill below the ordinary high water line of fresh waters or below the spring high tide line of tidal waters.

A copy of the PBR notification form and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) The applicant is required to submit photographs of the entire shoreline area where this activity is proposed.
- (2) Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) A scaled drawing, including a cross section, of the proposed riprap installation. The drawing must clearly depict the extent of riprap proposed to be installed, such as the length along shore and height above the normal high water line.

It is not necessary to have the plan professionally prepared. However, it must be legible and drawn to a scale that provides a clear representation of distances and measurements on the plan.

- (4) Professional design plans for riprap on streams and brooks when required pursuant to paragraph C(12) of this section.

C. Standards

- (1) Riprap may be utilized only where eroded slopes exceed 3 horizontal feet to 1 vertical foot (approximately 33% slope), or where riprap is used to stabilize an existing stormwater outfall. Where eroded slopes are shallower than 3 horizontal to 1 vertical, vegetation must be used to control erosion.
- (2) Riprap installed on the shoreline of a great pond or open water wetland may not extend higher than 2 feet above the normal high water line. Riprap installed on a river, stream or brook may not extend higher than 2 feet above the normal high water line, or to the elevation of the 100-year flood where mapped by the Federal Emergency Management Agency, whichever is higher.

- (3) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource:
- (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (4) New soil may be brought to the site and soil amendments, such as fertilizer or lime, may be used to increase soil fertility provided:
- (a) Slopes do not exceed 3 horizontal to 1 vertical;
 - (b) Existing vegetation is not permanently removed;
 - (c) Water bars or diversions are used to divert stormwater runoff away from the loam;
 - (d) Depth of new soil is less than 2 inches;
 - (e) The amendment is worked into the underlying soils;
 - (f) Disturbed areas are immediately mulched and seeded; and
 - (g) Final vegetation consists of native trees and shrubs, or matches existing vegetation immediately adjacent to the treated area.
- (5) Rocks used for riprap may not be obtained from the shoreline (because they help prevent erosion) or below the normal high water line (because they provide habitat for aquatic life).

NOTE: On many slopes, slumping is caused by wave or water motion undercutting the bank. If riprap is placed only at the bottom of the slope, and the upper portions of the bank are graded and revegetated, the cost of the shoreline stabilization project can be reduced.

- (6) The slope of the riprap may not be steeper than 1 horizontal to 1 vertical, nor shallower than 3 horizontal to 1 vertical.

- (7) Riprap must be anchored at the base of the existing bank by placing the bottom row of rock in a trench excavated at least to a depth equal to the height of the largest rock, or the riprap must be pinned to underlying ledge.
- (8) A layer of filter fabric and crushed stone must be placed under the riprap to prevent the washing of soil particles into the water.
- (9) No fill material other than the riprap and crushed stone may be placed below the normal high water line.
- (10) Riprap may not be placed in front of a retaining wall such that it extends further into the water.
- (11) A buffer strip of undisturbed vegetation at least 25 feet wide must be established and maintained along the upland edge of any riprap placed for the protection of agricultural land.
- (12) Design of riprap on stream or brook banks must be approved by either a Maine Registered Professional Engineer, the United States Natural Resources Conservation Service, or the local Soil and Water Conservation District. Evidence of this approval or plans stamped by a professional engineer must be submitted along with the Notification Form. With prior written agreement, the DEP may waive this standard for minor riprap activities on small streams.
- (13) When riprap is necessary along a river, stream or brook, it must be combined with tree and shrub plantings to provide bank stabilization, shading of the water and cover for wildlife.
- (14) If work is performed in a river, stream or brook that is less than three feet deep at the time of the activity and at the location of the activity, the applicant must provide for temporary diversion of flow to the opposite side of the channel while work is in progress.
 - (a) Diversion may be accomplished by placing sandbags, timbers, sheet steel, concrete blocks, 6+ mil polyethylene or geotextiles from the bank to midstream on the upstream side of the activity. No more than two-thirds (2/3) or 25 feet of stream width, whichever is less, may be diverted at one time.
 - (b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream substrate must be restored to its original condition.
 - (c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet shall be located and operated such that erosion or the discharge of sediment to the water is prevented.
- (15) 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.
- (16) Work below the high water line of a great pond, river, stream or brook must be done at low water except as required for emergency flood control work.
- (17) All excavated material must be stockpiled either outside the protected natural resource or on mats or platforms. Hay bales or silt fence must be used, where necessary, to prevent sedimentation. All excavated material must be removed to a location more than 75 feet from

the protected natural resource, unless otherwise approved by the DEP, and properly stabilized with vegetation upon project completion.

- (18) Disturbance of vegetation must be avoided if possible. If vegetation must be disturbed during the activity, similar types and amounts of vegetation must be re-established immediately upon completion of the activity and must be maintained.
- (19) Non-native species may not be planted in disturbed areas.
- (20) Riprap projects must be constructed in accordance with the plans or drawings submitted pursuant to subsections B(3) and (4) of this section, as applicable.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **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 adjacent to a water body or wetland.
- (2) **Riprap.** Heavy, irregularly-shaped rocks that are fit into place, without mortar, on a slope. Square or rectangular rocks with flat faces, such as quarry stone or manufactured blocks, do not qualify as “irregularly-shaped”.
- (3) **Structure.** Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground. Examples of structures include buildings, utility lines and roads.

9. Crossings (utility lines, pipes and cables)

A. Applicability

- (1) This section applies to the installation, maintenance and replacement of an overhead utility line across a river, stream or brook excluding outstanding river segments identified in 38 M.R.S.A. Section 480-P.
- (2) This section applies to the installation, maintenance and replacement of a submerged utility line across a coastal wetland, freshwater wetland, great pond, river, stream, or brook excluding outstanding river segments identified in 38 M.R.S.A. Section 480-P.
- (3) This section applies to the installation, maintenance and replacement of an overhead utility line across or adjacent to a coastal wetland, freshwater wetland or great pond provided the line is within the right-of-way of, or adjacent to the path of, an existing traveled way.
- (4) This section does not apply to a submerged utility crossing that is part of a larger project involving multiple crossings of a natural resource or more than one natural resource. Projects consisting of multiple natural resource crossings must obtain an individual permit under the Natural Resources Protection Act.
- (5) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of permits issued under the Site Location of Development Law, 38

M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.

- (6) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTES:

- (1) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.
- (2) In a great pond, the placement of water lines to serve a single-family house or the installation of cables for utilities, such as telephone and power cables, is exempt from NRPA permit requirements under 38 M.R.S.A. Section 480-Q (1) provided that the:
- (a) Excavated trench for access to the water is backfilled and riprapped to prevent erosion;
 - (b) Excavated trench on the landward side of the riprapped area is seeded and mulched to prevent erosion; and
 - (c) Bureau of Parks and Lands has approved the placement of the cable across the bottom of the great pond to the extent that it has jurisdiction.
- (3) Approval for crossing any state-owned (submerged) land must be obtained from the Department of Conservation, Bureau of Parks and Lands, State House Station 22, Augusta, ME 04333.
- (4) A permit will be required from the US Army Corps of Engineers for the following types of projects:
- (a) Any activity involving open trench excavation in a waterbody or where the impact (direct and indirect) to wetlands exceeds 4,300 square feet;
 - (b) Any activity in coastal waterways;
 - (c) Any activity within a river, stream or brook between October 2 and July 14 ;or
 - (d) Any activity involving work in waterways designated as Essential Fish Habitat for Atlantic salmon including all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscot, Kennebec, Androscoggin, Presumpscot, and Saco River.

A copy of the PBR notification and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) The applicant is required to submit photographs of the area which will be affected by the activity proposed.
- (2) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) For any work involving trenching or disturbance of substrate in a coastal wetland, great pond, river, stream or brook that occurs between October 2 and July 14, notice of approval of the timing of the activity from the Department of Inland Fisheries and Wildlife, the Atlantic Salmon Authority and the Department of Marine Resources must be submitted to the DEP with the notification form, unless otherwise approved by the DEP based upon the location of the project. In addition, for a utility crossing of marine or estuarine waters at any time of year, notice of approval of the timing from the Department of Marine Resources must be submitted to the DEP with the notification form.

C. Standards

- (1) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource:
 - (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) Disturbance of wetland vegetation must be avoided if possible. If wetland vegetation must be disturbed during the activity, it must be reestablished immediately upon completion of the activity and must be maintained.
- (3) Non-native wetland plants may not be planted in disturbed areas.
- (4) If the activity occurs in a coastal wetland, great pond, river, stream or brook between October 2 and July 14, the activity must occur during the time period approved by the Department of Inland Fisheries and Wildlife, the Atlantic Salmon Authority and the Department of Marine Resources.

- (5) The trench in and adjacent to the wetland must be refilled with the material that was excavated. The original grading and elevation of the wetland must be restored. Residual fill material must be removed from the wetland or water body and properly stabilized. Pipe bedding material such as crushed stone or sand may be used provided clay dams or synthetic boots are used where appropriate to prevent wetland draining through the bedding material.
- (6) Any trench excavation that occurs within a river, stream or brook must be performed either during a period when no water is flowing, or utilize a dry crossing method such as diverting water flow by coffer dam and pumping around the area of excavation. The trench width in any natural resource must be no wider than necessary to install the device.
- (7) The crossing may not obstruct any recreational usage of the water body.
- (8) 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.
- (9) All wheeled or tracked equipment that must travel or work in a vegetated wetland must travel and work on mats or platforms in order to protect wetland vegetation.
- (10) Any debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales or silt fence must be used, where necessary, to prevent sedimentation.
- (11) 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 Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*
- (12) Temporary roads constructed of fill are not allowed in the resource except that fill may be used on top of mats or platforms for equipment access.
- (13) 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 such a manner to expose all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol must not be used where the wood will come in contact with water.
- (14) Blasting in inundated areas is prohibited.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Crossing.** Any activity extending from one side to the opposite side of a protected natural resource, or to an island or upland within a protected natural resource whether under, through or over that resource. Such activities include, but are not limited to roads, fords, bridges, culverts, utility lines, water lines, sewer lines and cables, and the clearing and removal of vegetation necessary to install and maintain these crossings.

- (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 adjacent to a water body or wetland.
- (3) **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.
- (4) **Riprap.** Heavy, irregularly-shaped rocks that are fit into place, without mortar, on a slope. Square or rectangular rocks with flat faces, such as quarry stone or manufactured blocks, do not qualify as “irregularly-shaped”.
- (5) **Structure.** Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground. Examples of structures include buildings, utility lines and roads.
- (6) **Utility lines, pipes and cables.** Wires and pipes providing utility services. The term includes telephone and electric wires, gas, oil, water and sewer pipelines, and their support structures, whether public or private.
- (7) **Non-native wetland plants.** Wetland grasses, forbs, shrubs, or trees not native to the State of Maine, for example, common reed (*Phragmites communis*) and purple loosestrife (*Lythrum salicaria*).

10. Stream crossings (bridges, culverts and fords)

A. Applicability

- (1) This section applies to the construction of a bridge span or culvert crossing of a river, stream or brook, and associated accessway construction within 25 feet of the river, stream or brook crossing excluding the following:
 - (a) Crossings of outstanding river segments identified in 38 M.R.S.A. Section 480-P;
 - (b) Crossings of any river as defined by 38 M.R.S.A. Section 436-A(11), the Mandatory Shoreland Zoning Act (information is available at the Town Office); or
 - (c) Crossings of any portion of a river, stream or brook that experiences tidal action.

NOTE: Temporary structures do not require a permit from the department under the Natural Resources Protection Act (NRPA) provided no filling and minimal soil disturbance occurs. All crossings involving filling in and adjacent to a river, stream or brook, such as culvert crossings, are subject to the NRPA and must first receive a permit before construction.

- (2) This section also applies to the establishment of a permanent stream ford for purposes of timber harvesting, livestock, agriculture and construction and maintenance of a utility line.
- (3) A stream crossing constructed between July 15 and October 1 that is associated with forest management activities is exempt from the 14 day waiting period required in Section 1(C)(1).

- (4) A stream crossing constructed between July 15 and October 1 that is performed or supervised by individuals currently certified in erosion control practices by the DEP is exempt from the 14 day waiting period required in Section 1(C)(1).
- (5) Multiple stream crossings may be submitted on one PBR notification form as long as all of the crossing activities are located within one town.
- (6) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of permits issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.
- (7) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTES:

- (1) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.
- (2) Maintenance and repair of a public or private crossing of a river, stream or brook is exempt from the NRPA provided that:
 - (a) Erosion control measures are taken to prevent sedimentation of the water;
 - (b) The crossing does not block fish passage in the water course; and
 - (c) Any replaced culvert is not more than 25% longer than the culvert being replaced and is not longer than 75 feet.
- (3) A permit will be required from the US Army Corps of Engineers for the following types of projects:
 - (a) Any activity involving impacts (direct and secondary) to freshwater wetlands; or
 - (b) An activity within a river, stream or brook between October 2 and July 14.

A copy of the PBR notification form and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) For any crossing involving trenching or disturbance of substrate in a river, stream or brook that occurs between October 2 and July 14, the proposed dates for construction of the crossing must be clearly identified on the notification form under "Description of Project".
- (2) Except for crossings associated with forest management activities, the applicant is required to submit photographs of the area that will be affected by the activity proposed.

- (3) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.

C. Standards

- (1) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource:
- (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) If a perennial watercourse to be crossed is used for navigation, the crossing must consist of a bridge span or pipe arch with at least 4 feet of clearance during normal high water for boat traffic.
- (3) If the stream to be crossed is a perennial watercourse and has a slope of more than 2%, a bridge or a pipe arch must be used to maintain the natural streambed.
- (4) Fill sideslopes in a stream or floodplain wetland must be maintained at a slope no shallower than 3 horizontal to 1 vertical and no steeper than 1.5 horizontal to 1 vertical. Fill sideslopes must be stabilized at the completion of the activity.

NOTE: Uncompacted soils or sandy soils that are saturated at the toe of a slope will be unstable at a 1.5 to 1 slope.

- (5) A bridge or culvert must provide an opening with a cross-sectional area at least equal to 3 times the cross-sectional area of the stream channel or sufficient in size to accommodate 25-year frequency water flows.

NOTE: Stream crossings allowable under this section but located in flood hazard areas (i.e. A zones) as identified on a community's Flood Insurance Rate Maps (FIRM) or Flood Hazard Boundary Maps (FHBM) must be designed and constructed under the stricter standards contained in that community's National Flood Insurance Program (NFIP). For example, a crossing may be required to pass a 100-year flood event.

- (6) Road surfaces must be constructed in a manner to prevent erosion of material into the river, stream or brook.
- (7) Surface water on or adjacent to crossing approaches must be diverted through vegetative filter areas at least 25 feet long to avoid sedimentation of the watercourse. Roadside ditches may not extend to the resource being crossed.

NOTE: Surface water on or adjacent to crossing approaches should be diverted through vegetative filter areas to avoid sedimentation of the watercourse. Because roadside ditches may not extend to the resource being crossed, filter areas should be established in accordance with the following tables:

Average slope of land between exposed mineral soil and normal high water mark (percent)	Width of strip between ditch terminus and normal high water mark (feet along surface of the ground)
0	25
10	45
20	65
30	85
40	105
50	125
60	145
70	165

- (8) A stream ford must be lined with crushed stone, blasted ledge, washed stone, gabion blankets or geotextile material for erosion control when the natural stream bed does not consist of ledge or rock.
- (9) A stream ford must allow for fish passage at all times of the year and may not impound water. The fords must also allow for maintenance of normal stream flows.
- (10) Culvert crossings must:
- Be limited to 75 feet in length. This limit may not be exceeded within a half-mile length of the stream or within the length of stream controlled by the applicant, if less;
 - Follow the alignment and grade of the existing stream channel where possible. On perennial streams the culvert's gradient may not exceed 1%;
 - Have the bottom of the entire culvert installed at or below stream bed elevation, except for additional culverts at the same crossing;
 - Where two or more culverts are installed, be offset in order to concentrate low flows into the culvert within the natural channel;
 - Be seated on firm ground, or on geotextiles, logs or other materials used to stabilize the ground;

- (f) Be covered by soil to a minimum depth of 1 foot or according to the culvert manufacturer's specifications, whichever is greater;
- (g) Have the soil compacted at least halfway up the side of the culvert; and
- (h) Have the inlet and outlet ends stabilized by riprap in accordance with Section 8 Shoreline stabilization standards to avoid erosion of material around the culvert.

NOTE: For guidance on riprap installation, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (11) Wheeled or tracked equipment may not operate in the water. Equipment operating on the shore may, where necessary, reach into the water with a bucket or similar extension. Equipment may cross streams on rock, gravel or ledge bottom.
- (12) Work below the normal high water line must be done during periods of low water level or flow.
- (13) If the crossing involves trenching or disturbance of substrate in a river, stream or brook between October 2 and July 14, the activity must occur during the time period approved by the DEP. The approved time period may be the time period proposed by the applicant or an alternative time period approved by the DEP. An alternative time period will be required where it appears an unreasonable impact on water quality or fisheries may result at the point of crossing or immediately downstream of the crossing. The applicant will be notified by the DEP within 14 days if an alternative time period, other than the one proposed by the applicant, is required for constructing the crossing.
- (14) If work is performed in a river, stream or brook that is less than three feet deep at the time of the activity and at the location of the activity, the applicant must provide for temporary diversion of flow to the opposite side of the channel while work is in progress.
 - (a) Diversion may be accomplished by placing sandbags, timbers, sheet steel, concrete blocks, 6+ mil polyethylene or geotextiles from the bank to midstream on the upstream side of the activity. No more than two-thirds (2/3) or 25 feet of stream width, whichever is less, may be diverted at one time.
 - (b) Any material used to divert water flow must be completely removed upon completion of the activity, and the stream substrate must be restored to its original condition.
 - (c) A pump may be operated, where necessary, for a temporary diversion. The pump outlet must be located and operated such that erosion or the discharge of sediment to the water is prevented.
- (15) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms in order to protect wetland vegetation.
- (16) All excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales or silt fence must be used, where necessary, to prevent sedimentation.

- (17) 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 way 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.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Cross-sectional area.** The cross-sectional area of a stream channel is determined by multiplying the stream channel width by the average stream channel depth. The stream channel width is the straight line distance from the normal high water line on one side of the channel to the normal high water line on the opposite side of the channel. The average stream channel depth is the average of the vertical distances from a straight line between the normal high water marks of the stream channel to the bottom of the channel.
- (2) **Crossing.** Any activity extending from one side to the opposite side of a protected natural resource, or to an island or upland within a protected natural resource whether under, through or over that resource. Such activities include, but are not limited to roads, fords, bridges, culverts, utility lines, water lines, sewer lines and cables, and the clearing and removal of vegetation necessary to install and maintain these crossings.
- (3) **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 adjacent to a water body or wetland.
- (4) **Ford.** A permanent crossing of a stream utilizing an area of existing, non-erodible substrate of the stream, such as ledge or cobble, or by placing non-erodible material such as stone or geotextile on the stream bottom.
- (5) **Perennial watercourse.** A river, stream or brook depicted as a solid line on the most recent edition of a United States Geological Survey 7.5 minute series topographic map, or if not available, a 15 minute series topographic map.
- (6) **Riprap.** Heavy, irregularly-shaped rocks that are fit into place, without mortar, on a slope. Square or rectangular rocks with flat faces, such as quarry stone or manufactured blocks, do not qualify as “irregularly-shaped”.
- (7) **Used for navigation.** Those rivers, streams or brooks used by motorized watercraft.

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 December 2002.

12. Restoration of natural areas

A. Applicability

- (1) This section applies to the restoration of an altered portion of a coastal wetland, freshwater wetland, great pond, river, stream or brook to its pre-existing natural condition through the removal of fill, structures or debris which is located in, on over, or adjacent to the natural resource.

- (2) This section applies to the removal of non-native species and the planting of natural vegetation in any protected resource.
- (3) This section applies to the retrieval of sand from below the normal high water line for redistribution on an existing adjacent sand beach on a great pond.
- (4) This section applies to the restoration of the natural grade within a dredged area of a freshwater or coastal wetland.
- (5) This section does not apply to:
 - (a) Restoration or replacement of a structure or unnatural condition such as the installation of a dam structure;
 - (b) Conversion of existing natural wetlands to wetland of a different type through flooding, inundation or other means;
 - (c) Dredging of silt, sand or soil materials which have been naturally deposited from a great pond, river, stream or brook, coastal wetland or freshwater wetland except that eroded sand may be retrieved from a great pond for redistribution on an existing adjacent sand beach;
 - (d) Mining of gravel or other mineral materials from a river, stream, or brook;
 - (e) Replacement of eroded soil material in areas above, below and adjacent to the normal high water mark of a great pond, river, stream or brook, freshwater wetland, or coastal wetland, except that sand may be regraded on an existing sand beach;
 - (f) Removal of a man-made dam structure;
 - (g) Draining of a freshwater wetland to convert an area to upland; or
 - (h) An activity occurring within a coastal sand dune system.
- (6) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of permits issued under the Site Location of Development Law, 38°M.R.S.A. Sections 481 to 490, the Storm Water Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Sections 480-A to 480-Z.
- (7) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTE:

- (1) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.
- (2) A permit will be required from the US Army Corps of Engineers for the following types of projects:
 - (a) Any activity involving impacts (direct and secondary) to freshwater wetlands;

- (b) Any activity within a coastal wetland;
- (c) Any activity within an open water area;
- (d) Any activity within a river, stream or brook between October 2 and July 14; or
- (e) Any activity involving work in waterways designated as Essential Fish Habitat for Atlantic salmon including all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscot, Kennebec, Androscoggin, Presumpscot, and Saco River.

A copy of the PBR notification form and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) The applicant is required to submit photographs of the area in which this activity is proposed.
- (2) Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) For an activity occurring in tidal waters, notice of approval of timing from the Department of Marine Resources must be submitted to the DEP with the notification form.

C. Standards

- (1) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the proposed resource:
 - (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) Disturbance of wetland vegetation must be avoided if possible. If wetland vegetation must be disturbed during the activity, it must be reestablished immediately upon completion of the activity and must be maintained.
- (3) Non-native wetland plants may not be planted in disturbed areas.
- (4) Only material that has been placed in a natural resource by persons may be removed from these waterbodies except for debris deposited within the previous 12 calendar months, and sand that will be regraded onto existing adjacent sand beaches.
- (5) Sand may be regraded from below the normal high water line, but machinery may not operate in the water. Equipment operating on shore may reach into the water with a bucket or similar extension. Areas covered by vegetation, either aquatic or terrestrial, may not be disturbed during any beach regrading.
- (6) Any activity involving the regrading of an existing sand beach must include the installation of permanent erosion control devices, such as water bars and diversion ditches, that prevent future erosion of the sand from upland runoff. The erosion control devices must be installed prior to the regrading of the beach.
- (7) Vegetation and soil material used in restoring wetland areas must be similar to the vegetation and soil materials occurring under pre-existing natural conditions.
- (8) No fill other than soil material used to restore natural elevations within a dredged area of a coastal or freshwater wetland may be placed in or adjacent to a natural resource. Sand may not be brought in from off-site to replenish an existing beach.

NOTE: Erosion of sand from beaches may be due to wave action or the action of overland water flows. Contact the DEP, the local Soil and Water Conservation District, or the local lake association for assistance with identifying sources of beach erosion.

- (9) 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.
- (10) All wheeled or tracked equipment that must travel or work in a vegetated wetland area must travel and work on mats or platforms in order to protect wetland vegetation.
- (11) All excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales, silt fence or mulch must be used, where necessary, to prevent sedimentation.
- (12) If the activity occurs within tidal waters, the activity must occur during the time period approved by the Department of Marine Resources.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Dam.** Any man-made artificial barrier, including appurtenant works, the site on which it is located and appurtenant rights of flowage and access, that impounds or diverts a river, stream or brook or great pond.
- (2) **Dredge.** To move or remove, by digging, scooping, or suctioning any sand, silt, mud, gravel, rock, or other material from the bottom of a water body or wetland surface.
- (3) **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 adjacent to a wetland or water body.
- (4) **Debris.** Non-mineral materials (including but not limited to wood, brush or flotsam) deposited by wind, wave action, flooding or wild animals within the last 12 months. This term includes beaver dams, but does not include beaver or muskrat houses or nests of wild birds such as wading birds or waterfowl.
- (5) **Restoration.** An activity returning a great pond, coastal wetland, freshwater wetland, river, stream or brook from a disturbed or altered condition with lesser acreage or fewer functions to a previous condition with greater acreage or functions.
- (6) **Structure.** Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground. Examples of structures include buildings, utility lines and roads.
- (7) **Non-native wetland plants.** Wetland grasses, forbs, shrubs, or trees not native to the State of Maine, for example, common reed (*Phragmites communis*) and purple loosestrife (*Lythrum salicaria*).

13. Habitat creation or enhancement and water quality improvement activities

A. Applicability

- (1) This section applies to an alteration in or adjacent to a protected natural resource by a public natural resource agency. This rule also applies to an alteration in the same types of resources by a public utility, the Department of Transportation, owner of a federally licensed hydropower project, a conservation group, or a municipality in conjunction with and under the supervision of a public natural resource agency, exclusively for the purpose of:
 - (a) Creating or enhancing habitat for fisheries or wildlife; or
 - (b) A water quality improvement project.

These activities may include but are not limited to: fishway installation; the construction of artificial reefs; removal, maintenance, installation or modification of dam structures; and the construction and maintenance of nutrient retention structures.

- (2) This section applies to a landfill closure activity approved by the DEP.

- (3) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTES:

- (1) Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.
- (2) A permit will be required from the US Army Corps of Engineers for the following types of projects:
- (a) Any activity involving impacts (direct and secondary) to freshwater wetlands;
 - (b) Any activity within a coastal wetland;
 - (c) Any activity within an open water area;
 - (d) Any activity within a river, stream or brook between October 2 and July 14; or
 - (e) Any activity involving work in waterways designated as Essential Fish Habitat for Atlantic salmon including all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscot, Kennebec, Androscoggin, Presumpscot, and Saco River.

A copy of the PBR notification form and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) The applicant is required to submit photographs of the area in which this activity is proposed.
- (2) Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) Excluding landfill closures, if an activity is to be performed by a public utility, conservation group, municipality or the Maine Department of Transportation, certification from a public natural resource agency that the proposed activity will be done in conjunction with, or under the supervision of, the agency must be submitted with the notification form.

C. Standards

- (1) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource:
- (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the resource before the activity begins;

- (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
- (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
- (d) All disturbed soils must be permanently stabilized; and
- (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) Disturbance of vegetation must be avoided if possible. Where vegetation is disturbed outside of the area covered by any structures or filling associated with this activity, it must be reestablished immediately upon completion of the activity and must be maintained.
- (3) Non-native wetland plants may not be planted in disturbed wetland areas.
- (4) All debris or excavated material must be stockpiled either outside the wetland or on mats or platforms. Hay bales, silt fence, or mulch 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 Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Section 1301 *et seq.*
- (5) Uncured concrete may not be placed directly into the water. Concrete must be pre-cast and cured at least three weeks before placing in the water, or where necessary, must be placed in forms and cured at least one week before the forms are removed. No washing of tools, forms, etc. may occur in or adjacent to the waterbody or wetland.
- (6) 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 such a manner as to expose all surfaces to the air for at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol may not be used where the wood will come in contact with water.
- (7) 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.
- (8) Work below the high water line of a great pond, river, stream or brook shall be done at low water, except as required for emergency flood control work. Measures, such as a silt boom or staked fencing, must be employed to reduce and isolate turbidity.
- (9) All wheeled or tracked equipment that must travel or work in a vegetated coastal wetland must travel and work on mats or platforms in order to protect wetland vegetation.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Dam.** Any man made artificial barrier, including appurtenant works, the site on which it is located and appurtenant rights of flowage and access, that impounds or diverts a river, stream or brook or great pond.
- (2) **Public natural resources agency.** The Maine Department of Inland Fisheries and Wildlife, the Maine Department of Marine Resources, the Maine DEP, the Maine Department of Conservation, the United States Fish and Wildlife Service, the United States Natural Resources Conservation Service, the United States Environmental Protection Agency, the United States Army Corps of Engineers, the United States Forest Service, National Marine Fisheries Service, National Park Service, National Oceanic and Atmospheric Administration, and County Soil and Water Conservation Districts.
- (3) **Water quality improvement project.** An activity designed exclusively to maintain or enhance water quality of a freshwater wetland, great pond or river, stream, brook or a coastal wetland. Examples include but are not limited to: nutrient retention basins, water level manipulation and rerouting of drainage ways.
- (4) **Non-native wetland plants.** Wetland grasses, forbs, shrubs, or trees not native to the State of Maine, for example, common reed (*Phragmites communis*) and purple loosestrife (*Lythrum salicaria*).

14. Piers, wharves, pilings and haulouts *[repealed]*

15. Public boat ramps

A. Applicability

- (1) This section applies to the construction of a new, or the replacement of an existing, public boat ramp or carry-in launch area, including associated parking and accessways, in or adjacent to a protected natural resource by a public natural resource agency, Maine Department of Transportation, municipality, or owners of a federally licensed hydropower project within the resource affected by the hydropower project. This section does not apply if a portion of the ramp or related facilities is located in, on or over emergent marsh vegetation or intertidal mudflat.
- (2) This section applies to the construction of up to 2 launch lanes at a facility provided no more than 2 lanes exist or will exist at the completion of the activity.
- (3) This section does not apply to a new boat ramp on a lake infested with aquatic invasive plants, as defined in 38 M.R.S.A. Section 410-N. The Department of Environmental Protection identifies and maintains a list of these infested lakes.

NOTE: A permit will be required from the US Army Corps of Engineers for the following types of projects:

- (a) Any activity involving open trench excavation in a waterbody;

- (b) Any activity in coastal waterways;
- (c) Any activity within a river, stream or brook between October 2 and July 14; or
- (d) Any activity involving work in waterways designated as Essential Fish Habitat for Atlantic salmon including all aquatic habitats in the watersheds of the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration: St. Croix, Boyden, Dennys, Hobart Stream, Aroostook, East Machias, Machias, Pleasant, Narraguagus, Tunk Stream, Patten Stream, Orland, Penobscot, Passagassawaukeag, Union, Ducktrap, Sheepscoot, Kennebec, Androscoggin, Presumpscot, and Saco River.

A copy of the permit by rule notification form and original photographs, not photocopies, should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, 675 Western Avenue, Suite #3, Manchester, ME 04351. Tel. (207) 623-8367).

B. Submissions

- (1) The applicant is required to submit photographs of the area in which this activity is proposed.
- (2) Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) If the project results in a new or expanded access drive or parking area, the project design plan, erosion control plan and a request for review for an activity on great ponds classified as GPA under 38 M.R.S.A. Section 465-A must be submitted to the DEP's Division of Watershed Management (DWM) prior to submitting the notification form to the DEP. A certification from DWM must be obtained and must be included with the notification form, along with final project plans and the erosion control plan, when it is submitted to the DEP.
- (4) If the proposed activity involves work below the mean low water line of a waterbody, the applicant shall submit a copy of the project design plan along with a copy of the notification form to the Department of Conservation, Bureau of Parks and Lands, Submerged Lands Program (State House Station #22 Augusta, Maine 04333) at the time the notification form is submitted to the DEP. Work on the activity may not begin until a lease or easement is obtained or the Bureau of Parks and Lands has provided notification that one is not necessary.

NOTE: Processing of a request for a lease or easement may require several weeks of review by the Bureau of Public Lands.

- (5) If the proposed activity is located within a coastal wetland area, the applicant shall submit, along with the notification form, a letter from both the Department of Inland Fisheries and Wildlife and the Department of Marine Resources that describes times of the year in which the construction of the boat ramp may occur.
- (6) If the proposed activity is located within a freshwater wetland, great pond, river, stream or brook, the applicant shall submit, along with the notification form, a letter from the

Department of Inland Fisheries and Wildlife that describes times of the year in which the construction of the boat ramp may occur.

C. Standards

- (1) The erosion control plan must be followed. Erosion of soil or fill material from disturbed areas into the resource must be prevented. The following measures must be taken:
 - (a) Staked hay bales or silt fence must be properly installed between the area of soil disturbance and the resource before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (2) A hard-surfaced launch must be used where boats will be launched from trailers, and must meet the following specifications:
 - (a) The underwater portions of the ramp, at the time of construction, must be constructed of reinforced precast concrete planks, panels or slabs;
 - (b) The portion of the ramp used by the towing vehicle may not have a slope that exceeds 15%; the portion of the ramp used by the trailer only may not have a slope that exceeds 20%;
 - (c) The width of the hard surfaced launch lane(s) may not exceed 20 feet as measured parallel to shore;
 - (d) The upper most 6 inches of the base must consist of crushed rock or crushed or screened gravel having 5% or less passing a 200 mesh sieve; and
 - (e) Fill slopes at or below the normal high water line must be protected with riprap. Riprap installation must meet the standards for riprap in PBR Section 8, "Shoreline stabilization".
- (3) An additional area of up to 8 feet wide as measured parallel to shore may be constructed using bituminous pavement, precast concrete planks, panels or slabs to support docking systems.
- (4) A carry-in launch area for small boats must:

- (a) Consist of gravel, rock, sand, vegetation, or other erosion resistant materials;
 - (b) Have a grade not exceeding 18%; and
 - (c) Be Limited, below the low water line, to constructing a path up to 6 feet wide, measured parallel to shore, consisting of cobble, rock or concrete planks, to access deeper water to float watercraft.
- (5) A vegetated buffer zone at least 25 feet in width must be maintained between any new or expanded parking area and the waterbody.
 - (6) A parking area or access road may not be located in a protected natural resource, except that an access roadway may cross a stream if the requirements of PBR Section 10 "Stream crossings" are met.
 - (7) Any new or expanded parking area or roadway must divert stormwater runoff away from the ramp to an area where it may infiltrate into the ground before reaching the waterbody.
 - (8) Machinery may operate below the water line only when necessary to excavate or place material below the existing water level and must travel and operate on temporary mats or portions of the ramp that have been constructed.
 - (9) Timing of the activity must conform to the recommendations of biologists from the Department of Inland Fisheries and Wildlife or the Department of Marine Resources, as appropriate, as described in letters submitted along with the notification form.
 - (10) Any debris generated during the work must be prevented from washing downstream and must be removed from the wetland or water body. Disposal of debris must be in conformance with Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A Section 1301 *et seq.*
 - (11) Uncured concrete may not be placed directly into the water. Concrete must be pre-cast and cured at least three weeks before placing in the water or, where necessary, must be placed in forms and cured at least one week before the forms are removed. No washing of tools, forms, etc. may occur in or adjacent to the waterbody or wetland.
 - (12) 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 such a manner as to expose all surfaces to the air for a period of at least 21 days prior to construction. Wood treated with creosote or pentachlorophenol shall not be used where it will contact water.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Emergent marsh vegetation.** Plants that are erect, rooted and herbaceous, and that may be temporarily to permanently flooded at the base, but do not tolerate prolonged inundation of the entire plant; (e.g. cattails, saltmarsh cordgrass).

- (2) **Public natural resource agency.** The Maine Department of Inland Fisheries and Wildlife, the Maine Department of Marine Resources, the Maine DEP, the Maine Department of Conservation, the United States Fish and Wildlife Service, the United States Forest Service, the United States Natural Resources Conservation Service and County Soil and Water Conservation Districts.
- (3) **Project design plan.** A detailed plan of the proposed activity indicating all dimensions (width, height, length) relative to the mean low water mark, and including any appurtenant structures that may be seasonal in nature.

16. Activities in coastal sand dunes

A. Applicability

- (1) This section applies to the following activities in coastal sand dune systems:
 - (a) Repair or replacement of an existing seawall, patio, deck, driveway, walkway, porch or parking area;
 - (b) Dune restoration or construction;
 - (c) Installation or repair of underground utility lines;
 - (d) Construction of a new structure or new development, other than a building or closed fence, in a back dune area;
 - (e) New buildings or an addition to an existing building in a back dune when mitigation and enhancement measures are not required as determined by the DEP;
 - (f) Construction of closed fences in a back dune, non-erosion hazard area;
 - (g) Construction of open fences in a frontal dune or back dune erosion hazard area;
 - (h) Construction of cobble-trapping fences with permanent anchors landward of an existing seawall in a developed area;
 - (i) Construction of a walkway or driveway on existing developed area in a frontal dune; and
 - (j) Installation of underground propane tanks.

PBR applications are reviewed on a case by case basis to determine the concern for damage due to shoreline change. In an area where concern for damage due to shoreline change is identified or mitigation and enhancement measures are required, the applicant is required to file for an individual Natural Resources Protection Act Permit, and is encouraged to contact the DEP for a pre-application meeting.

- (2) This section does not apply to the construction of a new structure or addition to an existing structure in V-Zones.
- (3) This section does not apply to an activity that will not conform to the local shoreland zoning ordinance.

NOTE: Contact the local Code Enforcement Officer for information on local shoreland zoning requirements.

B. Submissions

- (1) The applicant is required to submit photographs of the area in which the activity is proposed.
- (2) Photographs showing the finished activity must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) The following information must be submitted with the notification form.

- (a) A site plan that includes the following information.

- (i) The dimensions and square footage of the lot.

- (ii) The dimensions (including height) and square footage of existing and proposed structures and development e.g. houses, sheds, garages, decks, patios, driveways, parking areas, walkways, lawn, fences, etc. and their location on the lot (see definitions of Building, Footprint and Development in Section 16(D)). The existing and the proposed structures must be clearly distinguished.

- (iii) The location of property lines and names of abutters.

- (iv) The location of buildings on adjacent properties.

For patios, decks, driveways, walkways, porches, and parking areas that are to be repaired or replaced, the site plan must include the length and width of the existing structure, the height of the existing structure if it is elevated and the thickness of the existing structure;

For new buildings or an addition to an existing building in a back dune erosion hazard area, the site plan must include a post foundation designed to meet the requirements of the Department's *Coastal Sand Dune Rules*, 06-096 CMR 355(6)(G);

- (b) A copy of the most recent Coastal Sand Dune Geology Map, produced by the Maine Geological Survey, which contains the project site and has the project site clearly identified on the photo;

NOTE: Maps are available for review at the town offices of most coastal communities and at DEP regional offices. The maps are also available for purchase from the Maine Geological Survey, 22 State House Station, Augusta, ME 04333

- (c) For seawall repair or replacement only, an accurate plan drawn to scale by a licensed surveyor, coastal geologist or professional engineer showing the location of the existing and proposed wall and the elevation of the wall(s) referenced to a nearby permanent and reproducible elevation point, such as a described point on a building or other structure. The plan must be signed and dated by the person responsible for preparing the drawing;

- (d) If moving sand in an area seaward of the frontal dune between April 1 and September 1, a copy of the written approval to proceed from the Department of Inland Fisheries and Wildlife; and
- (e) For open or cobble-trapping fences, a detail showing a typical section of the fence and the dimensions of the fence including the size of the openings.

C. Standards

- (1) No more than 40% of the lot may be covered by development including, but not limited to, buildings, driveways, walkways, parking areas, lawn or landscaped area, and land area previously developed; nor may the total area to be covered by the footprint of buildings exceed 20% of the lot, including existing buildings. Land area within the V-zone may not be included as part of a lot for the purposes of this section.
- (2) Where development that is existing or did exist within one year of application exceeds 40% of the total lot area, the percentage of developed area may not be increased.
- (3) Where the footprint of buildings that are existing or did exist within one year of application exceeds 20% of the total lot area, the percentage of area covered by buildings may not be increased.
- (4) An activity occurring on land adjacent to a coastal wetland, freshwater wetland containing over 20,000 square feet of open water or emergent marsh vegetation, great pond, river, stream or brook must meet the erosion control and setback requirements of Section 2, "Activities adjacent to protected natural resources".
- (5) Building or building additions may not result in a total structure greater than 35 feet in height or have a footprint greater than 2500 square feet. For purposes of determining whether the building is 35 feet high, the starting point for measuring the bottom elevation of the building is described in Chapter 355(5)(D). The top of the building is considered to be the highest point of the building excluding ancillary features such as weathervanes or chimneys that are attached to the building's primary roof but including features such as decks or observation towers that extend higher than the building's primary roof.

NOTE: The Department recommends that projects be constructed according to the Coastal Construction Manual published by the Federal Emergency Management Agency, which describes the best practices for residential construction in coastal areas.

- (6) A building may not be constructed so that any part of the building extends seaward of a line drawn between the seaward most point of buildings on adjacent properties if the construction would significantly obstruct the view from an adjacent building.
- (7) During project construction, disturbance of dune vegetation must be avoided and native vegetation must be retained on the lot to the maximum extent possible. Any areas of dune vegetation that are disturbed must be restored as quickly as possible. Dune vegetation includes American beach grass, rugosa rose, bayberry, beach pea, beach heather and pitch pine.

- (8) No fill may be placed on the project site other than that required for an approved dune restoration project or new construction. Foundation backfill and sand dune restoration and construction must utilize sand that has textural and color characteristics consistent with the natural sand's textural and color characteristics.
- (9) No sand may be moved seaward of the frontal dune between April 1 and September 1, unless written approval from the Department of Inland Fisheries and Wildlife has been obtained.
- (10) An activity involving dune restoration or dune construction must be performed between March 1 and April 1 or October 1 and November 15. Dune grass must be planted immediately after construction. Dune grass must be planted with 3 culms per hole. The holes must be spaced 18 inches apart. The planted dune grass must be protected from pedestrian traffic until the dune grass is well established. The density of the growing stand of dune grass must be at least 40 plants per 100 square feet.
- (11) A dune restoration/construction activity must use sand that has textural and color characteristics consistent with the natural sand's textural and color characteristics.
- (12) A dune restoration or dune construction activity must minimize damage to existing dune vegetation and must follow the configuration and alignment of adjacent dunes as closely as possible. No sand or other materials may be placed below the normal high tide line.
- (13) The replacement of a seawall may not increase the height, length or thickness dimensions of a seawall beyond that which legally existed within 24 months of submission of the notification form. The replaced seawall may not be significantly different in construction from the one that previously existed.
- (14) A private walkway must be 4 feet or less in width. A public walkway must be 10 feet or less in width. Walkways must allow for sand movement and may not have a significant impact on vegetation outside of the footprint of the walkway. No portion of the walkway may be located in the V-Zone.
- (15) The repair or replacement of a patio, deck, driveway, walkway, porch or parking area may not increase the height, length, width or thickness dimensions of the existing structure. The new or repaired patio, deck, driveway, walkway, porch or parking area may be constructed of a different material provided the dimensions remain the same.
- (16) All proposed construction and development activity is limited to the location and extent depicted on the plan or drawing submitted pursuant to subsection B(3) of this section.
- (17) An open fence must have openings that allow for the easy movement of water, wind and sand. If a picket board fence is proposed, the opening must be at least 4 inches wide or at least double the width of the picket board, whichever is greater. A continuous footing may not be used to support the fence and support posts may not be larger than 4 inches by 4 inches.
- (18) A cobble-trapping fence may only be placed on properties that are adjacent to beaches with gravel and cobble sediment and have developed areas such as lawn between the building and the beach. Such a fence may not be placed on a naturally vegetated frontal dune ridge.

(19) A cobble-trapping fence must be placed landward of an existing seawall in a developed area, must not extend more than two feet beyond the building's foundation on either side, must not consist of more than one row of fencing, must not have openings smaller than 2 inches square or in diameter, and must not be higher than 4 feet above grade. The fence may be supported by permanent, small subsurface pipes or similar emplacements that are left in place all year. A permanent, continuous footing may not be used to support the fence. Cobbles and sediment trapped by the fence may be removed and placed immediately seaward of a frontal dune or seawall on the property.

(20) Underground propane tanks must be placed under an existing structure on the parcel.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Back dunes.** Back dunes consist of sand dunes and eolian sand flats that lie landward of the frontal dune or a low energy beach. Back dunes include those areas containing artificial fill over back dune sands or over wetlands adjacent to the coastal sand dune system.
- (2) **Beach.** The zone of unconsolidated sand or gravel that extends landward from the mean low water line to the seaward toe of a dune. The definition of beach includes the beach face and berm.
- (3) **Beach nourishment.** *(Deleted)*
- (4) **Berm.** The flat or gently sloping area between the high tide limit and frontal dune. A berm is formed by deposition of sand transported to shore by tides, waves, wind and currents.
- (5) **Building.** A structure designed for habitation, shelter, storage, or as a gathering place that has a roof. For the purposes of this rule, the foundation is considered to be a part of the building. A porch with a roof, attached to the exterior walls of a building, is considered part of the building.
- (6) **C-zone.** *(Deleted)*
- (7) **Closed fence.** A fence that effectively blocks the movement of wind, water, or sand, such as a stockade fence or snow fence.
- (8) **Cobble.** A rock that is smaller than a boulder and larger than gravel.
- (9) **Cobble-trapping fence.** An open fence with a continuous porosity equal to or greater than 50% that is designed to prevent cobbles from passing through it .
- (10) **Development.** The alteration of property for human-related use including, but not limited to, buildings, decks, driveways, parking areas, lawns, landscaped areas, and areas of non-native vegetation, and any other appurtenant facilities, but excluding temporary structures.
- (11) **Dune vegetation.** Dune plant species typically adapted to Maine's coastal sand dune systems including, but not limited to, American beach grass, rugosa rose, bayberry, beach pea, beach heather and pitch pine.

(12) Erosion hazard area

- (a) Any portion of the coastal sand dune system that can reasonably be expected to become part of a coastal wetland in the next 100 years due to cumulative and collective changes in the shoreline from:
 - (i) Historical long-term erosion;
 - (ii) Short-term erosion resulting from a 100-year storm; or
 - (iii) Flooding in a 100-year storm after a two-foot rise in sea level; or
 - (b) Any portion of the coastal sand dune system that is mapped as an AO flood zone by the effective FEMA Flood Insurance Rate Map, which is presumed to be located in an Erosion Hazard Area unless the applicant demonstrates based on site-specific information, as determined by the DEP, that a coastal wetland will not result from either (i), (ii), or (iii) occurring on an applicant's lot given the expectation that an AO-Zone, particularly if located immediately behind a frontal dune, is likely to become a V-Zone after 2 feet of sea level rise in 100 years.
- (13) **Footprint.** The outline that would be created on the ground by extending the exterior walls of the building to the ground surface.
- (14) **Foundation.** The portion of a structure that transmits the loads of the structure to the ground, including but not limited to: spread footings, foundation walls, posts, piers, piles, beams, girders, structural slabs, bracings, and associated connectors.
- (15) **Frontal dune.** The frontal dune is the area consisting of the most seaward ridge of sand and gravel and includes former frontal dune areas modified by development. Where the dune has been altered from a natural condition, the dune position may be inferred from the present beach profile, dune positions along the shore, and regional trends in dune width. The frontal dune may or may not be vegetated with dune vegetation and may consist in part or in whole of artificial fill. In areas where smaller ridges of sand are forming in front of an established dune ridge, the frontal dune may include more than one ridge.
- (16) **Land adjacent to a protected natural resource.** Any land area within 75 feet, measured horizontally, of the normal high water line of a great pond, river, stream or brook or the upland edge of a coastal wetland or freshwater wetland.
- (17) **Lot.** Also referred to as a lot of record, all contiguous areas under a single present ownership as indicated by a deed and recorded in the registry of deeds constituting a piece of land measured and marked by metes and bounds descriptions or by some other approved surveying technique.
- (18) **Open fence.** A fence through which water, wind and sand can easily move, for example, a split rail fence.
- (19) **Permanent structure** (also referred to as a “structure” in this section). Any structure constructed or erected with a fixed location or attached to a structure with a fixed location for a period exceeding 7 months each year. Permanent structures include, but are not limited to:

causeways, piers, docks, concrete slabs, piles, marinas, retaining walls, buildings, swimming pools, fences, seawalls, roads, driveways, parking areas, and walkways. Natural features, such as frontal dunes, are not considered permanent structures. For the purposes of this section, open decks and storage sheds that comply with the criteria outlined below are not considered to be structures.

- (a) Open decks that: do not exceed a total of 200 square feet, including any existing decks on the property, are not located in a V-Zone, are supported by posts, and are elevated at least 3 feet above existing grade to allow unobstructed flow of sand, wind and water. One set of outside stairs, attached to the deck, will be considered part of the open deck but not included when determining the 200 square foot area.
 - (b) One storage shed per lot that does not exceed 100 square feet, provided that it is not located in a V-Zone and that it is not converted to a habitable structure.
- (20) **Posts.** Any pilings or column supports that allow water and sand to move freely underneath the structure, and that are adequate to provide a foundation for the structure they supports. The term “post” does not include frost walls or breakaway foundation construction.
- (21) **Seawall.** Vertical wall, or other sloped barrier that separates land from water areas, commonly constructed out of rocks, wood, concrete or other similar materials, generally built for the purpose of protecting structures or property from shoreline erosion caused by wave or current action. A seawall is presumed to be a permanent structure.
- (22) **V-Zone.** That land area of special flood hazard subject to a one- percent or greater chance of flooding in any given year, and subject to additional hazard from high velocity water due to wave action. Wave heights or wave run-up depths are equal to or greater than 3 feet in V-Zones. V-Zones are as identified on the effective Flood Insurance Rate Maps and any subsequent Letters of Map Changes issued by FEMA.

17. Transfers and permit extensions

A. Applicability

- (1) This section allows an individual permit, general permit or tier review approval issued under the Natural Resources Protection Act to be transferred from the permittee to the applicant when the permitted project changes ownership.
- (2) This section allows an individual permit, general permit or tier review approval issued under the Natural Resources Protection Act to be extended one time provided the approved activity has not begun and the permit has not expired. This section does not apply to an extension request for a permit previously extended under this chapter.

B. Submissions

- (1) For a transfer, the applicant must submit an affidavit attesting to the fact that he or she has received, read, understand and will comply with the terms of the DEP Order(s) and conditions of approval for the activity.

- (2) For a transfer, the applicant must submit a copy of the order(s) to be transferred as well as a copy of documents establishing proof of ownership of the property on which the activity is located or sufficient title, right or interest to complete the activity in accordance with the requirements of the permit and the NRPA.
- (3) For a transfer, the original permittee must submit a statement attesting that he or she agrees to the transfer of his or her permit to the applicant.
- (4) For a transfer of a project that requires compensation, the applicant must submit documentation that demonstrates sufficient expertise and financial resources to complete the approved compensation work, including subsequent monitoring and corrective actions.
- (5) For permit extensions, a copy of the order(s) to be extended shall be submitted to the Department along with a written reason for the extension request.

C. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Affidavit.** A written declaration made under oath before a notary public.
- (2) **Extension.** A DEP approval to extend an unexpired permit. An extension is valid for 2 years.

18. Maintenance dredging permit renewal

A. Applicability

- (1) This section applies to the renewal of an individual permit issued by the DEP for maintenance dredging in a coastal wetland, great pond and river, stream or brook provided that:
 - (a) The area to be dredged is located in an area that was dredged within the last ten years;
 - (b) The permit to be renewed was an individual Natural Resources Protection Act permit. If the most recent dredge was permitted under a PBR, this section does not apply;
 - (c) The area to be dredged is not located in or within 250 feet of an area identified as significant wildlife habitat by the Department of Inland Fisheries and Wildlife;

NOTE: Contact the nearest regional office of the Maine Department of Inland Fisheries and Wildlife for more information

- (d) Less than 50,000 cubic yards will be dredged.
- (2) This section does not apply to the renewal of a permit issued by the DEP for gravel mining in any protected natural resource.

NOTE:

- (1) Displacement or bulldozing of sediment within a lobster pound does not require a Natural Resources Protection Act permit provided that the sediment is not removed from the area inundated as a result of the impoundment, 38 M.R.S.A. Section 480-Q(19).

- (2) Any activity involving dredging may require a permit from the US Army Corps of Engineers. A copy of the PBR notification should be submitted to the Corps of Engineers for these activities (US Army Corps of Engineers, RR 2 Box 1855, Manchester, ME 04351).
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B. Submissions

- (1) A copy of the permit issued for the most recent maintenance dredging must be submitted to the DEP with the notification form.
- (2) For a dredge activity in tidal waters, notice of approval of the timing of the activity from the Department of Marine Resources must be submitted to the DEP with the notification form.

C. Standards

- (1) The dimensions of the area proposed to be dredged may not exceed previously approved dimensions and dredging must be conducted in the same location.
- (2) All conditions previously attached to the original permit are incorporated into the permit by rule unless otherwise stated by the DEP in writing.
- (3) For a dredge activity in tidal waters, the activity must occur during the time period approved by the Department of Marine Resources.
- (4) Any debris or dredged material generated during the activity may not be disposed of in any protected natural resource unless otherwise allowed in this chapter and the disposal conforms with the Maine Hazardous Waste, Septage and Solid Waste Management Act, 38 M.R.S.A. Sections 1301 *et seq.*

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise:

- (1) **Dredge.** To move or remove, by digging scooping or suctioning any sand, silt, mud, gravel, rock, or other material from the bottom of a water body or wetland surface.
- (2) **Dredge spoils.** Sand, silt, mud, gravel rock or other sediment or material that is moved from coastal wetlands, great ponds or rivers, streams or brooks.

19. Activities in, on or over significant vernal pool habitat

A. Applicability

- (1) This section applies to activities in, on, or over a significant vernal pool habitat or a potential significant vernal pool habitat. Significant vernal pool habitat consists of a vernal pool depression and the portion of the critical terrestrial habitat within a 250 foot radius of the spring or fall high water mark of the depression.

NOTE: The 250 feet of critical terrestrial habitat protected as significant vernal pool habitat is only a portion of the habitat used by adult wood frogs, ambystomatid salamanders, and threatened and endangered species. Tracking studies of adult pool-breeding amphibians have shown that they can travel over a third-mile away from their breeding pool, and that

a radius of 750 feet around the pool is optimal for protecting viable amphibian populations. The DEP encourages efforts to protect more habitat adjacent to a vernal pool than this regulation has authority over.

- (2) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of a permit issued under the Site Location of Development Law, 38 M.R.S.A. Sections 481 to 490, the Stormwater Management Law, 38 M.R.S.A. Section 420-D, or the Natural Resources Protection Act, 38 M.R.S.A. Section 480-A to BB.
-

NOTE: For additional regulatory provisions applicable to significant vernal pools, see 06-096 CMR 335, Significant Wildlife Habitat.

B. Submissions. The following items must be submitted with the notification, unless otherwise provided below.

- (1) Photographs of the area that will be affected by the activity proposed.
- (2) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) A scaled plan or drawing of the area affected, including but not limited to the following information:
 - (a) The entire property on which the activity will take place, including property lines, the vernal pool depression and remaining surrounding significant vernal pool habitat within 250 feet of the spring or fall high water mark of the depression, and the boundaries and location of other protected natural resources such as streams and other wetlands;
 - (b) Proposed activity and existing development on which the activity will take place, including buildings, parking areas, roads, fill areas, landscaped areas, etc.; and
 - (c) Any site constraints limiting development beyond the significant vernal pool habitat, such as steep slopes.

It is not necessary to have the plan formally prepared. However, it must be legible and drawn to a scale that allows a clear representation of distances and measurements on the plan.

C. Standards. The following measures must be taken during construction and maintenance of the activity.

- (1) No disturbance within the vernal pool depression.
- (2) Except for activities in existing developed areas, maintain a minimum of 75% of the critical terrestrial habitat as unfragmented forest with at least a partly-closed canopy of overstory trees to provide shade, deep litter and woody debris.
- (3) Maintain or restore forest corridors connecting wetlands and significant vernal pools.

- (4) Minimize forest floor disturbance.
- (5) Maintain native understory vegetation and downed woody debris.

In determining whether the standard in Section 19(C)(2) has been met, the DEP considers only that portion of the critical terrestrial habitat within the significant vernal pool habitat, which is the area within a 250 foot radius of the spring or fall high water mark of the vernal pool depression.

- (6) Take the following measures to prevent erosion of soil or fill material from disturbed areas:
 - (a) Staked hay bales or silt fence must be properly installed at the edge of disturbed areas between the activity and the vernal pool depression before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;
 - (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
 - (d) All disturbed soils must be permanently stabilized; and
 - (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (7) An activity of a type that would qualify for a permit by rule under one of the other sections of this chapter listed below, notwithstanding any restriction concerning significant wildlife habitat that may be in that section, must also meet the requirements of that section.

- Sec. 4. Replacement of structures
- Sec. 9. Crossings (utility lines, pipes, cables)
- Sec. 10. Stream crossings (bridges, culverts, fords)
- Sec. 11. State transportation facilities
- Sec. 12. Restoration of natural areas.
- Sec. 13. Habitat creation or enhancement and water quality improvement activities
- Sec. 15. Public boat ramps
- Sec. 16. Coastal sand dune projects

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise.

- (1) **Critical terrestrial habitat.** Uplands and wetlands associated with significant vernal pools used by pool breeding amphibians for migration, feeding, and hibernation, in particular, forested wetlands and forested uplands that provide deep organic litter, coarse woody debris and canopy shade.

- (2) **Existing developed area.** The area of property altered including, but not limited to, buildings, driveways, parking areas, wastewater disposal systems, lawns and other landscaped areas, as of September 1, 2007.
- (3) **Significant vernal pool habitat.** A vernal pool depression and the portion of the critical terrestrial habitat within a 250 foot radius of the spring or fall high water mark of the depression. For complete criteria, see Chapter 335(9), Significant vernal pools.
- (4) **Vernal pool depression.** This area includes the vernal pool depression up to the spring or fall high water mark, and includes any vegetation growing within the depression.

20. Activities located in, on or over high or moderate value inland waterfowl and wading bird habitat, or shorebird nesting, feeding, and staging areas

A. Applicability

- (1) This section applies to activities in existing developed areas located in, on, or over high or moderate value inland waterfowl and wading bird habitat, or shorebird nesting, feeding, and staging areas.
- (2) This section applies to an expansion of up to 10% of an existing development area within a high or moderate value inland waterfowl and wading bird habitat, or a shorebird feeding area, if an individual permit is not otherwise required for activity on the parcel.
- (3) This section applies to activities consisting of cutting or removal of vegetation within high or moderate value inland waterfowl and wading bird habitat, or shorebird feeding or roosting buffer.
- (4) This section applies to new activities, such as the construction of buildings, roads, and driveways, in an upland area on a lot in moderate value inland waterfowl and wading bird habitat and that contains no Development area.

NOTE: If exterior lighting is anticipated to extend into the habitat within the 150 foot setback, the Department may request a detailed lighting plan.

- (5) This section does not apply to an activity that is not or will not be in compliance with the terms and conditions of a permit issued under the *Site Location of Development Law*, 38 M.R.S.A. §§ 481–490, the *Stormwater Management Law*, 38 M.R.S.A. §420-D, or the *Natural Resources Protection Act*, 38 M.R.S.A. §§ 480-A–480-FF.
- (6) This section does not apply to an activity that does not conform to the local shoreland zoning ordinance.

NOTE: For additional regulatory provisions applicable to significant wildlife habitats, see *Significant Wildlife Habitat*, 06-096 CMR 335 (last amended June 8, 2006).

B. Submissions. The following items must be submitted with the notification, unless otherwise provided below.

- (1) Photographs of the area that will be affected by the activity proposed.

- (2) Photographs showing the completed project and the affected area must be submitted within 20 days of the activity's completion. The photographs must be sent with a copy of the notification form or labeled with the applicant's name and the town in which the activity took place.
- (3) A scaled plan or drawing of the area affected, including information such as the following.
 - (a) The entire property on which the activity will take place, including property lines, and the boundaries and location of protected natural resources such as streams, and wetlands, as well as significant wildlife habitat (specify type of significant wildlife habitat).
 - (b) Proposed activity and existing development on which the activity will take place, including buildings, parking areas, roads, fill areas, landscaped areas, etc. If up to a 10% expansion of an existing developed area is proposed within a high or moderate value inland waterfowl and wading bird habitat, or a shorebird feeding area, indicate the existing developed area and proposed expansion.

It is not necessary to have the plan formally prepared. However, it must be legible and drawn to a scale that allows a clear and accurate representation of distances and measurements on the plan.

- (4) For cutting or removal of vegetation in a shorebird roosting buffer, notice of approval of the activity from the Department of Inland Fisheries and Wildlife (IF&W) must be submitted to the DEP with the notification form. The IF&W approval may specify the location of the activity or other conditions of approval.
- (5) For any work in, on or over a shorebird nesting, feeding, and staging area that would occur between July 15 and September 15, notice of approval of the timing of the activity from the Department of Inland Fisheries and Wildlife must be submitted to the DEP with the notification form.
- (6) For new activities in a moderate value inland waterfowl and wading bird habitat that take place between April 15 and July 31 of any year, notice of approval of the timing of the activity from the Department of Inland Fisheries and Wildlife must be submitted to the DEP with the notification form.

C. Standards

- (1) For activities in, on or over a shorebird nesting, feeding, and staging area between July 15 and September 15, the activity must occur during the time period approved by the Department of Inland Fisheries and Wildlife.
- (2) The following measures must be taken to prevent erosion of soil or fill material from disturbed areas into the resource:
 - (a) Staked hay bales or silt fence must be properly installed at the edge of disturbed areas between the activity and the undeveloped area before the activity begins;
 - (b) Hay bales or silt fence barriers must be maintained until the disturbed area is permanently stabilized;

- (c) Within 7 calendar days following the completion of any soil disturbance, and prior to any storm event, mulch must be spread on any exposed soils;
- (d) All disturbed soils must be permanently stabilized; and
- (e) Within 30 days of final stabilization of the site, any silt fence must be removed.

NOTE: For guidance on erosion and sedimentation controls, consult the Maine Erosion and Sediment Control BMPs, dated March 2003. This handbook and other references are available from the DEP.

- (3) An activity of a type that would qualify for a permit by rule under one of the sections listed below must also meet the requirements of that section.

- Sec. 3. Intake pipes
- Sec. 4. Replacement of structures
- Sec. 6. Movement of rocks or vegetation
- Sec. 7. Outfall pipes
- Sec. 8. Shoreline stabilization
- Sec. 9. Crossings (utility lines, pipes, cables)
- Sec. 10. Stream crossing (bridges, culverts, fords)
- Sec. 11. State transportation facilities
- Sec. 12. Restoration of natural areas
- Sec. 13. Habitat creation or enhancement and water quality improvement activities
- Sec. 15. Public boat ramps
- Sec. 16. Coastal sand dune projects
- Sec. 18. Maintenance dredging renewal permit

- (4) Except for cutting or removal of vegetation allowed pursuant to paragraph C(6) of this section, cutting or removal of vegetation within a high or moderate value inland waterfowl and wading bird habitat, or shorebird roosting buffer, is limited to:

- (a) Removal of a safety hazard; or
- (b) Cutting or removal of vegetation to allow for a footpath not to exceed 6 feet in width as measured between tree trunks and shrub stems. The footpath may not result in a cleared line of sight to the water.

Any cutting or removal of vegetation within a shorebird roosting buffer under this paragraph must be done in consultation with and as approved by the Department of Inland Fisheries and Wildlife.

- (5) Cutting or removal of vegetation within a shorebird feeding buffer must meet the vegetative screening standards set forth in *Mandatory Shoreland Zoning*, 38 M.R.S.A. §439-A(6). In interpreting and enforcing these standards, the department shall rely upon the department's shoreland zoning rules regarding cutting or removal of vegetation for activities other than

timber harvesting¹ and apply the cutting standards applicable within 75 feet of a coastal wetland to the entire 100-foot feeding buffer.

- (6) New activities in an upland area on a lot in a moderate value inland waterfowl and wading bird habitat and that contains no Development area must meet the following standards:
- (a) New structures must be located a minimum of 150 feet landward of the upland edge or forested wetland edge of the inland wetland complex within the waterfowl and wading bird habitat;
 - (b) Beyond 150 feet from the upland edge or forested wetland edge of the inland wetland complex within the waterfowl and wading bird habitat, no more than 20 % of the applicant's land within the habitat may be cleared or developed;
 - (c) Within 150 feet of the upland edge or forested wetland edge of the inland wetland complex within the waterfowl and wading bird habitat, cutting and removal of vegetation is limited to those activities described in Paragraphs C(4)(a) and (b) of this section.
 - (d) No construction or clearing activity may take place from April 15 through July 31 of any year unless otherwise approved by the Maine Department of Inland Fisheries and Wildlife.
- (7) All work is limited to the location and extent depicted on the plan or plans submitted pursuant to subsection B(3) of this section.

D. Definitions. The following terms, as used in this chapter, have the following meanings, unless the context indicates otherwise.

- (1) **Development area.** The area of property altered including, but not limited to, buildings, driveways, parking areas, wastewater disposal systems, lawns and other landscaped areas, as of June 8, 2006. "Developed area" has the same meaning as "development area".
- (2) **Inland high or moderate value waterfowl and wading bird habitat.** A high to moderate value inland habitat is an inland wetland complex, and a 250 foot wide zone surrounding the wetland complex, that through a combination of dominant wetland type, wetland diversity, wetland size, wetland type interspersion, and the percent of open water meets IF&W guidelines or is an inland wetland complex that has documented outstanding use by waterfowl or wading birds. See Chapter 335(10)(A) for complete criteria.
- (3) **Shorebird nesting, feeding, and staging areas.** Shorebird nesting, feeding, and staging areas, and a zone surrounding those areas as described in paragraphs (4) and (5), are significant wildlife habitats. Shorebird species include the members of the families Scolopacidae, Charadriidae, and Haematopodidae, including, but not limited to, sandpipers and plovers. See Chapter 335(11) for complete criteria.

¹ *Guidelines for Municipal Shoreland Zoning Ordinances*, 06-096 CMR 1000(15)(P) (chapter last amended May 1, 2006).

- (4) **Shorebird feeding area.** A shorebird feeding or staging area that is not a roosting area. The shorebird feeding area includes a 100-foot-wide surrounding buffer referred to as the feeding buffer.
- (5) **Shorebird roosting area.** A shorebird feeding or staging area that is also a roosting area. The shorebird roosting area includes a 250-foot-wide surrounding buffer referred to as the roosting buffer.
- (6) **Structure.** Anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground. Examples of structures include buildings, utility lines and roads.

NOTE: The significant wildlife habitats subject to this section are depicted on GIS data layers maintained by IF&W and available from either IF&W or the DEP.

STATUTORY AUTHORITY: 38 M.R.S.A., Section 480-H & 341-D(1)

EFFECTIVE DATE:

February 15, 1989

AMENDED:

March 23, 1991

April 11, 1992

May 19, 1992

May 1, 1995

EFFECTIVE DATE (ELECTRONIC CONVERSION):

May 4, 1996

NON-SUBSTANTIVE CORRECTIONS:

May 12, 1997 - punctuation, formatting, comparison with May 14, 1995 amendment

October 29, 1998 - APA Office Note added to first Section 5

AMENDED:

June 1, 1999

July 16, 1999 (EMERGENCY, expires October 14, 1999) - Section 10(A)

October 15, 1999 - language reverted to June 1, 1999 version

February 14, 2000 - Section 10

NON-SUBSTANTIVE CORRECTIONS:

November 23, 2000 - removed erroneous April 21, 1995 amendment date

AMENDED:

September 1, 2002

NON-SUBSTANTIVE CORRECTIONS:

September 5, 2002 - title of Section 2 only

AMENDED:

May 25, 2005 – filing 2005-174

December 5, 2006 – filing 2006-496

February 25, 2008 – Section 20 only, filing 2008-88

July 15, 2009 – filing 2009-339

July 30, 2011 – Section 16 only, filing 2011-211 (*Final adoption, major substantive*)

June 8, 2012 – filing 2012-146 (*Final adoption, major substantive*)