

Updated 11/05/14

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, November 2014 Edition.*

NOTICE

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

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

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

The downloading of bid packages from the MDOT website is not the same as providing an electronic bid to the Department. Electronic bids must be submitted via <http://www.BIDX.com>. For information on electronic bidding contact 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 submitting questions concerning specific Contracts that have been advertised for Bid, include additional numbered pages as required. RFI’s may be faxed to 207-624-3431, submitted electronically through the Departments web page of advertised projects by selecting the RFI tab on the project details page or via e-mail to RFI-Contracts.MDOT@maine.gov.

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

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

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 **Removal of Mounds of Excavation** in the city of **Portland**" 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 March 30, 2016 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: Maine State Project No. 22809.31, WIN. 022809.31

Location: In Cumberland County, project is located at the International Marine Terminal on West Commercial St. in Portland, Me.

Outline of Work: Removal of Mounds of Excavated material and haul to an approved landfill and other incidental work.

For general information regarding Bidding and Contracting procedures, contact George Macdougall at (207) 624-3410. Our webpage at <http://www.maine.gov/mdot/contractors/> contains a copy of the Schedule of Items, Plan Holders List, written portions of bid amendments, drawings, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Project Manager** Joel Kittredge at (207) 624-3431, use electronic RFI form or email questions to RFI-Contracts.MDOT@maine.gov, project name and identification number should be in the subject line. Questions received after 12:00 noon of Monday 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 and at the Department of Transportation's Regional Office in Scarborough. 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. Bid Book \$10 (\$13 by mail), 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 \$25,000.00 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, November 2014 Edition", price \$10 [\$15 by mail], and Standard Details, November 2014 Edition, price \$10 [\$15 by mail]. They also may be purchased by telephone at (207) 624-3536 between the hours of 8:00 a.m. to 4:30 p.m. Standard Detail updates can be found at <http://www.maine.gov/mdot/contractors/publications/>.

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

Augusta, Maine
March 16, 2016



WILLIAM PULVER P. E.
DIRECTOR PROJECT DEVELOPMENT

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: 022809.31

Project(s): 022809.31

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	203.20 COMMON EXCAVATION	6,300.000 CY	_____	 _____	_____	 _____
0020	203.2312 HEALTH AND SAFETY PLAN	LUMP SUM	LUMP SUM		_____	 _____
0030	203.2333 DISPOSAL OF SPECIAL EXCAVATION	11,910.000 T	_____	 _____	_____	 _____
0040	618.14 SEEDING METHOD NUMBER 2	45.000 UN	_____	 _____	_____	 _____
0050	619.12 MULCH	45.000 UN	_____	 _____	_____	 _____
0060	652.34 CONE	30.000 EA	_____	 _____	_____	 _____
0070	652.35 CONSTRUCTION SIGNS	240.000 SF	_____	 _____	_____	 _____
0080	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	14.000 CD	_____	 _____	_____	 _____
0090	652.38 FLAGGER	300.000 HR	_____	 _____	_____	 _____
0100	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM	LUMP SUM		_____	 _____
0110	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, **WIN 22809.31 for Excavated Mound Removal in the city of Portland, County of Cumberland, 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 **May 20, 2016.** 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, November 2014 Edition and related Special Provisions.

C. Price.

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

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

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

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

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the 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 November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN 22809.31 for Excavated Mound Removal in the city of Portland, County of Cumberland, 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, November 2014 Edition, and as addressed in the contract documents.

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

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications November 2014 Edition 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, **WIN 22809.31 for Excavated Mound Removal in the city of Portland, County of Cumberland, 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 **May 20, 2016.** 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, November 2014 Edition and related Special Provisions.

C. Price.

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

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

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

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

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the 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 November 2014 Edition, Standard Details November 2014 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

WIN 22809.31 for Excavated Mound Removal in the city of Portland, County of Cumberland, 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, November 2014 Edition, and as addressed in the contract documents.

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

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications November 2014 Edition 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, November 2014 Edition and related Special Provisions.

C. Price.

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

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition, Supplemental Specifications, Special Provisions, Contract Agreement, and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

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

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications November 2014 Edition (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications, November 2014 Edition, Standard Details November 2014 Edition, 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, November 2014 Edition, and as addressed in the contract documents.

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

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications November 2014 Edition and complete the Work within the time limits given in the Special Provisions of this Contract.

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

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

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

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

Date

(Witness Sign Here)
Witness

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

(Print Name Here)
(Name and Title Printed)

CONTRACTOR

G. Award.

Your offer is hereby accepted. documents referenced herein.

This award consummates the Contract, and the

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: 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

.....

**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 ----- WIN.22809.31 Removal of Mounds of Excavation at Intermodal Facility

Location of Project – Portland, Cumberland County

**2016 Fair Minimum Wage Rates
Highway & Earthwork Cumberland County**

<u>Occupation Title</u>	<u>Minimum Wage</u>	<u>Minimum Benefit</u>	<u>Total</u>	<u>Occupation Title</u>	<u>Minimum Wage</u>	<u>Minimum Benefit</u>	<u>Total</u>
Asphalt Raker	\$15.00	\$0.00	\$15.00	Ironworker – Structural	\$23.20	\$6.20	\$29.40
Backhoe Loader Operator	\$19.00	\$3.03	\$22.03	Laborers (Incl. Helpers & Tenders)	\$14.00	\$0.37	\$14.37
Blaster Ordinance Handling & Explosives	\$19.75	\$2.02	\$21.77	Laborer – Skilled	\$16.00	\$1.04	\$17.04
Boom Truck (Truck Crane) Operator	\$21.00	\$2.85	\$23.85	Line Erector – Power/Cable Splicer	\$25.88	\$5.88	\$31.76
Bulldozer Operator	\$18.00	\$3.24	\$21.24	Loader Operator – Front End	\$17.25	\$2.89	\$20.14
Carpenter	\$20.00	\$1.63	\$21.63	Mechanic – Maintenance	\$18.50	\$1.95	\$20.45
Carpenter – Rough	\$18.00	\$1.15	\$19.15	Mechanic – Refrigeration	\$22.00	\$3.54	\$25.54
Concrete Mixing Plant Operator	\$20.00	\$4.46	\$24.46	Painter	\$18.00	\$3.33	\$21.33
Concrete Pump Operator	\$20.00	\$0.00	\$20.00	Paver Operator	\$18.00	\$0.00	\$18.00
Crane Operator <15 Tons	\$18.61	\$2.97	\$21.58	Pipe Layer	\$19.33	\$2.37	\$21.70
Crane Operator =>15 Tons	\$24.50	\$6.61	\$31.11	Pump Installer	\$25.00	\$4.67	\$29.67
Crusher Plant Operator	\$16.50	\$4.72	\$21.22	Reclaimer Operator	\$21.00	\$11.34	\$32.34
Driller – Rock	\$19.25	\$4.30	\$23.55	Roller Operator – Earth	\$11.75	\$0.30	\$12.05
Dry-Wall Applicator	\$21.50	\$2.63	\$24.13	Roller Operator – Pavement	\$17.03	\$1.02	\$18.05
Earth Auger Operator	\$23.00	\$0.00	\$23.00	Screed/Wheelman	\$19.00	\$1.79	\$20.79
Electrician – Licensed	\$26.00	\$13.87	\$39.87	Sider	\$23.00	\$1.77	\$24.77
Excavator Operator	\$18.90	\$2.32	\$21.22	Stone Mason	\$17.80	\$0.00	\$17.80
Fence Setter	\$15.25	\$1.32	\$16.57	Truck Driver – Light	\$13.50	\$0.00	\$13.50
Flagger	\$9.00	\$0.00	\$9.00	Truck Driver – Medium	\$16.00	\$0.52	\$16.52
Grader/Scraper Operator	\$18.00	\$1.04	\$19.04	Truck Driver – Heavy	\$15.00	\$0.99	\$15.99
Highway Worker/Guardrail Installer	\$15.00	\$1.16	\$16.16	Truck Driver – Tractor Trailer	\$16.50	\$1.07	\$17.57
Hot Top Plant Operator	\$23.60	\$9.48	\$33.08	Truck Driver – Mixer (Cement)	\$12.50	\$4.01	\$16.51

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-040-2016
Filing Date: February 18, 2016
Expiration Date: 12-31-2016

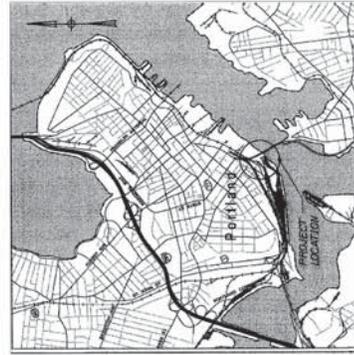
A true copy
Attest: 
Pamela Megathlin
Director
Bureau of Labor Standards

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



CITY OF PORTLAND
CUMBERLAND COUNTY
WEST COMMERCIAL STREET INTERMODAL FACILITY
IMT MOUND REMOVAL

WIN: 022809.31

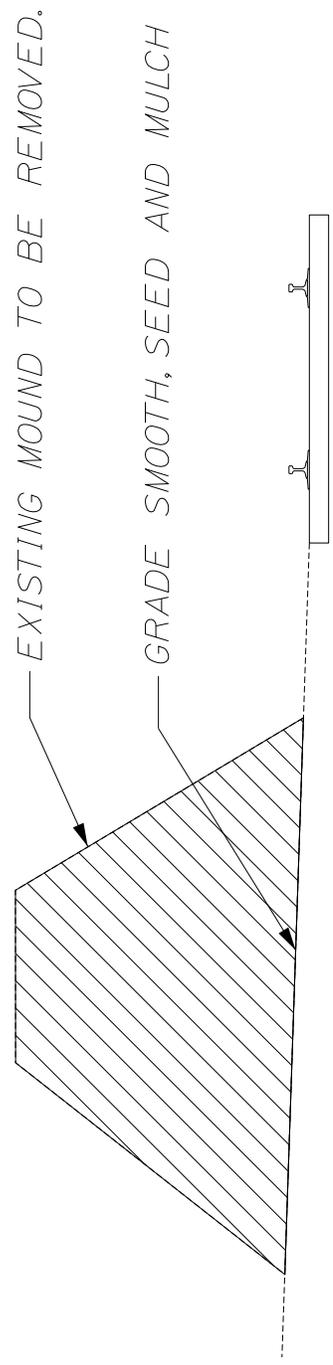


STATE OF MAINE DEPARTMENT OF TRANSPORTATION APPROVED: _____ DATE: 3/14/16 COMMISSIONER: _____ CHIEF ENGINEER: _____		PROFESSIONAL ENGINEER STATE OF MAINE JEFFREY TWEDDE No. 9544	PROJECT INFORMATION PROGRAM: IMT MOUND PROJECT MANAGER: JEFF C. KIRKHOFF DESIGNER: CHARLES QUIT ET P.E. NUMBER: 9544 DATE: MARCH 4, 2016	PROJECT COMPLETION DATE: _____ CONTRACTOR: _____ PROJECT DESIGN: _____ CONTRACT: _____ DESIGNER: _____ PORTLAND CUMBERLAND COUNTY TITLE SHEET	SHEET NUMBER 1 OF 1
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WIN 022809.31

NOT TO SCALE

NOTE: MOUNDS ON MAP 4 ARE NOT
 ADJACENT TO RAILROAD TRACKS



TYPICAL SECTION
 NOT TO SCALE

GENERAL NOTES

- 1) All inslope and ditches in cut areas shall be graded as shown on the typicals or flatter, or as directed by the Resident.
- 2) No existing drainage shall be abandoned, removed or plugged without prior approval of the Resident.
- 3) Any damage to the slopes caused by the contractor's equipment, personnel, or operation shall be repaired to the satisfaction of the resident. All work, equipment, and materials required to make repairs shall be at the contractor's expense.
- 4) Plans of previously constructed projects are available on request.
- 5) Additional excavation for the contractor's convenience or to comply with backsloping requirements will not be paid for directly but will be considered incidental to the related drainage items.
- 6) "Undetermined Locations" shall be determined by the Resident.
- 7) All work shall be done in accordance with the Maine Department of Transportation's Best Management Practices for Erosion & Sedimentation Control, February, 2008.
- 8) Vehicles on site will be limited to **10 MPH**.

**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 his work accordingly.

MEETING

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

GENERAL INFORMATION

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

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

Overview:

Utility/Railroad	Aerial	Underground	Railroad
Time Warner Cable	X		
Central Maine Power Company	X	X	
Fairpoint	X	X	
MaineCom Services	X		
Oxford Networks	X		
MDOT		X	X
Portland Sewer District		X	
Portland Water District		X	
Pan Am Railroad			X
Unitil		X	
Portland Drainage		X	

Temporary utility adjustments are **not** anticipated. If temporary relocation becomes necessary, sufficient time will need to be allowed prior to the construction for all required temporary relocation.

If the **Contractor** feels temporary relocation is necessary they must notify the **Department** of their concerns prior to construction and extra time may be required.

The Contractor shall not excavate around any pole, street light or guy anchor to a depth that compromises the stability of the pole.

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

In all cases, the utilities shall be notified, by the Contractor, well in advance (three weeks) before work in any area is to commence.

Any times and dates mentioned or days required are estimates only and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against the Department if they are exceeded.

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

The Contractor shall plan and schedule his work in such a manner that the utilities that are located on this project will not be harmed, damaged or impacted in anyway. The Contractor shall make contact with the Utility directly when utility work is needed. The Contractor and Utility will coordinate their work plans in an effort not to interfere with each other's progress or the completion of the project.

AERIAL

There are no Utility conflicts anticipated within the scope of work planned for these projects. Should any conflict arise it is the Contractors responsibility to contact the utility as soon as possible. The Contractor is urged to visit the site, prior to bid, and review the above ground wires especially where trucks will be exiting onto Commercial Street. Contractor should use caution when working around these lines with over height equipment and no power shutdown is planned for construction.

SUBSURFACE

There are many underground utilities and drainage pipes that run throughout the project. These consist of power, water, sewer, communication cables and storm drains. The Contractor shall, through the digsafes process and utility contacts provided within, determine where these utilities currently exist prior to excavation.

RAILROAD

The **Pan Am Railroad** currently operates the rail line from Cassidy Point to the current NGL load out facility. The contractor shall be aware that the project site, known as Yard 8, will be used for railroad activities throughout the duration of the project. Work will need to be coordinated and planned as follows to maintain the existing railroad operation.

Pan Am Railways Yard 8 and various connecting tracks in the Project Area are presently operated for freight service on a daily basis. Freight service to NGL Supply and IMT Port Authority is normally operated **nightly**, 7 days per week. The Contractor shall pay special attention to the PRTS document especially in the area of insurance that will be required when working around the rail. If the Contractor chooses to work at night (after 6pm) the Contractor, will be responsible for and bear the cost of, the railroad flagging cost listed in the attached PRTS document.

At the start of each work day and prior to Contractor forces occupying the right-of-way, the Contractor superintendent will contact the NGL facilities Manager and IMT Port Authority to discuss proposed Contractor operations and anticipated train activity. The Contractor must install a derail device (approved by Pan Am) to the rail at an agreed upon location near the Cassidy Point road crossing. This device will serve as railroad protection during daytime construction and must be removed to accommodate nighttime deliveries. At no time shall any existing rail be disturbed so they cannot be used safely in the evenings.

At the end of each work day, the MaineDOT Resident shall inspect the work area to determine if the project area is safe for the passage of trains and derailer has been removed. The Contractor shall be required to keep sufficient personnel, materials and equipment at the site to correct any situation deemed necessary for safe train passage until the work area conditions are acceptable to Pan Am Railways and the MaineDOT coordinator. If, in the opinion of the Pan Am Railways or MaineDOT, the site is not suitable for train operations due to conditions caused by the Contractor, the Contractor shall correct the conditions as directed at no additional cost to MaineDOT or Pan Am Railways or, if corrective action is taken by Pan Am Railways or MaineDOT, such cost shall also be reimbursed by the Contractor

The Contractor will be required to continuously maintain the operation of all through right-of-way systems. These include, but are not limited to; grade crossing warning systems, grade crossings, utility crossings and drainage systems.

It will be very important that the Contractor work and make contact directly for scheduling of their work. The contact for the **Pan Am Railroad** is **Luke McCaul** at (978) 663-1255. The contact for **NGL** is **Kevin Fitzgerald** at 252-3970. The contact for the **Port Authority** is **Michael Carter** at 200-2430

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.

SAFE PRACTICES AROUND UTILITY FACILITIES

The Contractor shall be responsible for complying with M.R.S.A. Title 35-A, Chapter 7-A Sections 751 -761 Overhead High-Voltage Line Safety Act. Prior to commencing any work that may come within ten (10) feet of any distribution electrical line or twenty (20) feet of transmission; the Contractor shall notify the aerial utilities as per section 757 of the above act.

DIG SAFE

The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavation work and shall notify utilities of proposed excavation in accordance with M.R.S.A. Title 23 §3360-A, Maine “Dig Safe” System. The contractor is also reminded that all utilities on the project may not be members of Dig Safe.

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.

The Contractor shall communicate with all utilities directly using the contact information provided below. Utility Coordinator will be available if communication problems occur.

Utility Contacts	Coordinator	Phone
Central Maine Power Company	Gary Hawkes	828-2832
Central Maine Power-Transmission	Arthur Brown	626-9562
Fairpoint	Marty Pease	797-1911
Time Warner Cable	Don Johnson	253-2291
Portland Water District	Christian Rodriquez	774-5961
Portland Sewer District	John Emerson	874-8468
Oxford Networks	Scott Crocket	333-3471
Pan Am Railways	Luke McCaul	(978) 663-1255
Unitil	Joe Renda	541-2568
City of Portland-Traffic	Kevin Thomas	756-8291
Casco Bay Bridge	Vincent Miniutti	592-2846
NGL	Kevin Fitzgerald	252-3970
City of Portland-Drainage	David Margolis-Pineo	874-8850
Port Authority	Michael Carter	200-2430

Town: **Portland IMT**
Project/PIN: **22809.31**
3/9/16

**SPECIAL PROVISION
PROTECTION OF RAILROAD TRAFFIC AND STRUCTURES**

1. GENERAL REQUIREMENTS

Part of the work required by the Contract will be performed within a railroad right of way and/or adjacent to the tracks, telephone, telegraph, signal and electric supply lines of a railroad or railroads. The Contractor agrees to perform all such work in compliance with all of the terms of this Special Provision and all safety rules, regulations, or standards applicable to the Railroad. The Contractor shall be fully responsible for all damages arising from his failure to comply with the requirements of this Special Provision. The Contractor shall be deemed to have included all costs in the unit prices of the Schedule of Prices and the Proposal.

2. AMOUNT OF RAILROAD WORK

The estimated amount of work to be done within 50 feet of the track of the Pan Am Railways is 1% of the contract.

3. NUMBER OF TRAINS AND TRAIN SPEED

The Contractor is notified that a maximum speed of 10 mph will be considered as prevailing for the operation of trains of the Railroad at this project and that the approximate number of trains per day at this project is 6.

4. PRIORITY OF RAILROAD OPERATIONS

The train movements of the Railroad, and its lessees, and licensees shall have absolute priority over the performance of the Construction Project within the railroad right of way. The Contractor hereby agrees that the hours and times of work within the Railroad right of way must be coordinated through the Railroad and that such hours and times are subject to change without prior notice to the Contractor, unless other prior arrangements have been made through the Railroad.

5. AUTHORITY OF RAILROAD TO STOP WORK

If the Contractor fails to comply with the safety terms of this Special Provision, or if the Chief Engineer of the Railroad determines that the Contractor is using unsafe practices that threaten the safety of rail traffic, rail workers, or the general public, the Railroad shall have the right to immediately order the Contractor to cease work and vacate the Railroad's property. The Railroad agrees to confirm any cessation of work in writing by delivering to the Department's Construction Manager a completed Stop Work Order form attached as Exhibit A within 24 hours of giving any such order.

Town: **Portland IMT**
Project/PIN: **22809.31**
3/9/16

6. ENTRY UPON RAILROAD PROPERTY

The Railroad hereby agrees to permit the Contractor, together with their subcontractors, suppliers, consultants and engineers (the “Contractor”), to enter upon the Railroad property for the purpose of performing the Construction Project, PROVIDED THAT the Contractor complies with all of the terms of this Special Provision and all safety requirements and directions of the Chief Engineer of the Railroad, or his authorized representative (the “Railroad’s Chief Engineer”).

7. NOTICE REQUIRED BEFORE ENTRY

The Contractor shall give written notice to the Railroad's Chief Engineer at least 7 calendar day(s) in advance of the time it proposes to do work within the limits of the Railroad right-of-way or perform operations that may create a Hazard as specified by this Special Provision. The Contractor shall give such notice regardless of whether the work may also be within the limits of a public highway.

8. HAZARDS

The Contractor shall assess to its own satisfaction hazards which may be caused by its operations. At a minimum, the Contractor agrees that the following shall constitute Hazards.

An operating track shall be considered fouled and subject to hazard when any object is brought nearer than 15 feet to the gauge line of the near rail of the track.

A signal line or communication line shall be considered fouled and subject to hazard when any object is brought nearer than 4 feet to any wire or cable.

An electric supply line shall be considered fouled and subject to hazard when any object is brought nearer than 10 feet to any wire of the line.

Cranes, trucks, power shovels or any other equipment shall be considered as fouling and subjecting to hazard a track, signal line, communication or electric supply line when working in such position that failure of equipment, with or without load, could foul the track, signal line, communication or electric supply line.

Railroad operation will be considered subject to hazard when explosives are used in the vicinity of railroad premises, or during the driving or pulling of sheeting for any footing adjacent to a track, or when erecting structural steel adjacent to a track, or when performing work under, across or adjacent to a track, or when operations involve, swinging booms or chutes that could in any way come nearer than 15 feet to the gauge line of the near rail of the track, or when erection or removal of staging, false work or forms fouls a track or wire line.

Town: **Portland IMT**
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None of the operations specified as a Hazard above shall be carried on during the approach or passing of a train or without permission from the Railroad's Chief Engineer and the presence of a railroad inspector/flagman, unless other prior arrangements have been made through the Railroad.

9. MINIMUM CLEARANCES

During the construction of staging, false work or forms, the Contractor shall at all times maintain a minimum vertical clearance of **22.5** feet above the top of high rail and a minimum side clearance of **10** feet from the gauge line of the near rail where track is tangent. Additional side clearance must be maintained where track is on a curve.

10. WORK PLAN SUBMITTAL AND APPROVAL

The Contractor shall submit in writing to the Railroad's Chief Engineer or duly authorized representative, and the Department's Railroad Property Manager or his appointed representative, at least **30** calendar day(s) in advance of the start of the project, an outline of his plan for work within the Railroad right of way including contemplated method(s) of construction. This plan must meet with the approval of the Railroad's Chief Engineer and the Department's Railroad Property Manager in every respect. If the Contractor contemplates the use of "on the track equipment", it should so state and obtain from the Railroad the conditions pertaining to such operations. All Railroad costs included in this operation will be borne by the Contractor. In a like manner, any of the Contractor's equipment or material on cars for this project shall be handled in conformance with existing traffic rules with all costs borne by the Contractor.

Prior to submitting his Proposal, the Contractor shall have ascertained from the Railroad and from the Department's Railroad Property Manager or his appointed representative, all information relating to its requirements and regulations and all costs in connection with compliance thereto.

11. EXCAVATIONS

Before excavation for footings adjacent to tracks and/or within the Railroad's right-of-way may commence, whether or not also within the limits of a public highway, plans and calculations for such excavations, prepared by a Professional Engineer authorized to practice in Maine, shall be submitted to the Railroad's Chief Engineer for review and approval. Unless other prior arrangements have been made, the Railroad's Chief Engineer shall have **2** week(s) to perform such review and approval and issue a written permission to proceed with the excavation. No excavation shall proceed without such permission.

Town: **Portland IMT**
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3/9/16

At a minimum, excavations must utilize proper bracing, shoring, sheeting or other support as determined by the Railroad's Chief Engineer, to support the tracks with railroad traffic. Open excavation shall be suitably planked over when construction operations are not in progress. No excavation work shall be performed by the Contractor within the limits of the Railroad right of way, whether or not also within the limits of a public highway, until the Contractor has ascertained from the Chief Engineer of the Railroad the location of any wires, conduits, pipes, cables or other railroad facilities below the surface of the ground. Damage to any such facilities caused by the failure of the Contractor to ascertain the location of such facilities or by failure to use due care to avoid injury to such facilities shall be at the expense of the Contractor.

12. EQUIPMENT

Equipment of the Contractor shall be in such condition so as to prevent failure that would cause delay in the operation of trains or damage to railroad facilities. Equipment shall not be placed or put in operation adjacent to a track without first obtaining permission of the Railroad. The Railroad agrees that such permission shall not be unreasonably withheld.

13. RAILROAD SERVICES - GENERALLY

When work is to be performed within the Railroad's right-of-way, the Railroad shall provide the services, equipment and materials provided in this Special Provision including, but not limited to, engineering, flagging, inspection, signal protection and/or relocation, and restoration or replacement of the Railroad's track structure of ballast. Further, if the Railroad's Chief Engineer determines that the Contractor's operations do not comply with all of the safety requirements of this Special Provision and all safety requirements and directions of said Chief Engineer, the Railroad will employ the necessary qualified employees to protect its trains and other facilities. The Contractor shall pay to the Railroad the cost for performing all Railroad Services unless said costs are to be paid by the Department as specified in this Special Provision.

14. INSPECTION / FLAGGING

The Railroad shall furnish and assign all inspectors / flaggers for general inspection purposes of general protection of railroad property and operations during construction as the Railroad's Chief Engineer determines are necessary to preserve safety.

(a) Responsibility for Cost. The Department will bear the cost of flagging or inspection (including travel time) or any combination thereof up to 0 man days of said flagging or inspection. If, in the opinion of the Railroad's Chief Engineer, further services of a flagger or inspector will be required due to the operations of the Contractor, the services will be furnished and the cost thereof (salary, expenses, insurance, taxes and vacation allowance, etc.) shall be paid to the Railroad by the Department, and will be recovered by the Department from the Contractor.

Town: **Portland IMT**
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3/9/16

(b) Terms. The minimum hours per day for the Railroad employees engaged in inspection flagging services shall be eight (8) hours. Time at rates for straight time, overtime or for deadheading starts in accordance with established practices in effect in the territory in which the project is located. Information as to these practices should be obtained from the Railroad's Chief Engineer.

The Contractor shall notify the Railroad's Chief Engineer and the Chief Engineer of the Department in writing 7 calendar day(s) before beginning, resuming or suspending work within 25 feet of the track, so that an inspector may be provided or removed in accordance with the requirements of this Special Provision. An inspector may be removed upon 3 calendar day(s) notice. Failure to give notice of intent to suspend work shall be cause of charge to the Contractor the cost of inspection during the period when work is suspended.

(c) Estimated Cost. The following is an estimate of the cost per day of inspection/flagging necessary for this project. The rates shown include all overhead charges, travel time, deadheading and personal expenses.

Date of estimate 2/11/2016 .

Estimated daily rate for eight (8) consecutive hours Monday-Friday (straight time): \$341.00

Estimated daily rate for eight (8) consecutive hours Saturday, Sunday, Holiday (overtime):
\$512.00

Estimated rate for hours worked in excess of eight (8) hours in any one day: \$64.00/Hour

Rates charged will be those in effect at the time of the performing the inspection/ flagging which may be different than the rates used at the date of the Estimate. The Railroad agrees to notify the Department if rates used to calculate the above estimates change before the date of bids are received for this Contract.

(d) Definitions.

Man day (M.D.) - eight (8) consecutive hours or any portion thereof.

Overtime - Each additional hour or fraction thereof consecutive to and beyond the standard man day will count as 3/16 of a man day.

Standard Man day - Eight (8) consecutive hour, Monday - Friday between the hours of 7:00 a.m. to 3:30 p.m. unless otherwise noted and agreed to by all parties.

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Travel Time - Time required by flagger and/or inspector to commute between his or her point of headquarters to the project site. This time shall not be charged used in determining available man days.

15. OTHER CONTRACTOR RESPONSIBILITIES

The restoring and resurfacing of tracks, if disturbed due to Contractor's operations, shall be at the expense of the Contractor.

Any other changes made or services furnished by the Railroad as a result of the Contractor will be at the Contractor's expense.

16. EXTRA-CONTRACT SERVICES

Temporary and permanent changes of tracks and telephone, signal and electric supply lines made necessary by or to clear the permanent work of the Contractor as shown on the construction plans and included in the Railroad force account as collectable from the State will be made or caused to be made by the Railroad without expense to the Contractor.

17. INDEMNIFICATION

Where work is being performed over, under, across or adjacent to Railroad premises, the Contractor shall defend, indemnify and save harmless the Railroad and the Maine Department of Transportation from and against any and all loss, cost, damage, claims, suits, demands, or liability for damages for personal injury including death and for damage to property, which may arise from or out of the operations conducted under his contract, occurring by reason of any act or omission of the Contractor, his agents, servants or employees, or by reason of any act or omission of any subcontractor, his agents, servants or employees.

18. INSURANCE

In addition to any other forms of insurance or bonds required under the terms of the Contract, the Contractor will be required to procure and maintain, at its sole cost and expense, the following insurance coverages naming the Railroad as an insured.

(a) Railroad Protective Liability Insurance with limits not less than **\$2M** per single occurrence and **\$6M** per aggregate total occurrences.

(b) Comprehensive General Liability Insurance protecting against liability from bodily injury or property damage arising out of the Construction Project with limits of not less than **\$2M** per single occurrence and **\$6M** per aggregate total occurrences.

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(c) Workers Compensation and Occupational Disease Insurance, as required by law.

(d) Automobile Liability Insurance covering all motor vehicles used about or in connection with the Construction Project.

If any part of the work is sublet, these insurance coverages shall be provided by or on behalf of the subcontractors to cover their operations

Each policy shall carry an endorsement covering the “save harmless” clause in favor of the Railroad and the Maine Department of Transportation, as set forth in the paragraph, “Responsibility for Damage Claims”.

If blasting is to be done in the vicinity of the Railroad, the insurance policies shall include such coverage.

The policies shall be in force before any work is done on the project and shall remain in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the State and the Railroad.

Before any work is done on the project, the Department of Transportation and the Railroad's Chief Engineer shall be furnished certificates of each policy. Further, the original policy of the Comprehensive General Liability Insurance and the Railroad Protective Liability Insurance shall be furnished to the Railroad's Chief Engineer and a duplicate shall be furnished to the Department of Transportation.

The policy or policies of the Railroad’s protective public liability and property damage liability shall be written by a Company authorized to do business in the State of Maine, and shall be signed by the President and Secretary of the Insurance Company and shall be countersigned by an authorized representative of the Company.

19. ROADWAY WORKER SAFETY REGULATION

Notice to all Contractors/Subcontractors and individuals must be aware of the Federal Roadway Worker Safety Regulation, CFR 49, Part 214(c). They may be required to comply with this regulation. Any requirements for them to comply will be discussed at the pre-construction utility meeting.

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EXHIBIT A
 ORIGINAL TO CONTRACTOR
MDOT/RAILROAD STOP WORK ORDER

Section A - Contractor	Town
	DOT Railroad Project #
Railroad Name	Location
	Notice #
DESCRIPTION OF SAFETY HAZARD/REASON FOR ORDER	
Standard Violated	RAC (Risk Assessment Code)
	N/R
Railroad Official (Flagger/Inspector) Name	Date
Signature	
SECTION B - ACTION TAKEN:	

cc: MDOT - R.E. or Inspector
 MDOT - Utility Section
 MDOT - Construction Division
 Railroad - Chief Engineer

1. Risk Assessment. Each identified/validated hazard shall be assigned a Risk Assessment Code (RAC) by the Safety Office. The RAC represents the degree of risk associated with the deficiency and combines the elements of hazard severity and mishap probability. The RAC is derived as follows:

a. Hazard Severity. The hazard severity is an assessment of the worst potential consequence: Defined by degree of injury, occupational illness, or property damage, which is likely to occur as a result of a deficiency. Hazard severity categories shall be assigned by roman numeral according to the following criteria.

- (1) Category I - Catastrophic: The hazard may cause death or loss of a facility.
- (2) Category II - Critical: May cause severe injury, severe occupational illness, or major property damage.
- (3) Category III - Marginal: May cause minor injury, minor occupational illness, or minor property damage.
- (4) Category IV - Negligible: Probably would not affect personnel safety or health, but is nevertheless in violation of a NAVOSH standard.

b. Mishap Probability. The mishap probability is the probability that a hazard will result in a mishap, based on an assessment of such factors as location, exposure in terms of cycles or hours of operation, and affected population. Mishap probability shall be assigned an Arabic letter according to the following criteria:

- (1) Sub-category A - Likely to occur immediately or within a short period of time.
- (2) Sub-category B - Probably will occur in time.
- (3) Sub-category C - May occur in time.
- (4) Sub-category D - Unlikely to occur.

c. Risk Assessment Code. The RAC is an expression of risk which combines the elements of hazard severity and mishap probability. Using the matrix shown below, the RAC is expressed as a single Arabic number that can be used to help determine hazard abatement priorities.

	Mishap Probability				RAC	
		A	B	C	D	
Hazard Severity	I	1	1	2	3	1 - Critical
	II	1	2	3	4	2 - Serious
	III	2	3	4	5	3 - Moderate
	IV	3	4	5	5	4 - Minor
						5 - Negligible

**SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Contractor Access to Restricted Areas)**

Standard Specification 105.5.1 is amended by the addition of the following:

The Contractor is advised that access to mounds for removal shall be via

- **Cassidy Point Road along and within the State of Maine RW corridor and adjacent to the Pan Am rail corridor.**
- **The facility entrance at the Beach Street intersection.**
- **A stabilized construction entrance shall be constructed at the Cassidy Point Road access location. The stabilized construction entrance shall be constructed in accordance with Standard Detail 802(17) Stabilized Construction Entrance. Reference Location Map 1 and Location Map 2 for location details.**

All property is subject to port operations and the Contractor shall schedule his work accordingly.

Pan Am operates an active rail line throughout the IMT facility. The Contractor shall schedule his work accordingly.

**SPECIAL PROVISION
SECTION 107
TIME**

107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

Work shall commence on or before April 20, 2016.

The contract completion date is May 20, 2016.

107.3.2 Night Work

This Subsection is amended by the addition of the following:

The Contractor shall be aware of the close proximity of the local residences. The Contractor shall conduct operations so as not to generate loud noises greater than 80 dB within 500 ft of any building used for residential purposes between the hours of 10:00pm and 7:00am unless otherwise approved. Local requirements concerning noise may impose additional restrictions and must be complied with by the Contractor. See Section 17 - 18 of the City of Portland Ordinance.

**SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(SOIL MANAGEMENT)**

General. The work under this specification shall be performed in conformance with all the procedures and requirements described herein for the following activities: contaminated soil handling, transportation and disposal/treatment and, contaminated water handling, storage, treatment and disposal. This specification also addresses contaminated soil location, identification, and classification. The intent of this specification is to ensure that any contaminated soil and/or water encountered during construction will be managed in a manner that protects worker health and safety, public welfare and the environment.

Environmental Site Conditions. The Maine Department of Transportation has conducted an environmental assessment related to the planned work at the International Marine Terminal expansion project. The environmental assessment for the project area was completed to obtain a general understanding of the environmental conditions along the project corridor. The assessment included a review of relevant Maine Department of Environmental Protection's (MDEP's) and Environmental Protection Agency's (EPA's) databases and field reconnaissance of the project area. During this work it was noted that the southwestern and western portions of the project area (former Unutil site) have a variety of subsurface environmental concerns. These concerns are associated with the historical operation of a coal degasification facility; contaminants consist primarily of oil-like-materials (OLM) and other coal-gasification-related-materials (CGRM). Existing data also indicate that shallow soils in the remaining area of the project have been affected by heavy metals and polycyclic aromatic hydrocarbons (PAHs). It appears that these soils have been influenced by historical railroad operations. The results of the environmental assessment are available for review from MaineDOT's Office of Safety and Compliance in Augusta (207-624-3004).

Identified Area of Contamination. MaineDOT's environmental assessment identified the project area as having shallow and deep soil contamination. Analytical laboratory results of samples taken from the borings associated with previous work by others on the project site indicate varying levels of OLM, CGRM, PAHs and metals are present in soils. These concentrations define the soils as potential special waste per State remedial guidelines.

Identifying and Screening Contaminated Soil and Groundwater. Excavated soils will be considered contaminated and will need to be taken to a regulatory approved facility for proper management.

Handling and Disposition of Soil Materials. In general, soils excavated during construction shall be handled as follows:

- Soils shall not be excavated without prior approval by the Resident.
- The Contractor shall arrange and undertake transport and disposal/treatment of all impacted soil at a landfill or treatment facility licensed to accept contaminated soil. The Contractor is responsible for all additional testing required by the receiving facility. If the Contractor proposes other disposal or treatment options, the Contractor is solely responsible for obtaining the associated permits and approvals from all relevant Municipal, State, and Federal agencies at no additional cost to the State.

Work and the management of soils on the site must be conducted in accordance with MDEP's No Action Assurance letter associated with the approved Voluntary Response Action Program (VRAP) remediation plan for the property. A copy of the Final Soil Management Plan for this property is attached.

The Resident is responsible for signing any manifests or bills of lading required to transport and disposal of the impacted soil. The Resident will send all manifests and bills of lading to MaineDOT, Office of Safety and Compliance, Station 16, Augusta, Maine 04333.

Health and Safety/Right-to-Know. Contractors and subcontractors are required to notify their workers of the history of the site and contamination that may be present and to be alert for evidence of contaminated soil and groundwater. The Contractor shall notify the Resident at least three business days prior to commencing any excavation.

The Contractor shall prepare a site specific Health and Safety Plan (HASP) for its workers and subcontractors who may work in the contaminated areas of the site. A Qualified Health and Safety Professional shall complete the HASP. The Qualified Health and Safety Professional will be an expert in field implementation of the following federal regulations:

29 CFR 1910.120 or 29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1910.134	Respiratory Protection

29 CFR 1926.650	Subpart D - Excavations
29 CFR 1926.651	General Requirements
29 CFR 1926.652	Requirements for Protective Systems

MaineDOT is voluntarily ameliorating the soil contamination associated with this initiative. Given that this is a voluntary clean up effort approved by a regulatory agency, the OSHA requirements as defined in 29 CFR 1910.120 apply. These requirements mandate that workers and any subcontractors working in the contaminated area shall comply with all OSHA regulations for Hazardous Waste Operations and Emergency Response including a 40 hour initial hazardous waste operations certification [OSHA 1910.120(e)], annual 8 hour refresher course within the last 12 months and medical surveillance [OSHA 1910.120(f)] within the last 12 months.

The contractor shall designate a person to provide direct on-site supervision of the work in the contaminated areas. This person shall have the training under OSHA 1910.120 (e) as above and in addition be qualified as a construction Competent Person. It is the responsibility of the competent person to make those inspections necessary to identify situations that could result in hazardous conditions (e.g., possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions), and then to insure that corrective measures are taken.

Submittals. The Contractor shall submit a site specific Health and Safety Plan (HASP) to the Resident at least two weeks in advance of any excavation work on the project. The Contractor shall not proceed with work until MaineDOT has reviewed the plan and notified the Contractor that it is acceptable.

Health and Safety Monitoring. Within the contaminated area of the project, the Contractor's designated on-site person shall monitor the work zone for those constituents specified in the Contractor's HASP. The Contractor shall provide all required health and safety monitoring equipment.

Dewatering. Groundwater may be encountered and its removal necessary to complete the work. It will be treated as "contaminated" water. The Contractor shall inform the Resident before any dewatering commences. The "contaminated" water shall be pumped into a temporary holding tank(s). The Contractor will be responsible for the procurement of any holding tank(s). Any testing, treatment and/or disposal of the stored, contaminated water shall be undertaken by the Contractor in accordance with applicable Federal, State and local regulatory requirements.

On-Site Water Storage Tanks - Materials. If dewatering within the identified contaminated area becomes necessary the holding tanks used for temporary storage of contaminated water pumped from excavations shall be contamination free and have a minimum capacity of 2,000 gallons.

Dust Control. The Contractor shall employ dust control measures to minimize the creation of airborne dust during the construction process in the contaminated area. As a minimum, standard dust control techniques shall be employed where heavy equipment and the public will be traveling. These may include techniques such as watering-down the site or spreading hygroscopic salts.

Unanticipated Contamination. If the Contractor encounters previously undiscovered contamination or potentially hazardous conditions related to contamination, the Contractor shall immediately suspend work and secure the area. The Contractor will then notify the Resident immediately. These potentially hazardous conditions include, but are not limited to, buried containers, drums, tanks, “oil saturated soils”, strong odors, or the presence of petroleum sufficient to cause a sheen on the groundwater. The area of potential hazard shall be secured to minimize health risks to workers and the public and to prevent a release of contaminants into the environment. The source of any suspected contamination shall be evaluated by the Resident (or MaineDOT’s Office of Safety and Compliance representative). As appropriate, the Resident will notify the MDEP’s Response Services Unit in Portland and MaineDOT’s Office of Safety and Compliance. The Portland Fire Department must also be notified prior to removal of buried storage tanks and associated piping. The Contractor will evaluate the impact of the hazard on construction, amend the HASP if necessary, and with the Resident’s approval, recommence work in accordance with the procedures of this Special Provision.

Method of Measurement. There will be no measurement for identification and environmental screening of contaminated soil material as all soil is considered contaminated.

Measurement for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by lump sum.

Measurement for the transportation and off-site treatment or disposal of impacted soil will be by the ton of Special Excavation.

There will be no measurement for additional laboratory testing of contaminated soil that is required by the landfill or treatment facility. Testing is incidental to the disposal of Special Excavation.

Measurement for the following items shall be according to Subsection 109:04 (“Change Order”/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated groundwater.

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Basis of Payment. There will be no payment for the identification and environmental screening of contaminated soil material as all soil is considered contaminated.

Payment for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by the lump sum

Payment for transportation and offsite disposal or treatment of impacted soils at a regulatory approved facility shall be by the ton of Special Excavation.

Payment for the following items shall be according to Subsection 109:04 (“Change Order”/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated groundwater.

Pay Item		Pay Unit
203.2312	Health and Safety Plan (HASP)	L.S.
203.2333	Transport and Disposal/Treatment of Special Excavation	Ton

SOIL MANAGEMENT PLAN
International Marine Terminal Site
West Commercial Street
Portland, Maine

Prepared for:
MaineDOT
Augusta, Maine

Amended by:
Haley & Aldrich, Inc.
Portland, Maine

Revision	Date	Description
0	Mar 2015	MaineDOT Ownership – Initial Issue

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List of Acronyms and Abbreviations

AMEC	AMEC Environment & Infrastructure, Inc.
CGRM	coal gasification-related material
HAZWOPER	Hazardous Waste Operations and Emergency Response Standard
IMT	International Marine Terminal
MaineDOT	Maine Department of Transportation
MEDEP	Maine Department of Environmental Protection
MGP	manufactured gas plant
NAPL	Non-Aqueous Phase Liquid
NGL	NGL Energy Partners LP
NU	Northern Utilities, Inc. d/b/a Unitil
O&M	Operations and Maintenance
OSHA	U.S. Occupational Safety & Health Administration
Property	Former Unitil and Pan Am parcels – West Commercial Street
RAG	Remedial Action Guidelines
SMP	Soil Management Plan
SSHSP	Site Specific Health and Safety Plan
SVOC	semi-volatile organic compounds
VRAP	Voluntary Response Action Program
ESA	Environmental Site Assessment

1. Introduction

The Maine Department of Transportation (MaineDOT) is currently expanding the existing International Marine Terminal (IMT) along the Fore River in Portland, Maine (see Figure 1, Project Locus). The proposed expansion plans consisted of the acquisition of properties located to the west of the existing IMT facility that included parcels formerly operated by Northern Utilities, Inc., d/b/a Unitil (Unitil) and properties formerly owned by New Yard, LLC and Pan Am Railroad. The acquired Unitil parcel was historically occupied and utilized by the Portland Gas Works operations that resulted in several environmental conditions and concerns that were effectively addressed through Unitil's participation in MEDEP's Voluntary Response Action Program (VRAP). The remedial approach implemented at the Unitil property was outlined in a MEDEP issued VRAP No Action Assurance letter dated 1 June 2012 and incorporated into the amended Soil Management Plan (SMP).

The recently acquired property from New Yard is located immediately west of the IMT facility and bisects the former Unitil parcel; the former Pan-Am parcel is located to the west of the new boat yard facility being constructed along the Fore River adjacent to the western portion of the former Unitil property. Previously completed investigations on the former New Yard and Pan Am parcels did not identify significant environmental issues related to the former manufactured gas plant (MGP) operations. However, completed analytical soil testing collected from near surface samples identified soil impacts from historical railroad operations resulting in slightly elevated levels of semi-volatile organic compounds (PAHs) and select metals; similar to the detected soil impacts addressed by the Unitil VRAP. Due to the similarly encountered environmental conditions and to ensure consistency, MaineDOT requested MEDEP approval to utilize the remedial actions presented in the 1 June 2012 No Action Assurance letter for construction activities associated with the former New Yard and Pan Am property. In a letter dated 19 September 2014, MEDEP granted approval that the proposed remedial actions previously outlined for the Unitil property in the 1 June 2012 VRAP No Action Assurance letter is appropriate for similar conditions encountered on the acquired Pan Am parcels.

This Soil Management Plan (SMP) was prepared by Haley & Aldrich for MaineDOT to recognize the change in the property owner and incorporate the former New Yard and Pan Am properties as part of the Site. To ensure consistency, MaineDOT used information contained in the SMP originally developed by Unitil for this plan. As previously indicated, this SMP is intended for construction and maintenance activities associated with excavations on all the parcels associated with the IMT Expansion project.

1.1 SITE DESCRIPTION AND BACKGROUND

The IMT property expansion/acquisition consists of approximately 17.9 acres that includes two separate parcels acquired from Unitil located in the eastern area of the site property and two parcels acquired from Pan Am (see Figure 2). The two former Unitil properties, separated by former Pan Am property, consist of a northern triangular-shaped parcel (Inland Parcel) that includes the existing propane storage/distribution facility and a southern irregular shaped parcel along the Fore River (Shoreline Parcel). The northern parcel acquired from Unitil currently includes the propane storage/distribution facility occupying the western portion of this parcel.

The acquired eastern Pan Am property extends from the Casco Bay Bridge with two finger-like extensions to the west; the southern extension includes the property between the two Unitil parcels; and the northern finger extending from the northern boundary of the Inland Unitil parcel to West Commercial Street continuing in a westerly direction to the northwest corner of the New Yard, LLC property (see Figure 2). The acquired western Pan Am parcel is approximately 50 to 100 ft in width extending from the intersection of Cassidy Point Drive and West Commercial Street to the west, traversing in an easterly direction parallel to West Commercial Street extending to the western boundary of the New Yard LLC property and the above-mentioned Pan Am parcel (see Figure 2).

1.1.1 Former Unitil Parcels

This portion of the site property consists of two parcels of land, formerly identified as being located at 40 West Commercial Street in Portland, Maine. These include the Inland and Shoreline parcels and are the location of a former manufactured gas plant operated by Portland Gas Works, which began operations in the mid-Nineteenth Century. In the mid-1960's, soon after the formation of Northern Utilities (NU), natural gas was introduced to the area and the plant ceased operation. The facility was subsequently decommissioned and demolished.

A portion of this property is currently occupied by an active propane storage facility and a regulator station housed in one of two remaining MGP buildings within the Inland parcel. Access to the parcel is controlled by a series of perimeter fences.

NU applied for, and in early 1999, was granted entry to the Voluntary Remedial Action Program (VRAP) for the former Portland Gas Works site. This program allows the owner to voluntarily investigate and correct environmental conditions at a site in cooperation with Maine Department of Environmental Protection (MEDEP). NU completed a Phase I Site Investigation of environmental conditions at the Property in 1999. NU met with MEDEP in September 1999 and reported the results of the Phase I Site Investigation indicated the presence of gas-manufacturing by-products. It was agreed that further site characterization was warranted. At that time, NU recommended, and MEDEP concurred, that the site be fenced to prevent further trespassing. In 2000, NU obtained permission from Guilford Transportation (Pan Am) to erect a security fence around the Property and to conduct a supplemental investigation on the abutter's property to determine whether coal gas residues may have migrated onto its parcel.

The fieldwork for NU's Phase II Site Investigation was completed in 2002 and a report was submitted to MEDEP in November 2002. MEDEP reviewed the report and some limited supplemental field data collection activities were implemented during 2003 to address MEDEP comments.

Based on the results of investigations conducted at the Property between 1999 and 2003, six primary source areas of coal gasification-related material (CGRM) were identified. These source areas included:

- A gravel mound underlain by CGRM;
- A subsurface Non-Aqueous Phase Liquid (NAPL)/seep area;
- A former tar well/gas holder;

- A former tar processing area;
- Tar scabs along the shoreline of the Fore River; and
- Purifier box waste.

The results of the investigations, characterization, conceptual model, and risk evaluation were summarized in an Investigation Summary Report dated April 2003. The Gravel Mound was addressed in a study dated May 12, 2004 and under went remediation in June 2004. To address the remediation of the other five areas, technologies were identified and remedies were selected based on the findings of a Focused Feasibility Study/Response Action Plan dated July 2004.

Remediation activities were executed on four of the source areas during the winter of 2006/2007. These activities included:

- Containment and minimization of NAPL migration from the upgradient source area to the seep area and groundwater by installing a NAPL collection and storage system;
- Removal of 400 tons of liquid tar from the tar well and subsequent backfill and stabilization of the well;
- Removal of shoreline tar scabs and debris and installation of a rip-rap revetment on the shoreline;
- Removal of the gravel mound; and
- Removal of approximately 5,700 tons of tar impacted soil and debris in the tar processing area.

Property ownership changed in December 2008 when Unitil acquired Northern Utilities, Inc. from NiSource – the then parent company of NU - in a common stock sale.

Further remediation of the seep area and the purifier box waste area were to be addressed in future remedial actions under the VRAP program. These were subsequently noted in the current No Action Assurance letter issued by the MEDEP in May 2012.

Additional investigations related to contamination in the former gravel mound, purifier box waste area, the inland parcel tar scab area, and shoreline parcel seep area were conducted in 2012. The information from these investigations was used to:

- Confirm that the gravel mound contaminated soil had been removed and have a certificate of completion issued for that portion of the former inland parcel,
- Develop remedial design plans for the excavation and removal of the former purifier box waste area the construction for which was completed in January 2014, and

- Develop remedial designs plans for the shoreline seep area, the construction for which will be completed in Fall of 2015.

1.1.2 Former Pan Am Railroad Properties

The western portion of the existing site property that was previously owned and operated by Pan Am consisted of undeveloped overgrown areas that included a primary rail line, a parallel rail line spur and an existing gravel roadway that was also likely a former rail line. The primary rail line was most recently used to service the adjacent Northern Utilities/Unitil propane/natural gas facility located to the east.

As part of the redevelopment of this area, Haley & Aldrich completed a Phase I and II Environmental Site Assessment (ESA) of a portion of the Pan Am property for MaineDOT in 2013. The portion of the Pan Am property entailing the ESA included the entire western parcel extending from West Commercial Street to the Fore River, to the north and south, respectively; to the intersection of West Commercial Street and Cassidy Point to the west; and to the southern boundary of the New Yard and eastern Pan Am parcel boundaries. The results of the ESA are included in a report to MaineDOT dated 13 December 2013.

Historically, the site property was developed for railroad related purposes in the 1850s. This railroad property is currently referred to as a portion of the Yard 8 Property formerly operated by the Portland Terminal Company since the early 1900s. The Portland Terminal Company was a terminal railroad notable for its control of switching activity for the Maine Central Railroad and Boston & Maine railroads for Portland, South Portland and Westbrook. Portland Terminal Company was acquired by Guilford Transportation Industries in 1981 and continued as a subsidiary of Pan Am to the present. Additional details related to historical site and vicinity operations and uses are included in the 13 December 2013 ESA report.

As part of the Phase II ESA, a series of test pit excavations were performed to investigate subsurface conditions beneath this portion of the Pan Am property. The thirty-six completed test pit excavations, designated TP-101 through TP-136, are shown on Figure 3 (2 sheets). The purpose of the test pits was to assess the degree and extent of anticipated fill material and potential environmental impacts associated with past railroad operations and adjoining property uses. In addition, selected soil samples collected from the excavations were submitted for chemical analyses.

Encountered subsurface conditions for each of the test pit excavations are summarized in Table 1. The excavations were completed to depths ranging from approximately 6.5 to 12.0 ft below ground surface (BGS). Encountered soils included two distinct units of fill material, typically overlain by a thin layer of vegetative cover material soils described as follows:

- Rail Yard Fill – Fill material related to former rail yard operations was encountered in almost all of the completed excavations at a uniform depth extending to approximately 2.0 ft BGS. The encountered rail yard fill material consisted primarily of gray to black ash, cinders, clinkers and coal pieces intermixed with a medium to fine SAND with silt and occasional ballast material.

- Tidal Area Fill – Fill material related to the historic filling of the tidal area for the development of the waterfront area adjacent to the Fore River consisted of a mixture of granular soils and marine deposits consisting of fine sands, silt and clay. The granular fill material typically overlain the finer grained marine deposits, likely for additional bearing capacity related to the railroad operations. The thickness of the tidal fill material could not be determined due to the presence of tidally influenced groundwater in the excavations and cave-ins of the excavation sidewalls. It is likely that the placed tidal fill material may have extended to depths greater than the completed test pit excavations and/or was similar material and indistinguishable (>12 ft BGS).

Nine collected soil samples were submitted for chemical analyses. Four of the samples tested were collected within the rail yard fill materials (i.e., from TP-101, TP-107, TP-117 and TP-112), one of the samples was collected near the location of the existing crane structure (from TP-129A), and four samples were collected within the tidal fill materials (from TP-133 through TP-136; adjacent to the New Yard LLC property and not a portion of the Pan Am acquired property). The rail yard fill samples were analyzed for semi-volatile organic compounds (SVOCs), PCBs and RCRA metals. The tidal fill samples were analyzed for VOCs, SVOCs and RCRA metals. The soil testing results are summarized on Table 2, and are compared to MDEP Remedial Action Guidelines (RAGs). The results are summarized as follows:

Rail Yard Fill Samples – PCBs were not detected in any of the samples. Detected metals in each of the samples included arsenic, barium, chromium and lead; mercury was detected in each of the samples with the exception of TP-117. The detected metals concentrations in all of the samples were within the common range typically found in soils. With the exception of arsenic, all detected metals were below MDEP Remedial Action Guidelines (RAGs). The detected arsenic concentrations were within a similar range and likely represent background concentrations. With the exception of the sample from TP-117, several SVOCs (PAHs) were detected in the rail yard fill samples exceeding the Residential, Park User and Commercial Worker RAGs. The detected concentration of benzo(a)pyrene in the sample from TP-101 exceeded the Residential and Park User RAGs. The remaining detected SVOCs in the rail yard fill samples were detected at concentrations below the RAGs.

Crane Structure Sample – No VOCs, SVOCs or PCBs were detected in the sample from TP-129A. Detected metals included arsenic, barium, chromium and lead at concentrations within the typically range of metals, and with the exception of arsenic, below the RAGs. Similar to the rail yard samples, the detected arsenic concentration likely is representative of background arsenic concentrations.

Tidal Fill Samples from the Eastern Portion of the Site – No VOCs were detected in any of the eastern area samples. Detected metals included arsenic, barium, chromium and lead at concentrations within the typically range of metals, and with the exception of arsenic which likely represents background, below the RAGs. No SVOCs were detected in TP-135 or TP-136. In samples TP-133 and TP-134 several SVOCs were detected above the Residential and/or the Park User RAGs. Field observations indicated that detected SVOCs in TP-133 and TP-134 were likely attributed to the migration of upgradient CGRM impacted groundwater.

Soil Management Plan
International Marine Terminal – Portland, Maine
MaineDOT

1.2 POINTS OF CONTACT

For construction related questions associated with the IMT expansion project contact:

MaineDOT Multimodal Program Office
Phone (207) 624-3420

For environmental related concerns call:

MaineDOT Office of Safety and Compliance
Phone (207) 624-3004

Maine Department of Environmental Protection
VRAP Program – Mr. Nick Hodgkins – Project Manager
Phone (207) 287-4854

2. Excavation and Segregation

The primary goal of excavation and segregation activities is to return stockpiled impacted soil back into the excavation, as close as possible to the point of origin. Criteria for soil segregation at the point of excavation are based on depth and visual inspection. Details of the excavation and segregation criteria are described below.

This SMP focuses only on the requirements of handling site soil, and does not address other worker safety requirements. A SSHSP must be prepared and implemented, as needed, to address applicable state and federal regulatory requirements.

Excavations completed on the former Unitol parcels may encounter soil containing tar and/or oily debris, and may include, but is not limited to, the following:

- excavated material containing a greater percentage of tar than soil;
- pooling of oily material within, or draining from, the stockpile; or
- tar or oily material flowing into the excavation from the sidewalls.

If this type of impacted soil is temporarily stockpiled for off-site treatment and disposal at a licensed facility, the soils must be managed in accordance with applicable state and federal regulations. If such conditions are encountered, the appropriate points of contact should be immediately notified (see Section 1.3 above).

Excavations completed on the former Pan Am railway property will encounter rail yard fill material containing ash, cinders, clinkers and coal pieces intermixed with sand, silt and ballast material from the ground surface to approximately 2.0 ft BGS. Rail yard fill material encountered during excavation activities will be segregated and stockpiled for use as backfill material in the completed excavation. Excess rail yard fill material will be stockpiled and covered for potential on-site re-use and/or off-site treatment or disposal at a licensed facility.

At depths below approximately 2.0 ft BGS, tidal area fill consisting of granular native material at thicknesses ranging from approximately 6 to 8 ft is anticipated. Based on previous analytical results, excess tidal area fill can be removed from the site by the contractor for uses approved by the MEDEP. However, if any rail operations related material, (i.e., ash, demolition debris, etc.) is observed the MaineDOT Site Manager will be notified and upon direction this material will be segregated for on-site reuse or sampled for analytical analysis and the disposition will be determined based on the comparison of the results to MEDEP Remedial Action Guidelines.

Although not observed in previously completed subsurface investigations, there is the potential that petroleum impacted conditions may be encountered from former railroad related operations that would

require notification of the appropriate points of contact. In addition, any tar and/or oily material encountered beneath the adjacent former Pan Am property, likely at depths below the water table and downgradient from the former MGP operations shall also require site contact notification.

2.1 EXCAVATION PROTOCOL

If the excavation occurs in an area of pavement or crushed rock, this material is first removed and stockpiled for reuse. Soil removed from the excavation shall be initially-separated based on visual inspection of the soil. Soil removed from the ground surface to a depth where soils are visually impacted with MGP materials shall be placed to one side of the excavation. Rail yard fill material impacted soils excavated from the point of visual staining to the bottom of the excavation shall be placed on the opposite side of the excavation (see Figure 4).

Tidal fill material that visually displays no impacts will be side cast for future reuse or for off-site management.

Site workers shall employ dust control measures, as needed, to minimize the creation of airborne dust during the excavation process.

2.2 SEGREGATION ACTIVITIES

To the extent necessary and possible, excavated material associated with the Project shall be grouped into one of four categories: (1) Visually clean soil material, (2) soil containing ash and clinkers; (3) soil containing visible tar or oily debris; and (4) oversized debris. Each is described in more detail below.

2.2.1 Visually Clean Soil

Soil material designated as clean through observation shall be stockpiled in areas separate for other soil storage locations. This material may be reused at any on-site location or may be taken off-site for reuse as approved by the MEDEP and after appropriate characterization.

2.2.2 Soil Containing Ash and Clinkers

Shallow soils across the project area, including the tidal area fill material, excavated above the water table at the site is expected to be visually clean, or mixed with ash and/or clinkers (rail yard fill). This type of soil may be temporarily stockpiled right next to the excavation. These soils can be returned to any depth in the excavation, but should be reserved for backfilling the upper 24 inches.

2.2.3 Soil Containing Tar, Oil, and/or Wood Chips

Soil containing limited amounts of tar, oily debris, and/or wood chips can be temporarily stockpiled near the excavation, as long as it will be returned to the excavation. To the extent feasible, soil containing limited amounts of tar and/or oily debris should be stockpiled away from the cleaner material described above.

If the excavation ceases because heavy tar and/or oil are found in the soil (free-product and/or saturated soils), stockpiled material should be immediately returned to the excavation. If it is not feasible to return this material to the excavation, the stockpiled material must be secured to the extent feasible (to minimize exposure to this material). The disposition of this encountered material will be determined in consultation with the MEDEP.

2.2.4 Oversized Debris

Oversized debris includes material such as pieces of concrete, refractory, abandoned piping, or lumber, which may be coated with tar or oily debris. If a large amount of oversized debris coated with such material is excavated and cannot be returned to the excavation, the material must be moved to a short-term storage area and secured to the extent feasible (to minimize exposure to this material).

2.3 BACKFILLING

Visually-impacted soil (e.g., tar, oil, wood chips) shall be returned to the deeper portions of the excavation, and lesser impacted material may be reused as backfill at any depth in the excavation. Visually 'clean' soil as described in Section 2.2.1 may be returned to the upper portion of the excavation (see Figure 3) or it may be taken off site for reuse.

3. Storage and Stockpiling

This section describes storage and stockpiling requirements for the Property. Stockpiling shall be conducted in a manner to prevent rain infiltration, erosion, and dust generation.

3.1 GENERAL REQUIREMENTS

Excavated soils at the IMT Expansion Project shall be handled and stored as follows:

- Soil containing MGP residuals shall be stored in a secure manner to prevent exposure to humans and the environment, immediately adjacent to the excavation, where possible.
- Soil will be covered, as necessary, to minimize infiltration of precipitation, to limit dust, to control odors, and/or to prevent erosion of the stockpile. Covered materials shall be properly secured and possess the necessary physical strength to resist tearing by the wind.
- As needed during periods of heavy rain, erosion control procedures shall be used to prevent erosion of materials to nearby catch basins or other stormwater drainage structures.

3.2 TEMPORARY STOCKPILING

During excavation, soil shall be placed next to the excavation. For most excavations it is expected that the material will be returned to the excavation. Rail yard fill material, in addition to soil containing limited amounts of tar and oily debris or oversized debris affected by tar and oil, can also be stored adjacent to the excavation, provided it is returned to the excavation.

3.3 INTERIM STOCKPILING

Interim storage procedures shall be used when excavated soil is held outside of the excavation for an extended period of time. Interim storage may be located adjacent to or near the excavation. Erosion control procedures shall be employed on the stockpiles to prevent runoff, if necessary. In addition, any tidal area fill material segregated due to the presence of observed non-native debris shall be stored in accordance with these guidelines.

3.4 ON-SITE STORAGE

On-site storage is only required for excess soil that cannot be returned to the excavation or spread out at the ground surface adjacent to the excavation areas. The VRAP for the properties allows for the on-site storage of impacted material in “landscape berms.” These berms will be strategically located on the site property and will be constructed to minimize potential long term impacts to the environment or human health.

4. On-Site Reuse or Off-Site Disposal

Excavated soil will either be reused on-site or transported off-site for management. Soil reused on-site may be managed by site workers. Activities associated with off-site management must be conducted and approved by MaineDOT in accordance with this SMP.

4.1 ON-SITE REUSE

Excess soil that is visibly clean (i.e., contains no staining, tar, or oily material) may be appropriate for on-site reuse or taken off-site for reuse. Impacted soils may be placed back into the excavation, taken off site for disposal or placed into landscape berms on the property. The location and dimensions of several proposed landscape berms, designated 1A, 1B, 2A, 2B, 2C and 2D, are summarized on the table and figures included in Appendix B. Other locations may be defined on site as the project progresses.

4.2 OFF-SITE DISPOSAL

Excess soil containing tar, oil, and/or wood chips that cannot be placed back into the excavation of origin or stored on-site in landscape berms requires off-site disposal. This material must be characterized in accordance with state and federal regulations and requirements of the receiving facility.

Segregated tidal fill material containing non-native material will only be removed from the site upon review of associated analytical results of collected composite soil samples. The off-site disposal location will be determined based on the visual characteristics of the material and the comparison of the analytical results to applicable MEDEP soil guidelines.

5. New Condition Discovery

Excavation activities at the Property may expose subsurface conditions, such as the presence of oily liquids or the discovery of a buried structure containing MGP wastes. If such conditions are discovered, the related work shall stop, as necessary, and the appropriate points of contact shall be notified of the finding.

6. Updating the Soil Management Plan

This SMP will be updated as necessary based on changes at the site such as remedial actions or changes in ownership. Revisions to the plan shall be noted on the cover page.

TABLES

TABLE 1
SUMMARY OF TEST PIT EXPLORATIONS
PAN AM PROPERTY - WEST COMMERCIAL STREET
PORTLAND, MAINE

Test Pit Designation	Depth (feet)	Description	Notes
TP-101	0.0-0.2	Vegetative cover - brownish-gray, dry, sandy SILT with rootlets	
	0.2-2.1	Gray to dark gray, dry, ash and cinders with clinkers and coal pieces	S1 1.0-2.0 ft BGS
	2.1-9.0	Brown, moist to wet, gravelly medium to fine sand, little coarse sand, trace silt	Water @ 9.0 ft BGS
	9.0-11.5	Gray, wet, fine sandy SILT, with occasional gravel fragments <i>Bottom of exploration at 11.5 ft, no refusal. No elevated PID readings detected.</i>	
TP-102	0.0-0.5	Vegetative cover - brownish-gray, dry, sandy SILT with rootlets, cinders and ballast material	
	0.5-2.2	Dark gray, dry, coarse to fine SAND, little silt, with ash, cinders, coal pieces and clinkers	
	2.2-4.0	Brown, moist, gravelly coarse to fine SAND, intermixed with grayish-brown fine sandy SILT	Water seeping in at 4.0 ft BGS
	4.0-6.0	Brownish-gray, moist, clayey SILT, trace fine sand, with mottling and blocky texture	
	6.0-8.5	Gray, wet, silty CLAY <i>Bottom of exploration at 8.5 ft, no refusal. No elevated PID readings detected.</i>	
TP-103	0.0-0.2	Vegetative cover - rootlets and ballast material	
	0.2-2.0	Dark gray, dry, ash, cinders, coal pieces and clinkers intermixed with coarse to fine SAND, little silt	
	2.0-7.0	Brown, moist, silty fine SAND, trace medium sand, intermixed with gray-brown gravelly medium to fine SAND, trace coarse sand and silt, with brick pieces	S-1 2.5-3.0 ft BGS
	7.0-12.0	Brown, damp to wet, coarse to fine SAND, trace gravel <i>Bottom of exploration at 12.0 ft, no refusal. No elevated PID readings detected.</i>	Water @ 10.5 ft BGS
TP-104	0.0-0.5	Vegetative cover - rootlets and ballast material and clinkers	
	0.5-2.0	Dark gray to black, dry, ash, cinders, coal and clinker pieces	
	2.0-5.0	Brown, moist, gravelly coarse to fine SAND, intermixed with grayish-brown, silty medium to fine SAND, with occasional boulders	
	5.0-5.5	Brownish-gray, moist to damp, fine sandy SILT to clayey SILT	
	5.5-11.0	Brown, wet, gravelly coarse to fine SAND, with boulders <i>Bottom of exploration at 11.0 ft, no refusal. No elevated PID readings detected.</i>	Water at 8.5 ft BGS
TP-105	0.0-0.4	Vegetative cover - rootlets and ballast material and cinders	
	0.4-1.9	Dark gray to black, dry, ash, cinders with clinkers and coal pieces	
	1.9-4.0	Rusty brown, dry to moist, coarse to fine SAND, intermixed with grayish-brown, silty fine SAND	S1 2.5-3.0 ft BGS
	4.0-11.5	Brown, damp to wet, coarse to fine SAND, trace gravel <i>Bottom of exploration at 11.5 ft, no refusal. No elevated PID readings detected.</i>	Water at 10.0 ft BGS
TP-106	0.0-0.2	Vegetative cover - rootlets and ballast material	
	0.2-2.1	Dark gray to black, dry, ash, cinders with clinkers and coal pieces	
	2.1-8.5	Brown to rusty brown, moist to damp, coarse to fine SAND, little gravel, with cobbles, intermixed with silty fine SAND with brick fragments	
	8.5-11.0	Gray, wet, silty CLAY to clayey SILT, intermixed with brown, coarse to fine SAND, little gravel <i>Bottom of exploration at 11.0 ft, no refusal. No elevated PID readings detected.</i>	Water at 9.0 ft BGS

TABLE 1
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Test Pit Designation	Depth (feet)	Description	Notes
TP-107	0.0-0.5	Vegetative cover - rootlets and ballast material	
	0.5-2.1	Dark gray to black, dry, ash, cinders with ballast, clinkers and coal pieces	S1 1.0-2.0 ft BGS
	2.1-7.0	Rusty brown to brown, moist to damp, medium to fine SAND, little gravel, trace coarse sand and silt, intermixed with gray-brown fine sandy SILT	
	7.0-9.0	Brownish-gray, damp to wet, fine sandy SILT to clayey SILT	
<i>Bottom of exploration at 9.0 ft, no refusal. No elevated PID readings detected.</i>			
TP-108	0.0-0.5	Vegetative cover - rootlets and ballast material	
	0.5-1.8	Dark gray to black, dry, ash, cinders, clinkers and coal pieces intermixed with medium to fine SAND	
	1.8-2.3	Brown, dry to moist, coarse to fine SAND, little gravel, trace silt	
	2.3-5.0	Gray, damp to wet, silty CLAY (CL), mottling to 6.5 ft BGS	
	5.0-10.0	Gray, damp to wet, clayey SILT, trace fine sand	
<i>Bottom of exploration at 10.0 ft, no refusal. No elevated PID readings detected.</i>			
TP-109	0.0-2.1	Dark gray to black, dry, ash, cinders with ballast, clinkers and coal pieces	
	2.1-6.5	Grayish-brown, moist to damp, medium to fine SAND, little gravel, trace coarse sand and silt grading to a grayish-brown silty medium to fine SAND, trace gravel	
<i>Bottom of exploration at 6.5 ft, no refusal. No elevated PID readings detected.</i>			
TP-110	0.0-0.4	Vegetative cover - rootlets with ash, cinders and ballast material	
	0.4-2.0	Dark gray to black, dry, ash, cinders/clinkers and coal pieces with ballast material	
	2.0-4.2	Brown, dry to moist, gravelly medium to fine SAND, little coarse sand, trace silt	
	4.2-6.5	Grayish-brown, damp to moist, clayey SILT, trace fine sand, with mottling	
<i>Bottom of exploration at 6.5 ft, no refusal. No elevated PID readings detected.</i>			
TP-111	0.0-0.4	Vegetative cover - rootlets and black ash material and cinders	
	0.4-1.8	Dark gray to black, dry, ash, cinders with ballast, clinkers and coal pieces	
	1.8-4.5	Rusty brown to brown, moist, coarse to fine sandy GRAVEL, with brick pieces	S1 2.0-3.0 ft BGS
	4.5-8.5	Brownish-gray, moist to wet, medium to fine SAND intermixed with gray clayey SILT	
<i>Bottom of exploration at 8.5 ft, no refusal. No elevated PID readings detected.</i>			
TP-112	0.0-0.2	Vegetative cover - rootlets and black ash, cinders and ballast material	
	0.2-1.7	Dark gray to black, dry, ash, cinders with ballast, clinkers and coal pieces	
	1.7-4.5	Light brown to rusty brown, moist, coarse to fine SAND, little gravel, with cobbles and boulders	
	4.5-8.0	Gray, moist to damp, clayey SILT, trace fine sand	
<i>Bottom of exploration at 8.0 ft, no refusal. No elevated PID readings detected.</i>			
TP-113	0.0-0.2	Vegetative cover - rootlets and black ash, cinders and ballast material	
	0.2-0.5	Dark gray to black, dry, ash, cinders with clinkers and coal pieces	
	0.5-3.0	Grayish-brown, moist, coarse to fine sandy GRAVEL, with cobbles	S1 0.6-0.9 ft BGS
	3.0-7.0	Light brown, moist, medium to fine SAND, trace gravel and silt, with cobbles	
	7.0-9.0	Brownish-gray, wet, fine sandy SILT, grading to a gray clayey SILT	
<i>Bottom of exploration at 9.0 ft, no refusal. No elevated PID readings detected.</i>			

TABLE 1
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PORTLAND, MAINE

Geoprobe Number	Depth (feet)	Description	Notes
TP-114	0.0-0.8	Vegetative cover - rootlets and black ash, cinders, clinkers and coal pieces	
	0.8-5.5	Light brown to brown, dry to moist, gravelly coarse to fine SAND	
	5.5-10.5	Gray, damp to wet, clayey SILT, trace fine sand, grading to a gray silty CLAY <i>Bottom of exploration at 10.5 ft, no refusal. No elevated PID readings detected.</i>	
TP-115	0.0-2.2	Dark gray to black, dry, ash, cinders, clinkers and coal pieces, mixed with glass fragments and metal pieces, with an a layer of apparent white ash material	<i>S1-white ash layer from 1.8-2.2 ft BGS</i>
	2.2-6.5	Brown, moist to damp, medium to fine SAND, trace gravel with cobbles	
	6.5-8.0	Gray, damp to wet, fine sandy SILT to clayey SILT <i>Bottom of exploration at 8.0 ft, no refusal. No elevated PID readings detected.</i>	
TP-116	0.0-0.5	Dark brown, dry, silty SAND with ash, cinders, clinkers and coal pieces	
	0.5-1.5	Light brown, dry to moist, coarse to fine sandy GRAVEL	
	1.5-3.0	Dark gray, moist, ash, cinders with clinkers, coal and brick pieces, in a fine sandy SILT matrix	
	3.0-8.0	Cobble and boulder sized granite pieces <i>Bottom of exploration at 8.0 ft, no refusal. No elevated PID readings detected.</i>	<i>Water at 7.5 ft BGS</i>
TP-117	0.0-0.3	Vegetative cover - rootlets and black ash, cinders, clinkers and coal pieces	
	0.3-2.0	Dark gray to black, dry, ash, cinders, coal pieces and clinkers	
	2.0-2.5	Light brown, moist, coarse to fine SAND, trace gravel	<i>S1 2.0-2.5 ft BGS</i>
	2.5-8.0	Grayish-brown, damp to wet, fine SAND to a clayey SILT	
	8.0-9.5	Brown, wet, coarse to fine SAND, trace gravel <i>Bottom of exploration at 9.5 ft, no refusal. No elevated PID readings detected.</i>	<i>Water at 8.0 ft BGS</i>
TP-118	0.0-0.2	Vegetative cover - dark brown silty fine SAND with rootlets	
	0.2-1.2	Light gray, dry to moist, sandy GRAVEL, trace silt, with ash, cinders and clinkers	
	1.2-2.5	Dark gray to black, dry, ash, cinders, coal pieces and clinkers	
	2.5-5.0	Grayish-brown, moist, silty fine SAND, with occasional gravel pieces	
	5.0-6.5	Cobbles and boulders in a dark brown, silty fine SAND matrix <i>Bottom of exploration at 6.5 ft, no refusal. No elevated PID readings detected.</i>	
TP-119	0.0-0.5	Vegetative cover - rootlets and black ash, cinders, clinkers and coal pieces	
	0.5-2.0	Dark gray to black, dry, ash, cinders, coal pieces and clinkers	<i>S1 1.5-2.0 ft BGS</i>
	2.0-10.0	Light brown to brown, gravelly coarse to fine SAND with cobbles and boulders <i>Bottom of exploration at 10.0 ft, no refusal. No elevated PID readings detected.</i>	<i>Water at 8.5 ft BGS</i>

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PORTLAND, MAINE

Geoprobe Number	Depth (feet)	Description	Notes
TP-120	0.0-0.5	Vegetative cover - rootlets and ash, cinders, clinkers and coal pieces, with ballast	
	0.5-1.8	Dark gray to black, dry, ash, cinders, coal pieces and clinkers	
	1.8-3.3	Light brown, moist, gravelly coarse to fine SAND, with cobbles	
	3.3-4.1	Layer of black peastone-sized coal and clinker pieces	
	4.1-8.0	Granular fill material consisting of granite boulders and brick pieces	bricks from 5-7 ft BGS
	8.0-10.5	Gray, wet, silty fine SAND, little gravel with shell fragments <i>Bottom of exploration at 10.5 ft, no refusal. No elevated PID readings detected.</i>	water @ 8.5 ft BGS
TP-121	0.0-0.2	Vegetative cover - brown loamy SAND with rootlets and ballast material	
	0.2-2.2	Dark gray to brown, dry, ash, cinders, coal pieces and clinkers	
	2.2-2.8	Brown, moist, gravelly medium to fine sand	
	2.8-6.5	Grayish-brown, moist to wet, ash, cinders, clinkers and coal pieces in a coarse to fine SAND matrix with glass fragments	S1 3.0-4.0 ft BGS
	6.5-8.5	Sand and gravel, significant groundwater infiltration <i>Bottom of exploration at 8.5 ft, no refusal. No elevated PID readings detected.</i>	water at 6.5 ft BGS
	TP-122	0.0-0.3	Vegetative cover - rootlets and ash, cinders, clinkers and coal pieces, with ballast
0.3-1.5		Dark gray to black, dry, ash, cinders, coal and clinkers with ballast material	
1.5-3.5		Brown to rusty brown, damp, coarse to fine SAND, little gravel	
3.5-6.5		Gray, moist, clayey SILT to silty CLAY, trace fine sand, with blocky texture	
6.5-10.0		Brown, wet, coarse to fine SAND, little silt, trace gravel <i>Bottom of exploration at 10.0 ft, no refusal. No elevated PID readings detected.</i>	water at 7.0 ft BGS
TP-123		0.0-0.4	Vegetative cover - rootlets and dark gray ash, cinders and coal pieces
	0.4-1.5	Dark gray to black, dry, ash, cinders, coal and clinkers with ballast material	
	1.5-1.8	Light gray, moist, ash, cinders and coal pieces	S1 1.5-1.8 ft BGS
	1.8-10.5	Brown, moist to damp, coarse to fine SAND, with cobbles and boulders <i>Bottom of exploration at 10.5 ft, no refusal. No elevated PID readings detected.</i>	cave-ins
	TP-124	0.0-0.2	Vegetative cover - rootlets with ash, cinders and coal pieces
0.2-1.0		Dark gray to black, dry, ash, cinders, coal and clinkers with ballast material	
1.0-12.0		Light brown, moist to wet, medium to fine SAND, trace gravel and coarse sand <i>Bottom of exploration at 12.0 ft, no refusal. No elevated PID readings detected.</i>	Water at 11.0 ft BGS
TP-125		0.0-1.0	Light brown, dry to moist, silty fine SAND with rootlets
	1.0-6.5	Light brown, moist, coarse to fine SAND, little gravel	
	6.5-8.5	Gray, moist to damp, silty fine SAND (collapsing side-walls) <i>Bottom of exploration at 8.5 ft, no refusal. No elevated PID readings detected.</i>	cave-ins
	TP-126	0.0-0.2	Vegetative cover - ash, cinders, clinkers and ballast material
0.2-2.2		Dark gray to black, dry, ash, cinders with clinkers, coal and brick pieces	
2.2-2.6		Light gray, moist, ash material with clinkers and coal pieces	S1 2.2-2.6 ft BGS
2.6-6.5		Mixture of ash, cinders, clinkers, coal and brick pieces, with granite pieces and miscellaneous wire remnants	
6.5-11.0		Gray, damp to wet, clayey SILT to silty CLAY, with vertical wooden piles <i>Bottom of exploration at 11.0 ft, no refusal. No elevated PID readings detected.</i>	Water at 10.5 ft BGS

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Test Pit Designation	Depth (feet)	Description	Notes
TP-127	0.0-0.3	Vegetative cover - brownish-gray, rootlets within ash, cinders, coal and loamy fine SAND	
	0.3-2.4	Light gray, dry, ash and cinders with clinkers, coal and brick pieces	S1 1.4-2.4 ft BGS
	2.4-5.5	Dark gray to black, moist, ash, cinders with clinkers, coal and ballast material	
	5.5-10.5	Brown to gray, damp to wet, medium to fine SAND, little silt and gravel mixed with fine sandy SILT and silty CLAY <i>Bottom of exploration at 10.5 ft, no refusal. No elevated PID readings detected.</i>	
TP-128	0.0-0.8	Gray, dry, ash and cinders mixed with ballast material	Adj. to crane structure
	0.8-1.3	Light brown, dry, medium to fine SAND	
	1.3-1.5	Dark gray to black, dry, ash, cinders, clinkers and coal pieces	
	1.5-3.8	Brown, moist, gravelly coarse to fine SAND	
	3.8-9.0	Grayish-brown, moist to damp, silty medium to fine SAND, little gravel, trace coarse sand (encountered footing of former crane structure) <i>Bottom of exploration at 9.0 ft, no refusal. No elevated PID readings detected.</i>	water from structure encountered at 9.0 ft BGS
TP-129	0.0-0.7	Dark gray to black, dry, ash, cinders, coal and clinker pieces	Adj. to crane structure
	0.7-8.0	Brown, moist, coarse to fine SAND, little gravel, with cobbles and boulders	concrete foundation extends to 8 ft BGS
	8.0-11.5	Gray, damp to wet, silty CLAY <i>Bottom of exploration at 11.5 ft, no refusal. No elevated PID readings detected. Completed adjacent excavation, designated TP-129A for collection of soil samples.</i>	Cave-ins
TP-130	0.0-0.8	Dark gray to black, dry, ash, cinders, coal and clinker pieces with ballast	
	0.8-3.5	Brown, moist, medium to fine SAND, trace silt, with cobbles and bricks	brick foundation wall encountered
	3.5-4.5	Grayish-brown, moist, fine sandy SILT with brick pieces	
	4.5-12.0	Light brown to gray, moist to wet, coarse to fine SAND, trace gravel <i>Bottom of exploration at 12.0 ft, no refusal. No elevated PID readings detected.</i>	Water at 10.0 ft BGS
TP-131	0.0-1.8	Dark gray to black, dry, ash, cinders with clinkers and coal pieces	
	1.8-11.0	Brown, damp to wet, medium to fine SAND, trace silt intermixed with grayish-brown fine sandy SILT, with gravel pieces <i>Bottom of exploration at 11.0 ft, no refusal. No elevated PID readings detected.</i>	timber pile @ 8 ft BGS
TP-132	0.0-2.5	Dark gray to black, dry, ash, cinders with clinkers and coal pieces, with rootlets	
	2.5-12.0	Rusty brown to gray, moist to wet, medium to fine SAND, little gravel, trace coarse sand and silt <i>Bottom of exploration at 12.0 ft, no refusal. No elevated PID readings detected.</i>	water @ 10 ft BGS

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PORTLAND, MAINE

Test Pit Designation	Depth (feet)	Description	Notes
TP-133	0.0-0.3	Vegetative cover - rootlets with ash, cinders, clinkers and coal pieces	
	0.3-2.2	Gray to dark gray, dry, ash and cinders with clinkers, coal pieces and ballast	
	2.2-3.2	Light brown, moist, coarse to fine SAND, trace gravel	S1 2.2-3.2 ft BGS
	3.2-7.5	Grayish-brown, moist to damp, silty fine SAND, with mottling	water at 7.5 ft BGS
	7.5-10.0	Gray, wet, clayey SILT intermixed with coarse to fine SAND, trace gravel, with black staining and oil-like material (OLM), with naphtha-like odor <i>Bottom of exploration at 11.5 ft, no refusal. No elevated PID readings detected from soils between 0 to 7.5 ft BGS.</i>	S2 8.0-9.0 ft BGS PID=15 ppm
TP-134	0.0-1.5	Gray to dark gray, dry, ash and cinders with clinkers, coal pieces and brick pieces	
	1.5-6.5	Brown, moist to damp, gravelly coarse to fine SAND, trace silt	
	6.5-9.0	Dark gray, damp to wet, gravelly coarse to fine SAND, mixed with fine sandy SILT, with black staining and OLM, with naphtha-like odor <i>Bottom of exploration at 9.0 ft, no refusal. No elevated PID readings detected from soils between 0 to 7.5 ft BGS.</i>	water at 7.5 ft BGS S1 7.5-8.5 ft BGS PID=24 ppm
TP-135	0.0-3.0	Gray to dark gray, dry, ash and cinders with clinkers, coal pieces and brick pieces	
	3.0-6.0	Grayish-brown, moist to damp, medium to fine SAND, with bricks and granite pieces	vertical wooden piles encountered
	6.0-10.0	Brown to gray, damp to wet, coarse to fine SAND, little gravel, mixed with gray clayey SILT, trace fine sand, with organics <i>Bottom of exploration at 10.0 ft, no refusal. No elevated PID readings detected.</i>	S-1 7.5-8.5 ft BGS Water @ 8.5 ft BGS
TP-136	0.0-1.2	Gray to dark gray, dry to moist, ash and cinders with clinkers, coal and brick pieces	
	1.2-6.0	Brown, moist to damp, coarse to fine SAND	
	6.0-9.0	Gray, damp to wet, medium to fine SAND, trace gravel, mixed with fine sandy SILT <i>Bottom of exploration at 9.0 ft, no refusal. No elevated PID readings detected.</i>	Water at 7.5 ft BGS S1 7.5-8.5 ft BGS

NOTES:

1. Test pit explorations were completed between 19 and 23 August 2013 by Mackenzie Landscaping of Winslow, Maine and were monitored by Haley & Aldrich personnel.
2. Soil samples were screened for VOCs with a MiniRAE PID.
3. Refer to Figure 3 for locations of completed test pit excavations.

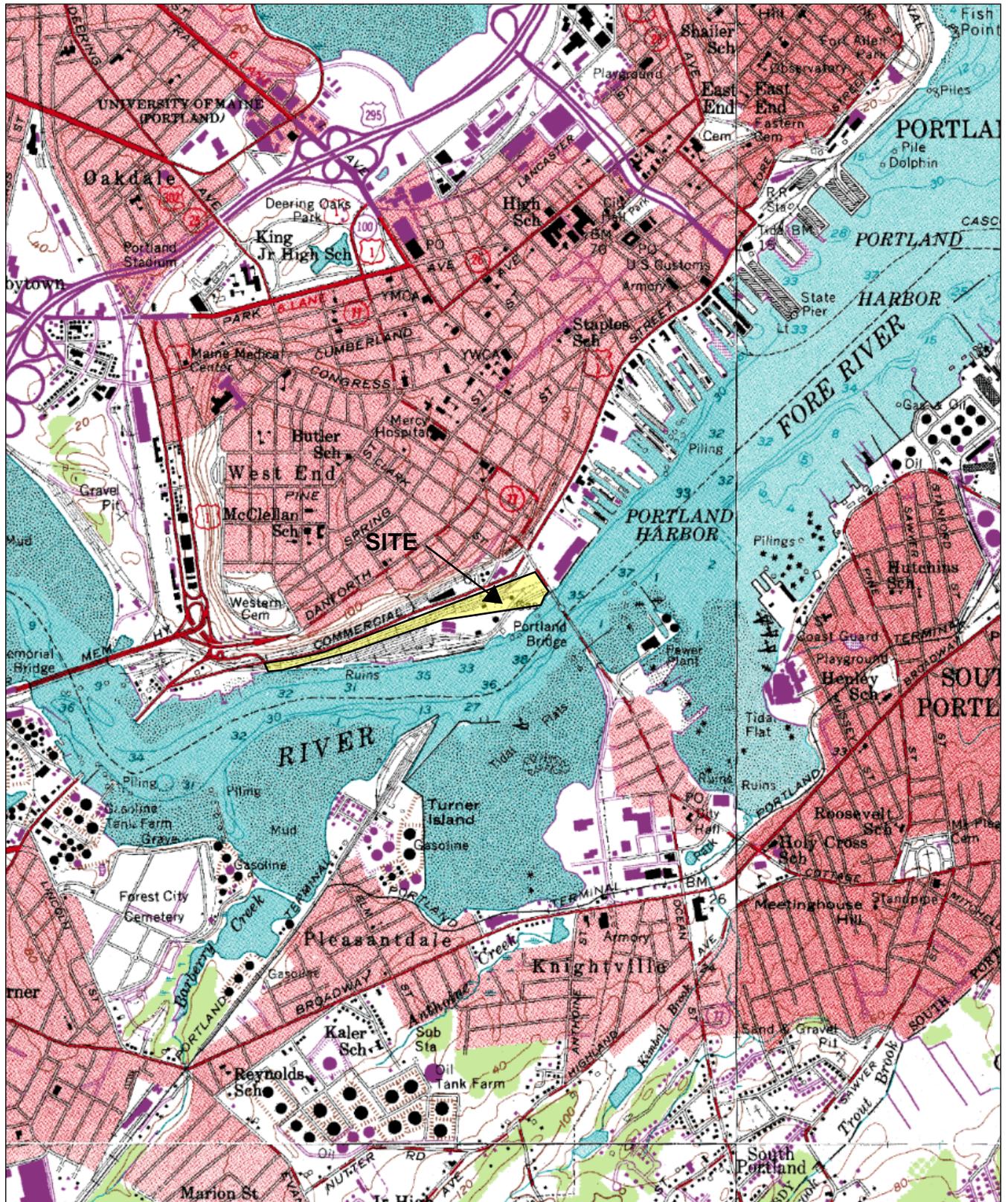
**TABLE 2
SUMMARY OF SOIL TESTING RESULTS
PAN AM PROPERTY - WEST COMMERCIAL STREET
PORTLAND, MAINE**

Parameter ⁽¹⁾	Sample Location Depth (ft BGS)										Maine Remedial Action Guidelines		
	TP-101 1.0-2.0	TP-107 1.0-2.0	TP-117 2.0-2.5	TP-121 3.0-4.0	TP-129A 8.0-9.0	TP-133 8.0-9.0	TP-134 7.5-8.5	TP-135 8.0-9.0	TP-136 7.5-8.5	Residential	Park User	Commercial Worker	Construction Worker
Volatile Organic Compounds													
Semi-Volatile Organic Compounds⁽⁶⁾													
Phenanthrene	0.64	0.43	ND	14.00	ND	77.0	320.0	ND	ND	NA	NA	NA	NA
Fluoranthene	1.60	0.39	ND	14.00	ND	76.0	83.0	ND	ND	3,700	6,200	10,000	10,000
Pyrene	2.00	ND	ND	12.00	ND	47.0	55.0	ND	ND	5,000	8,300	10,000	10,000
Benzo(a)anthracene	1.00	ND	ND	6.10	ND	9.40	12.0	ND	ND	2.6	4.4	35	430
Chrysene	1.30	0.36	ND	6.30	ND	8.20	12.0	ND	ND	260	440	3,500	10,000
Benzo(b)fluoranthene	1.80	0.38	ND	6.10	ND	3.40	ND>7.2	ND	ND	2.6	4.4	35	430.0
Benzo(k)fluoranthene	0.72	ND	ND	2.40	ND	2.10	ND>7.2	ND	ND	26	44	350	4,300
Benzo(a)pyrene	1.10	ND	ND	4.20	ND	2.40	ND>7.2	ND	ND	0.26	0.44	3.5	43
Indeno(1,2,3-cd)pyrene	0.90	ND	ND	2.30	ND	ND	ND>7.2	ND	ND	2.6	4.4	35	430
Benzo(g,h,i)perylene	0.55	ND	ND	1.30	ND	ND	ND>7.2	ND	ND	3,700	6,200	10,000	10,000
Acenaphthene	ND	ND	ND	1.30	ND	4.50	7.90	ND	ND	7,500	10,000	10,000	9,800
Fluorene	ND	ND	ND	1.40	ND	27.0	67.0	ND	ND	5,000	8,300	10,000	10,000
Anthracene	ND	ND	ND	3.00	ND	93.0	72.0	ND	ND	10,000	10,000	10,000	3,800
Dibenzo(a,h)anthracene	ND	ND	ND	0.70	ND	ND	ND>7.2	ND	ND	0.26	0.44	3.5	43.0
PCBs	ND	ND	ND	ND	ND	--	--	--	--	NA	NA	NA	NA
Metals⁽⁶⁾													
Common Range⁽⁴⁾													
Arsenic	10.1	13.0	3.5	11.0	7.0	14.0	7.9	10.3	4.8	1.4	2.3	4.2	42
Barium	116.0	82.8	14.8	96.7	42.8	47.4	21.1	47.1	27.9	10,000	10,000	10,000	10,000
Chromium	19.8	19.7	7.01	19.1	22.2	25.2	14.0	28.7	17.1	10,000	10,000	10,000	10,000
Lead	79.9	165.0	48.3	157.0	6.7	6.8	7.2	10.8	3.9	340	530	1,100	950
Mercury	0.437	2.74	ND	1.66	ND	ND	ND	ND	ND	51	85	510	930



- NOTES:**
- Results, guidelines and ranges are listed in parts per million (ppm or mg/kg). Refer to Figure 2 of this report for locations of samples collected by Haley & Aldrich from test pit excavations performed on 19-23 August 2013.
 - Source of Information: Appendix 2 - Maine Remedial Action Guidelines for Soil for Multiple Contaminants; Maine Department of Environmental Protection, Revised May 8, 2013.
 - Common Range of Metals in Soil. Source of Information: Table 6.46 - Trace Element Content of Soils, W.L. Lindsay, Chemical Equilibria in Soils, John Wiley & Sons, New York, 1979.
 - Only detected metals and compounds are listed.
NA - No known guideline or common range or not applicable
-- Sample not analyzed for this parameter
ND - Compound or metal not detected

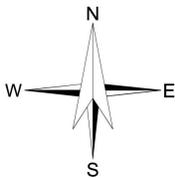
FIGURES



SITE COORDINATES: 43°38'42"N, 70°15'43"W

**HALEY
ALDRICH**

INTERNATIONAL MARINE TERMINAL
WEST COMMERCIAL STREET
PORTLAND, MAINE



U.S.G.S. QUADRANGLE: PORTLAND WEST, ME

PROJECT LOCUS

SCALE: 1:24,000
FEBRUARY 2015

FIGURE 1



INTERNATIONAL MARINE TERMINAL
PORTLAND, MAINE

HALEY ALDRICH

PROPERTY BOUNDARY PLAN

NOT TO SCALE
FEBRUARY 2015

FIGURE 2

NOTES:

1. BASE PLAN OBTAINED FROM GOOGLE EARTH, US DEPT. OF STATE GEOGRAPHER, 2013 GOOGLE.
2. DESIGNATED PROPERTY BOUNDARIES WERE DETERMINED FROM "BOUNDARY & TOPOGRAPHIC SURVEY OF WEST COMMERCIAL STREET," DATED 4 APRIL 2014 PREPARED BY OWEN HESKELL, INC. FOR TRTB & MAINE DOT.

LEGEND:

- APPROXIMATE SITE PROPERTY BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY FOR NEW YARD, LLC
- (A) INLAND PARCEL - FORMER UNITIL PROPERTY
- (B) SHORELINE PARCEL - FORMER UNITIL PROPERTY
- (C) EXISTING UNITIL PROPANE STORAGE/DISTRIBUTION FACILITY
- (D) FORMER PANAM PROPERTY



HALEY ALDRICH
INTERNATIONAL MARINE TERMINAL
PORTLAND, MAINE

**WESTERN PROPERTY BOUNDARY
SITE AND EXPLORATION LOCATION
PLAN**

NOT TO SCALE
FEBRUARY 2015

FIGURE 3
SHEET 1 OF 2

NOTES:

1. BASE PLAN OBTAINED FROM GOOGLE EARTH, US DEPT. OF STATE GEOGRAPHER, 2013 GOOGLE.
2. TEST PIT EXCAVATIONS WERE PERFORMED BY MACKENZIE CONSTRUCTION OF WINSLOW, MAINE BETWEEN 19 AND 23 AUGUST 2013. ALL EXPLORATIONS WERE MONITORED BY HALEY & ALDRICH PERSONNEL.
3. TEST PIT LOCATIONS ARE APPROXIMATE AND WERE DETERMINED BY TAPING/PACING DISTANCES FROM EXISTING SITE FEATURES.
4. DESIGNATED PROPERTY BOUNDARIES WERE DETERMINED FROM "BOUNDARY & TOPOGRAPHIC SURVEY, WEST COMMERCIAL STREET," DATED 4 APRIL 2014 PREPARED BY OWEN HESKELL, INC. FOR HNTB & MAINE DOT.

LEGEND:

TP-114	[Symbol]	DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PIT EXCAVATION	
	[Blue dashed line]	APPROXIMATE SITE PROPERTY BOUNDARY	
	[Red dashed line]	APPROXIMATE PROPERTY BOUNDARY FOR NEW YARD, LLC	



INTERNATIONAL MARINE TERMINAL
PORTLAND, MAINE

HALEY & ALDRICH

**EASTERN PROPERTY BOUNDARY
SITE AND EXPLORATION LOCATION
PLAN**

NOT TO SCALE
FEBRUARY 2015

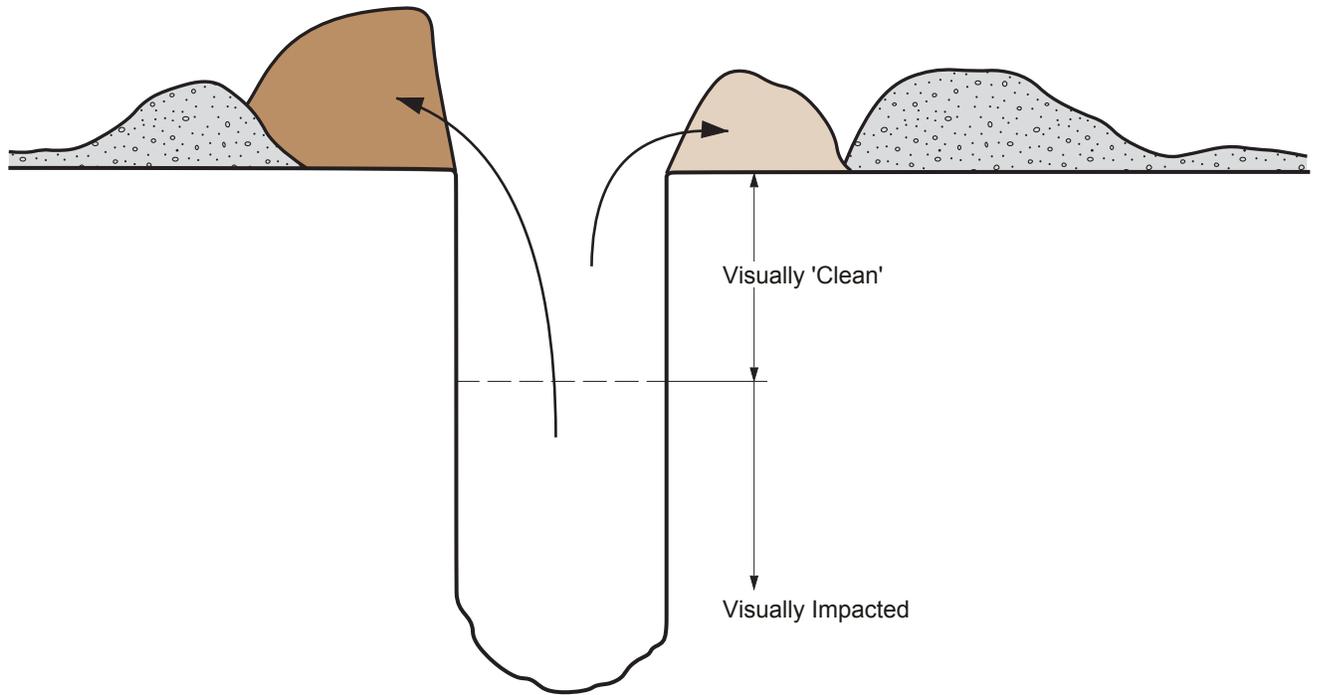
FIGURE 3
SHEET 2 OF 2

LEGEND:

- TP-114
- DESIGNATION AND APPROXIMATE LOCATION OF COMPLETED TEST PIT EXCAVATION
- APPROXIMATE SITE PROPERTY BOUNDARY
- APPROXIMATE PROPERTY BOUNDARY FOR NEW YARD, LLC

NOTES:

1. BASE PLAN OBTAINED FROM GOOGLE EARTH, US DEPT. OF STATE GEOGRAPHER, 2013 GOOGLE.
2. TEST PIT EXCAVATIONS WERE PERFORMED BY MACKENZIE CONSTRUCTION OF WINNSLOW, MAINE BETWEEN 19 AND 23 AUGUST 2013. ALL EXPLORATIONS WERE MONITORED BY HALEY & ALDRICH PERSONNEL.
3. TEST PIT LOCATIONS ARE APPROXIMATE AND WERE DETERMINED BY TAPING/PACING DISTANCES FROM EXISTING SITE FEATURES.
4. DESIGNATED PROPERTY BOUNDARIES WERE DETERMINED FROM "BOUNDARY & TOPOGRAPHIC SURVEY, WEST COMMERCIAL STREET," DATED 4 APRIL 2014 PREPARED BY OWEN HESKELL, INC. FOR HNTB & MAINE DOT.

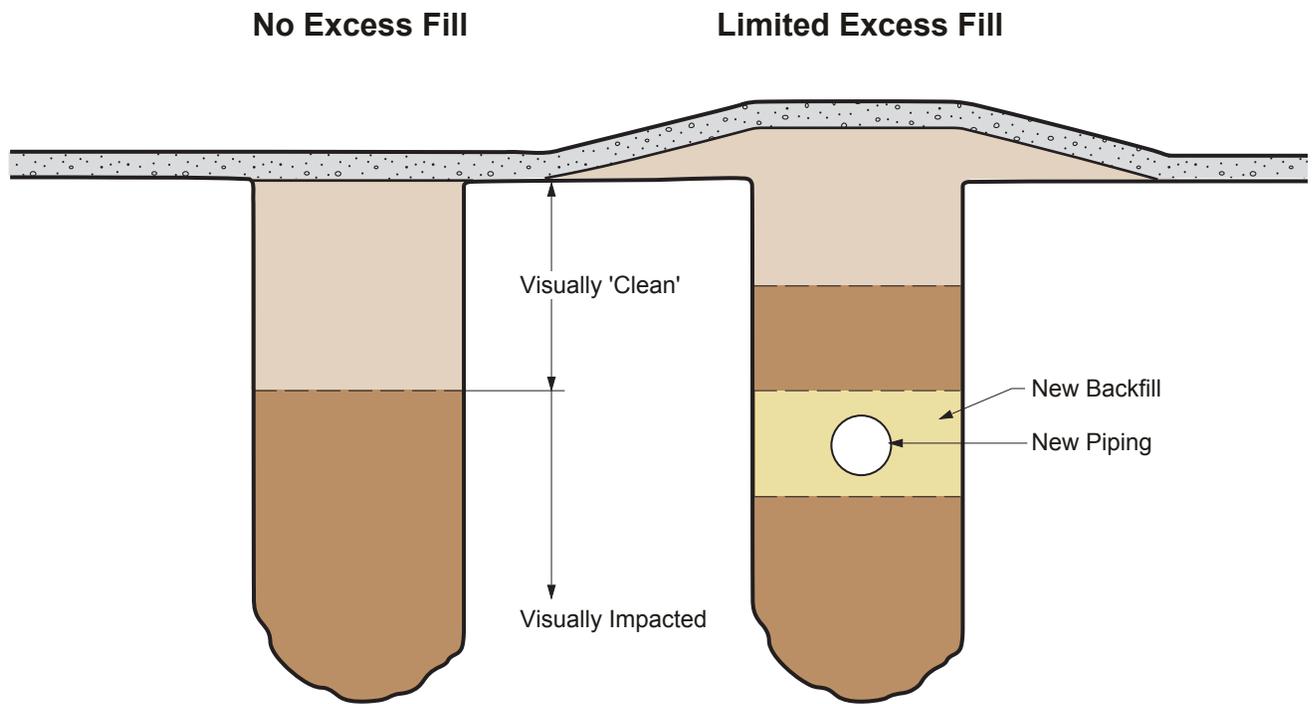


LEGEND

- Visually 'Clean' Soil
- Visually Impacted ('stained') Soil
- Gravel Cover Material

Figure 4
 Excavation Protocol
 MaineDOT
 International Marine Terminal
 Portland, ME

Haley & Aldrich



LEGEND

- Visually 'Clean' Soil
- Visually Impacted ('stained') Soil
- Imported Backfill
- Gravel Cover Material

Figure 5
 Backfilling Protocol
 MaineDOT
 International Marine Terminal
 Portland, ME

Haley & Aldrich

APPENDIX A

On-Site Material Storage Information

Common Excavation On-Site Material Storage

General Information

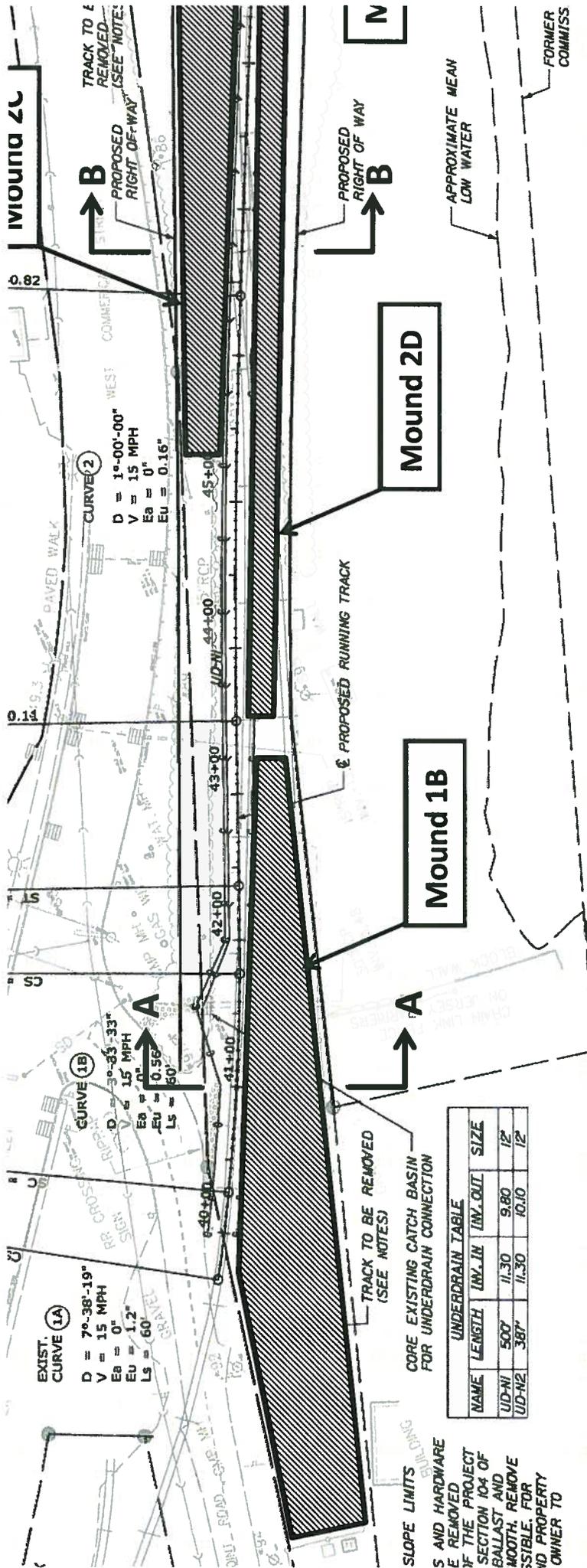
1. Assume the material must be stored on-site in mounds along the railroad corridor.
2. Temporary storage of the material (prior to mounding) may be achieved within the MaineDOT property outside of New Yard access ways.
3. Mounds shall be treated with a surficial application of mulch and/or wild flower seed mix as directed by the MaineDOT.

Revision: REV 01
Updated: July 30, 2014

Mound (Location)	Order of Work	Section View <small>(see graphics)</small>	Sta. - Sta.	Height <small>(ft., approx.)</small>	Side Slopes	Storage Volume <small>(cy, est.)</small>	Surface Area <small>(sy, est.)</small>	Notes
1A	1	D	53+70 to 61+50	4	2:1	2,400	1,900	(1), (3)
1B	2	A	40+00 to 43+00	6	2:1	4,000	3,000	(1), (4)
2A	3	E	61+70 to 65+00	4	2:1	900	850	(2)
2B	4	C	49+20 to 53+50	6	2:1	4,000	2,750	(2)
2C	5	B	45+25 to 49+00	6	2:1	1,400	1,700	(2)
2D	6	B	43+50 to 49+00	4	2:1	1,800	1,600	(2)
TOTALS						14,500	11,800	

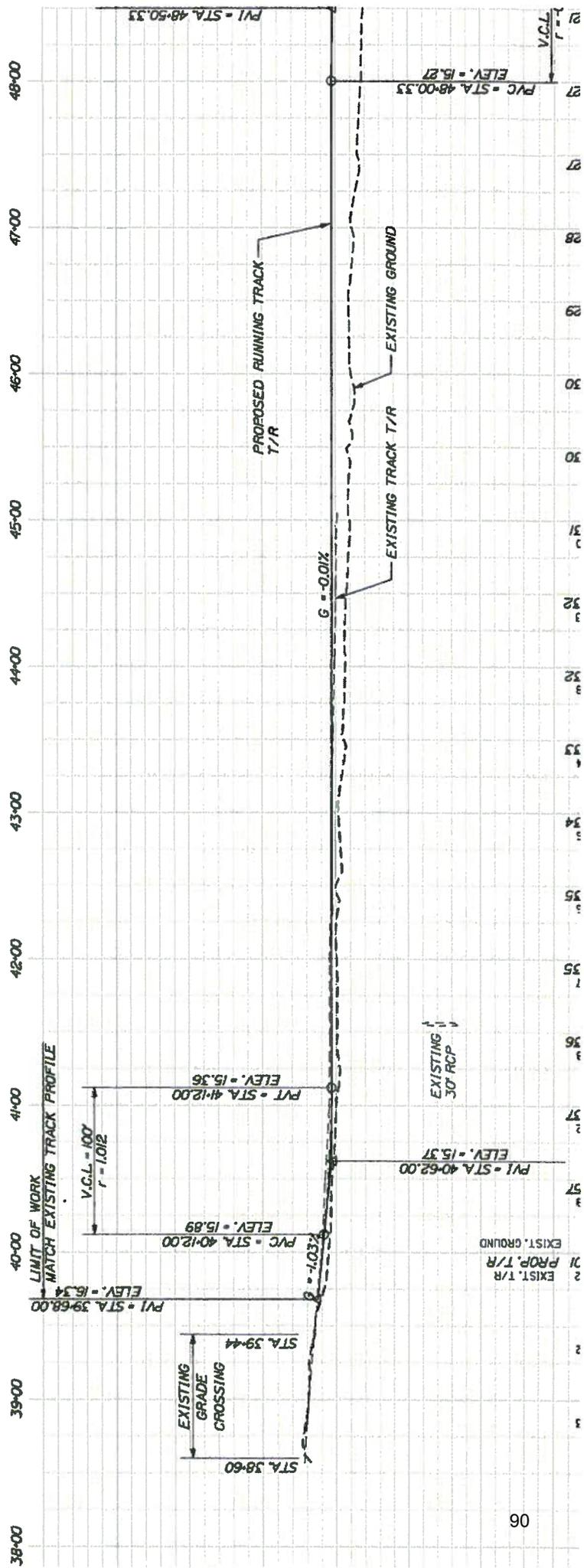
Notes:

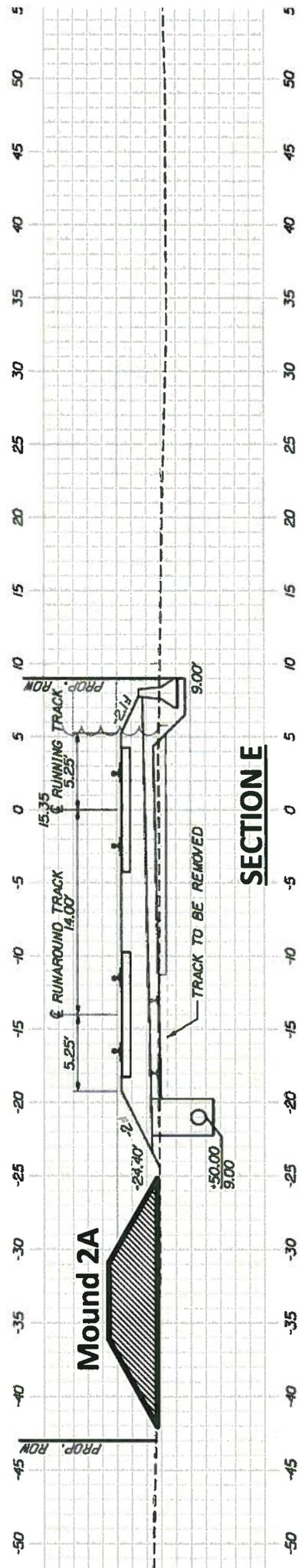
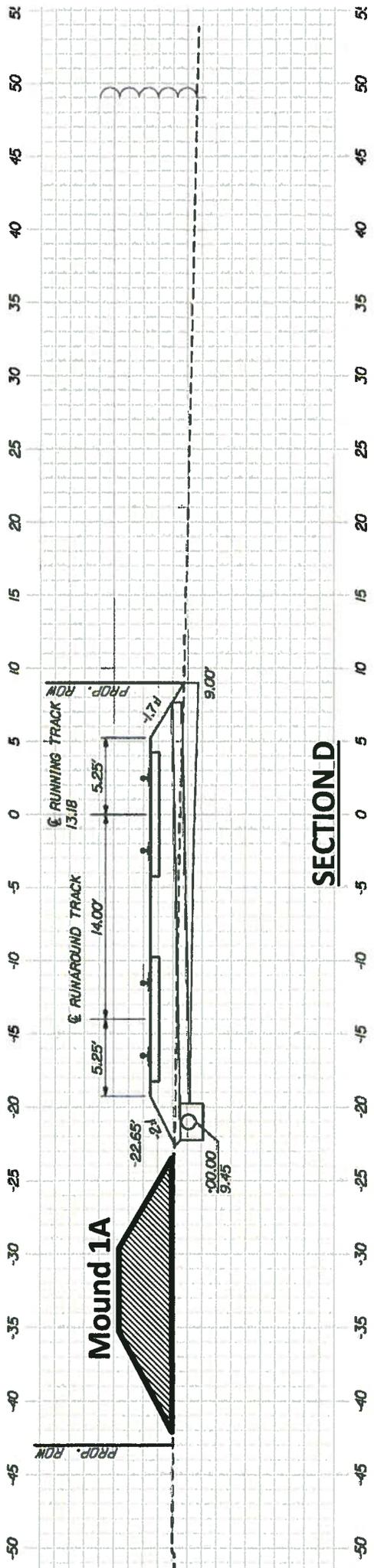
1. No schedule restrictions. The mound may be constructed at any time during the project.
2. Schedule restricted. The mound may only be constructed once new track is in service and existing railroad tracks are removed.
3. At proposed 50-ft wide crossing, the mound shall be discontinued in favor of the design materials and dimensions of the crossing.
4. The beginning station extends westward along the Cassidy Point Rd property line as shown on the plan view.



UNDERDRAIN TABLE

NAME	LENGTH	IN. IN	IN. OUT	SIZE
UD-N1	50'	11.30	9.80	12"
UD-N2	38'	11.30	10.10	12"





STANDARD DETAIL UPDATES

Standard Details and Standard Detail updates are available at:
<http://maine.gov/mdot/contractors/publications/standarddetail/>

<u>Detail #</u>	<u>Description</u>	<u>Revision Date</u>
501(02)	Pipe Pile Splice	3/05/2015
501(03)	H – Pile Splice	3/05/2015
504(07)	Diaphragm & Crossframe Notes	10/13/2015
507(13)	Steel Bridge Railing	6/03/2015
507(14)	Steel Bridge Railing	6/03/2015
507(31)	Barrier – Mounted Steel Bridge	8/06/2015
526(02)	Temporary Concrete Barrier	8/06/2015

SUPPLEMENTAL SPECIFICATIONS
(Corrections, Additions, & Revisions to Standard Specifications - November 2014)

SECTION 101
CONTRACT INTERPRETATION

101.2 Definitions

Page 1-5 – Remove the definition of Bridge in its entirety and replace with:

“Bridge A structure that is erected over a depression or an obstruction, such as water, a highway or a railway, and has an opening measured along the centerline of the Roadway of more than 20 feet between: The faces of abutments; spring line of arches; extreme ends of openings of box culverts, pipes or pipe arches; or the extreme ends of openings for multiple box culverts, pipes or pipe arches.”

Page 1-12 – Remove the definition of Large Culvert in its entirety and replace with:

“Large Culvert Any structure not defined as a Culvert or Bridge that provides a drainage or non-drainage opening under the Roadway or Approaches to the Roadway, with an opening that is 5 feet but less than 10 feet.”

Remove the definition of Minor Span in its entirety and replace with:

“Minor Span Same definition as Bridge, except having an opening of between 10 feet and 20 feet, inclusive.”

SECTION 104
GENERAL RIGHTS AND RESPONSIBILITIES

104.5.5 Prompt Payment of Subcontractors Add the following paragraph to this subsection:

C. Payment Tracking Federal Projects On federally funded projects, the prime contractor, subcontractors and lower-tier subcontractors will track and confirm the delivery and receipt of all payments through the Elation System. They will be responsible for entering all payments to all sub and lower tier contractors. MaineDOT will run a query monthly to ensure that contractors are complying and generate an e-mail to contractors who have not responded to confirm receipt of MaineDOT payment or contractor payment to lower tier subcontractors.

SECTION 105
GENERAL SCOPE OF WORK

105.4.5 Special Detours Remove this subsection in its entirety and replace with:

“105.4.5 Maintenance of Existing Structures When a new Bridge or Minor Span is being installed on a new alignment and the existing structure is to remain in service, the Department will maintain the existing structure and the portions of the roadway required for maintaining traffic until such time that the new structure is opened to traffic and the existing structure is taken out of service. A similar situation exists when a new Bridge or Minor Span is being installed on the same alignment as the existing structure, requiring a

temporary detour to be installed by the Contractor per Section 510, Special Detours, prior to removal of the existing structure. In this case, the Department will maintain the existing structure and the portions of the existing roadway required for maintaining traffic until such time that either the temporary detour is opened to traffic or the Contractor begins any work on the existing structure, including, but not limited to, repairs, modifications, moving, demolition or removal. In either case, once the new structure or temporary detour is opened to traffic, or the Contractor begins any work on the existing structure, the Contractor shall be solely responsible for all maintenance of the existing structure and the portions of the existing approaches that lie outside the new roadway or the temporary detour, respectively. This specification is not intended to supersede Standard Specification Section 104.3.11, Responsibility for Property of Others.”

105.6.2.4 Department Verification Add the following to the end of the first sentence: “or other approved method, such as reference staking, to allow the Department to independently verify the accuracy of the work, as approved by the Department.”

SECTION 106 **QUALITY**

106.4.1 General - In the first sentence, remove “When required by Special Provision,” and replace with “When required elsewhere in the Contract, ”

SECTION 108 **PAYMENT**

108.3 Retainage - Remove the paragraph beginning with “ The Contractor may withdraw...” in its entirety.

108.4.1 Price Adjustment for Hot Mix Asphalt:
Remove this section in its entirety and replace with the following

For all contracts with hot mix asphalt in excess of 500 tons total, a price adjustment for performance graded binder will be made for the following pay items:

Item 403.102	Hot Mix Asphalt – Special Areas
Item 403.206	Hot Mix Asphalt - 25 mm
Item 403.207	Hot Mix Asphalt - 19 mm
Item 403.2071	Hot Mix Asphalt - 19 mm (Polymer Modified)
Item 403.2072	Hot Mix Asphalt - 19 mm (Asphalt Rich Base)
Item 403.208	Hot Mix Asphalt - 12.5 mm
Item 403.2081	Hot Mix Asphalt - 12.5 mm (Polymer Modified)
Item 403.209	Hot Mix Asphalt - 9.5 mm (sidewalks, drives, & incidentals)
Item 403.210	Hot Mix Asphalt - 9.5 mm
Item 403.2101	Hot Mix Asphalt - 9.5 mm (Polymer Modified)
Item 403.2102	Hot Mix Asphalt - 9.5 mm (Asphalt Rich Base)
Item 403.2104	Hot Mix Asphalt - 9.5 mm (Thin Lift Surface Treatment)

Item 403.21041	Hot Mix Asphalt - 9.5 mm (Polymer Modified Thin Lift Surface Treatment)
Item 403.211	Hot Mix Asphalt – Shim
Item 403.2111	Hot Mix Asphalt – Shim (Polymer Modified)
Item 403.212	Hot Mix Asphalt - 4.75 mm (Shim)
Item 403.213	Hot Mix Asphalt - 12.5 mm (base and intermediate course)
Item 403.2131	Hot Mix Asphalt - 12.5 mm (base and intermediate course Polymer Modified)
Item 403.2132	Hot Mix Asphalt - 12.5 mm (Asphalt Rich Base and intermediate course)
Item 403.214	Hot Mix Asphalt - 4.75 mm (Surface)
Item 403.235	Hot Mix Asphalt (High Performance Rubberized HMA)
Item 403.301	Hot Mix Asphalt (Asphalt Rubber Gap-Graded)
Item 404.70	Colored Hot Mix Asphalt – 9.5mm (Surface)
Item 404.72	Colored Hot Mix Asphalt – 9.5mm (Islands, sidewalks, & incidentals)
Item 461.13	Light Capital Pavement
Item 462.30	Ultra-Thin Bonded Wearing Course
Item 462.301	Polymer Modified Ultra-Thin Bonded Wearing Course

Price adjustments will be based on the variance in costs for the performance graded binder component of hot mix asphalt. They will be determined as follows:

The quantity of hot mix asphalt for each pay item will be multiplied by the performance graded binder percentages given in the table below times the difference in price between the base price and the period price of asphalt cement. Adjustments will be made upward or downward, as prices increase or decrease.

- Item 403.102–6.2%
- Item 403.206–4.8%
- Item 403.207–5.2%
- Item 403.2071–5.2%
- Item 403.2072–5.8%
- Item 403.208–5.6%
- Item 403.2081–5.6%
- Item 403.209–6.2%
- Item 403.210–6.2%
- Item 403.2101–6.2%
- Item 403.2102–6.8%
- Item 403.2104–6.2%
- Item 403.21041–6.2%
- Item 403.211–6.2%
- Item 403.2111–6.2%
- Item 403.212–6.8%
- Item 403.213–5.6%
- Item 403.2131–5.6%
- Item 403.2132–6.2%

Item 403.214–6.8%
Item 403.235–5.5%
Item 403.301–6.2%
Item 404.70–6.2%
Item 404.72–6.2%
Item 461.13–6.5%
Item 462.30–0.0021 tons/SY
Item 462.301–0.0021 tons/SY

Hot Mix Asphalt: The quantity of hot mix asphalt will be determined from the quantity shown on the progress estimate for each pay period.

Base Price: The base price of performance graded binder to be used is the price per standard ton current with the bid opening date. This price is determined by using the average New England Selling Price (Excluding the Connecticut market area), as listed in the Asphalt Weekly Monitor.

Period Price: The period price of performance graded binder will be determined by the Department by using the average New England Selling Price (Excluding the Connecticut market area), listed in the Asphalt Weekly Monitor current with the paving date. The maximum Period Price for paving after the adjusted Contract Completion Date will be the Period Price on the adjusted Contract Completion Date.

SECTION 109 **CHANGES**

109.5.1 Definitions - Types of Delays

Delete Paragraph ‘A’ in its entirety and replace with:

“A. Excusable Delay Except as expressly provided otherwise by this Contract, an "Excusable Delay" is a Delay to the Critical Path that is directly and solely caused by (1) a weather related Event of such an unusually severe nature that a Federal Emergency Disaster is declared. The Contractor will only be entitled to an adjustment of time if the Project falls within the geographic boundaries prescribed under the disaster declaration. or (2) a flooding event at the effected location of the Project that results in a Q25 headwater elevation, or greater, but less than a Q50 headwater elevation. Theoretical headwater elevations will be determined by the Department; actual headwater elevations will be determined by the Contractor and verified by the Department or (3) An Uncontrollable Event.”

APPENDIX A TO DIVISION 100

Remove Section D in its entirety as this is now covered in Section 105.10 EQUAL OPPORTUNITY AND CIVIL RIGHTS.

SECTION 203
EXCAVATION AND EMBANKMENT

203.02 Materials

At the bottom of page 2-12, add as the first item in the list:

Crushed Stone, ¾ inch 703.13

203.042 Rock Excavation and Blasting

On page 2-16, add the word “**No**” to the third sentence in Section 5 Submittals, Subsection V, 1 so that it reads:

“No blasting products will be allowed on the job site if the date codes are missing.”

SECTION 304
AGGREGATE BASE AND SUBBASE COURSE

304.02 Aggregate

Remove the sentence “Aggregate for base and subbase courses shall be material meeting the aggregate type requirements specified in the following table” in its entirety and the table that follows it with headings of ‘Material’ and ‘Aggregate Type’.

304.02 – Aggregate Add the following sentence before the sentence starting with “When designated on the plans...”: **“Aggregate Base Course – Type C will be capped with 2” of millings or Untreated Aggregate Surface Course – Type B. Payment for this material will be made under 304.16”**

SECTION 307
FULL DEPTH RECYCLED PAVEMENT

Remove this Section in its entirety and replace with:

SECTION 307
FULL DEPTH RECYCLING
(UNTREATED OR TREATED WITH EMULSIFIED ASPHALT STABILIZER)

307.01 Description This work shall consist of pulverizing a portion of the existing roadway structure into a homogenous mass, adding an emulsified asphalt stabilizer (if required) to the depth of the pulverized material specified in the contract, placing and compacting this material to the lines, grades, and dimensions shown on the plans or established by the Resident.

MATERIALS

307.02 Pulverized Material Pulverized material shall consist of the existing asphalt pavement layers and one inch or more as specified of the underlying gravel, pulverized

and blended into a homogenous mass. Pulverized material will be processed to 100% passing a 2 inch square mesh sieve.

307.021 New Aggregate and Additional Recycled Material New aggregate, if required by the contract, shall meet the requirements of Subsection 703.10 - Aggregate for Untreated Surface Course and Leveling Course, Type A. Aggregate Subbase Course Gravel Type D processed to 100 percent passing a 2 inch square mesh sieve and meeting the requirements of 703.06 – Aggregate for Base and Subbase may be used in areas requiring depths greater than 2 inches. New aggregate, will be measured and paid for under the appropriate item.

Recycled material, if required, shall consist of salvaged asphalt material from the project or from off-site stockpiles that has been processed before use to 100 percent passing a 2 inch square mesh sieve. Recycled material shall be conditionally accepted at the source by the Resident. It shall be free of winter sand, granular fill, construction debris, or other materials not generally considered asphalt pavement.

Recycled material generated and salvaged from the project shall be used within the roadway limits to the extent it is available as described in 307.09. No additional payment will be made for material salvaged from the project.

Recycled material supplied from off-site stockpiles shall be paid for as described in the contract, or by contract modification.

307.022 Emulsified Asphalt Stabilizer. If required, the emulsified asphalt stabilizer shall be grade MS-2, MS-4, SS-1, or CSS-1 meeting the requirements of Subsection 702.04 Emulsified Asphalt.

307.023 Water Water shall be clean and free from deleterious concentrations of acids, alkalis, salts or other organic or chemical substances.

307.024 Portland Cement If required, Portland Cement shall be Type I or II meeting the requirements of AASHTO M85.

307.025 Hydrated Lime If required, Hydrated Lime shall meet the requirements of AASHTO M216.

EQUIPMENT

307.03 Pulverizer The pulverizer shall be a self-propelled machine, specifically manufactured for full-depth recycling work and capable of reducing the required existing materials to a size that will pass a 2 inch square mesh sieve. The machine shall be equipped with standard automatic depth controls and must maintain a consistent cutting depth and width. The machine also shall be equipped with a gauge to show depth of material being processed.

307.04 Liquid Mixer Unit or Distributor. If treatment of the recycled layer with emulsified asphalt is required by the contract, a liquid mixing unit or distributor shall be

used to introduce the emulsified asphalt stabilizer into the pulverized material. The mixing unit shall contain a liquid distribution and mixing system which has been specifically manufactured for full-depth recycling work, capable of mixing the pulverized material with an evenly metered distribution of emulsified asphalt into a homogeneous mixture, to the depth and width required.

The mixing unit shall be designed, equipped, maintained, and operated so that emulsified asphalt stabilizer at constant temperature may be applied uniformly on variable widths of pulverized material up to 6 feet at readily determined and controlled rates from 0.01 to 1.06 gal/yd² with uniform pressure and with an allowable variation from any specified rate not to exceed 0.01 gal/ yd². Mixing units shall include a tachometer, pressure gages, and accurate volume measuring devices or a calibrated tank and a thermometer for measuring temperatures of tank contents.

307.041 Cement or Lime Spreader If required by the contract, spreading of the Portland Cement or Hydrated Lime shall be done with a spreader truck designed to spread dry particulate (such as Portland Cement or Lime) or other approved means to insure a uniform distribution across the roadway and minimize fugitive dust. Pneumatic application, including through a slotted pipe, will not be permitted. Other systems that have been developed include fog systems, vacuum systems, etc. Slurry applications may also be accepted. The Department reserves the right to accept or reject the method of spreading cement. The Contractor shall provide a method for verifying that the correct amount of cement is being applied.

307.05 Placement Equipment Placement of the Full Depth recycled material to the required slope and grade shall be done with an approved highway grader or by another method approved by the Resident.

307.06 Rollers The full depth recycled material shall be rolled with a vibratory pad foot roller, a vibratory steel drum soil compactor and a pneumatic tire roller. The pad foot roller drum shall have a minimum of 112 tamping feet 3 inches in height, a minimum contact area per foot of 17 inch², and a minimum width of 84 inches. The vibratory steel drum roller shall have a minimum 84 inch width single drum. The pneumatic tire roller shall meet the requirements of Section 401.10 and the minimum allowable tire pressure shall be 85 psi.

MIX DESIGN

If treatment of the recycled layer with emulsified asphalt is required by the contract, the Department will supply a mix design for the emulsified asphalt stabilized material based on test results from pavement and soil analysis taken to the design depth. The Department will provide the following information prior to construction:

1. Percent of emulsified asphalt to be used.
2. Quantity of lime or cement to be added.
3. Optimum moisture content for proper compaction.
4. Additional aggregate (if required).

After a test strip has been completed or as the work progresses, it may be necessary for the Resident to make necessary adjustments to the mix design. Changes to compensation will be in accordance with the Mix Design Special Provision.

CONSTRUCTION REQUIREMENTS

307.06 Pulverizing The entire depth of existing pavement shall be pulverized together with 1 inch or more of the underlying gravel into a homogenous mass. All pulverizing shall be done with equipment that will provide a homogenous mass of pulverized material, processed in-place, which will pass a 2 inch square mesh sieve.

307.07 Weather Limitations Full depth recycled work shall be performed when;

- A. Recycling operations will be allowed between May 15th and September 15th inclusive in Zone 1 - Areas north of US Route 2 from Gilead to Bangor and north of Route 9 from Bangor to Calais.
- B. The atmospheric temperature, as determined by an approved thermometer placed in the shade at the recycling location, is 50°F and rising.
- C. When there is no standing water on the surface.
- D. During generally dry conditions, or when weather conditions are such that proper pulverizing, mixing, grading, finishing and curing can be obtained using proper procedures, and when compaction can be accomplished as determined by the Resident.
- E. When the surface is not frozen and when overnight temperatures are expected to be above 32°F.
- F. Wind conditions are such that the spreading of lime or cement on the roadway ahead of the recycling machine will not adversely affect the operation.

307.08 Surface Tolerance The complete surface of the Full Depth Recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of 3/8 inch.

307.09 Full Depth Recycling Procedure New aggregate or recycled material meeting the requirements of Section 307.021 - New Aggregate and Additional Recycled Material, shall be added as necessary to restore cross-slope and/or grade before pulverizing. Locations will be shown on the plans or described in the construction notes. The Resident may add other locations while construction of the project is in progress. The Contractor will use recycled material to the extent it is available, in lieu of new aggregate. The material shall then be pulverized, processed, and blended into a homogeneous mass passing a 2 inch square mesh sieve. Material found not pulverized down to a 2 inch size will be required to be reprocessed by the recycler with successive passes until approved by the Resident.

Should the Contractor be required to add new aggregate or recycled material to restore cross-slope and/or grade after the initial pulverizing process, those areas will require re-processing to blend into a homogenous mass passing a 2 in square mesh sieve.

Sufficient water shall be added during the recycling process to maintain optimum moisture for compaction.

The resultant material from the initial pulverizing processes shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade. The completed surface of the full depth recycled course shall be shaped and maintained to a tolerance, above or below the required cross sectional shape, of $\frac{3}{8}$ inch. Areas not meeting this tolerance will be repaired as described in Section 307.091. The initial pulverizing process density requirements will be the same as Section 307.101 unless otherwise directed by the Resident.

Additives, if required, shall be introduced following completion of the initial pulverizing and blending process. Emulsified asphalt stabilizer shall be incorporated into the top of the processed material as specified in section 307.04 to the depth specified in the contract by use of the liquid mixer unit or a distributor, at the rate specified in the mix design. The emulsified asphalt shall then be uniformly blended into a homogeneous mass until an apparent uniform distribution has occurred. The rate of application may be adjusted as necessary by the Resident. Cement or lime shall be introduced as described in section 307.041. The resultant material shall be graded and compacted to the cross-slope and profile shown on the plans or as directed by the Resident. The Contractor will also be responsible for re-establishing the existing profile grade.

After final compaction, the roadway surface shall be treated with a light application of water, and rolled with pneumatic-tired rollers to create a close-knit texture. The finished layer shall be free from:

- A. Surface laminations.
- B. Segregation of fine and coarse aggregate.
- C. Corrugations, centerline differential, potholes, or any other defects that may adversely affect the performance of the layer, or any layers to be placed upon it.

The Contractor shall protect and maintain the recycled layer until a lift of pavement is applied. Any damage or defects in the layer shall be repaired immediately. An even and uniform surface shall be maintained. The recycled surface shall be swept prior to hot mix asphalt overlay placement.

307.091 Repairs Repairs and maintenance of the recycled layers, resulting from damage caused by traffic, weather or environmental conditions, or resulting from damage caused by the Contractor's operations or equipment, shall be completed at no additional cost to the Department.

For recycled layers stabilized with emulsified asphalt, low areas will be repaired using a hot mix asphalt shim. Areas up to 1 inch high can be repaired by milling or shimming with hot mix asphalt. Areas greater than 1 inch high will be repaired using a hot mix

asphalt shim. All repair work will be done with the Resident's approval at the Contractor's expense.

TESTING REQUIREMENTS

307.10 Quality Control 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 106.4 - Quality Control and this Section. The Contractor shall not begin recycling operations until the Department approves the QCP in writing.

Prior to performing any recycling process, the Department and the Contractor shall hold a Pre-recycle conference to discuss the recycling schedule, type and amount of equipment to be used, sequence of operations, and traffic control. A copy of the QC random numbers to be used on the project shall be provided to the Resident. All field supervisors including the responsible onsite recycling process supervisor shall attend this meeting.

The QCP shall address any items that affect the quality of the Recycling Process including, but not limited to, the following:

- A. Sources for all materials, including New Aggregate and Additional Recycled Material.
- B. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers.
- C. Testing Plan.
- D. Recycling operations including recycling speed, methods to ensure that segregation is minimized, grading and compacting operations.
- E. Methods for protecting the finished product from damage and procedures for any necessary corrective action.
- F. Method of grade checks.
- G. Examples of Quality Control forms.
- H. Name, responsibilities, and qualifications of the Responsible onsite Recycling Supervisor experienced and knowledgeable with the process.
- I. A note that all testing will be done in accordance with AASHTO and MDOT/ACM procedures.

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 the full depth reclamation process in accordance with the following minimum frequencies:

MINIMUM QUALITY CONTROL FREQUENCIES

Test or Action	Frequency	Test Method
Density	1 per 1000 feet / lane	AASHTO T

		310
Air Temperature	4 per day at even intervals	
Surface Temperature	At the beginning and end of each days operation	
Yield of all materials (Daily yield, yield since last test, and total project yield.)	1 per 1000 ft/lane	

The Department may view any QC test and request a QC test at any time. The Contractor shall submit all QC test reports and summaries in writing, signed by the appropriate technician, to the Department’s onsite representative by 1:00 P.M. on the next working day, except when otherwise noted in the QCP due to local restrictions. The Contractor shall make all test results, including randomly sampled densities, available to the Department onsite.

The Contractor shall cease recycling operations whenever one of the following occurs:

- A. The Contractor fails to follow the approved QCP.
- B. The Contractor fails to achieve 98 percent density after corrective action has been taken.
- C. The finished product is visually defective, as determined by the Resident.
- D. The computed yield differs from the mix design by 10 percent or more.

Recycling operations shall not resume until the Department approves the corrective action to be taken.

307.101 Test Strip The contractor shall assemble all items of equipment for the recycling operation on the first day of the recycling work. The Contractor shall construct a test strip for the project at a location approved by the Resident. The Responsible onsite Recycling Supervisor will work with Department personnel to determine the suitability of the mixed material, moisture control within the mixed material, and compaction and surface finish. The test strip section is required to:

- A. Demonstrate that the equipment and processes can produce recycled layers to meet the requirements specified in these special provisions.
- B. Determine the effect on the gradation of the recycled material by varying the forward speed of the recycling machine and the rotation rate of the milling drum.
- C. Determine the optimum moisture necessary to achieve proper compaction of the recycled layer.
- D. Determine the sequence and manner of rolling necessary to obtain the compaction requirements and establish a target density. The Contractor and the Department will both conduct testing with their respective gauges at this time.

The test strip shall be at least 300 feet in length of a full lane-width (or a half-road width). Full recycling production will not start until a passing test strip has been accomplished. If a test strip fails to meet the requirements of this specification, the Contractor will be required to repair or replace the test strip to the satisfaction of the Resident. Any repairs, replacement, or duplication of the test strip will be at the Contractor’s expense.

After the test strip has been pulverized, and the roadway brought to proper shape, the Contractor shall add water until it is determined that optimum moisture has been obtained. The test strip shall then be rolled using the specified compaction equipment as directed until the density readings show an increase in dry density of less than 1 pcf for the final four roller passes of each roller. The Contractor and Department will each determine a target density using their respective gauges by performing several additional density tests and averaging them. The average of these tests will be used as the target density of the recycled material for QC and Acceptance purposes.

Following completion of the test strip, compaction of the material shall continue until a density of not less than 98 percent of the test strip target density has been achieved for the full width and depth of the layer. During the construction and compaction of the Full Depth Recycled base, should three consecutive Acceptance test results for density fail to meet a minimum of 95 percent of the target density, or exceed 102 percent of target density, a new test strip shall be constructed.

ACCEPTANCE TEST FREQUENCY

Property	Frequency	Test Method
In-place Density	1 per 2000 ft / lane	AASHTO T 310

308.102 Curing. No new pavement shall be placed on the full depth recycled pavement until curing has reduced the moisture content to 1 percent or less by total weight of the mixture, or a curing period of 4 days has elapsed, whichever comes first.

307.11 Method of Measurement Full Depth Recycled Pavement (Untreated or Treated with Emulsified Asphalt Stabilizer) will be measured by the square yard.

307.12 Basis of Payment The accepted quantity of Full Depth Recycled Asphalt Pavement (Untreated or Treated with Emulsified Asphalt Stabilizer) will be paid for at the contract unit price per square yard, complete in-place which price will be full compensation for furnishing all equipment, materials and labor for pulverizing, blending, placing, grading, compacting, and for all incidentals necessary to complete the work.

The addition of materials to restore profile grade and/or cross-slope in areas shown on the plans or described in the construction notes will be paid separately under designated pay items within the contract. No additional payment will be made for materials salvaged from the project.

Payments will be made under:

Pay Item

Pay Unit

307.331 Full Depth Recycled Pavement (Untreated) **Square**
Yard

307.332 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) **Square**
5 in. depth
Yard

307.333 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) **Square**
6 in. depth
Yard

SECTION 411
UNTREATED AGGRAGATE SURFACE COURSE

411.02 – Aggregate Add the following to the end of the first sentence: “- Type A”

SECTION 501
FOUNDATION PILES

501.05 – Method of Measurement

b. Piles Furnished – After the second sentence, add the sentence “**Measurement will not include any pile tips**”.

c. Piles in Place – Add the sentence to the end of the second paragraph, “**Measurement will include the pile tips**”.

d. Pile Tips – Add the words “**on the Pile**” to the end of the sentence.

SECTION 502
STRUCTURAL CONCRETE

502.05 Composition and Proportioning

Replace Table 1 with

TABLE 1

Concrete CLASS	Minimum Compressive Strength (PSI)	Permeability as indicated by Surface Resistivity (KOhm-cm)	Entrained Air (%)		Notes
			LSL	USL	
S	3,000	N/A	N/A	N/A	4,5
A	4,000	14	6.0	9.0	1,4,5
P	-----	-----	5.5	7.5	1,2,3,4
LP	5,000	17	6.0	9.0	1,4,5
Fill	3,000	N/A	6.0	9.0	4,5

In the list of information submitted by the contractor for a mix design:

Item J Replace “Target Coulomb Value.” with “Target KOhm-cm Value.”

Note #1 - Remove, “...Standard Specification Section 711.05, Protective Coating for Concrete Surfaces, and per the manufacturer’s recommendations, at no additional cost to the Department.” and replace with, “...Standard Specification Section 515, Protective Coating for Concrete Surfaces, at no additional cost to the Department.”

502.1703 Acceptance Methods A and B

In the paragraph that starts with “The Department will take Acceptance...” Remove the word chloride from chloride permeability in the last sentence.

Replace the paragraph starting with “Rapid Chloride Permeability specimens...” With the following:

“Surface Resistivity specimens will be tested by the Department in accordance with AASHTO TP-95 at an age ≥ 56 days. Four 4 inch x 8 inch cylinders will be cast per subplot placed. The average of three concrete specimens per subplot will constitute a test result and this average will be used to determine the permeability for pay adjustment computations.”

502.1706 Acceptance Method C

Remove in its entirety and Replace with:

502.1706 Acceptance Method C The Department will determine the acceptability of the concrete through Acceptance testing. Acceptance tests will include compressive strength, air content and permeability. Method C concrete with a failing permeability as indicated by the surface resistivity test may be tested for permeability in accordance with the Rapid Chloride Permeability Test AASHTO T-277 averaging the results from two specimens cut from the samples prepared for the surface resistivity test. Method C concrete not meeting the requirements listed in Table 1 or if the Rapid Chloride Permeability test results in values exceeding 2000 coulombs for Class LP or 2400 for Class A, shall be removed and replaced at no cost to the Department. At the

Department's sole discretion, material not meeting requirements may be left in place and paid for at a reduced price as described in Section 502.195.

502.1707 Resolution of Disputed Acceptance Test Results

Section B

Remove "Rapid Chloride" from the section heading.

In paragraph 4 replace T-277 with TP-95

502.192 Pay Adjustment for Chloride Permeability

Remove "Chloride" from the heading and from the first sentence.

Replace the sentence that starts with "values greater than..." and replace with "values less than 10 KOhms-cm for Class A concrete or 11 KOhms-cm for Class LP concrete shall be subject to rejection and replacement, at no additional cost to the Department."

502.194 Pay Adjustments for Compressive Strength, Chloride Permeability and Air Content, Methods A and B

Remove the word "Chloride" from the section heading and from the equation for CPF.

502.195 Pay Adjustment Method C

Table 6: Method C Pay Reductions (page 5-53)

Under "Entrained Air" for "Class Fill", in the first line, change from "< 4.0 (Removal)" to "< **4.5 (Removal)**"

In Table 6: Method C PAY REDUCTIONS remove the word 'Chloride' from 'Chloride Permeability'.

SECTION 504
STRUCTURAL STEEL

504.26 Welding Remove the second paragraph beginning with "The range of heat..." in its entirety.

504.29 Welding ASTM A 709 HPS 70W Steel. Remove the third paragraph beginning with "Make Weld runoff tabs..." in its entirety.

SECTION 604
MANHOLES, INLETS CATCH BASINS

604.04 Adjusting Catch Basins and Manholes,

Add the following paragraph to the end of 604.04 b:

The Department will allow the use of metal ring inserts set into the manhole top frame or composite risers placed beneath the manhole frame to adjust manhole slope and grade for paving projects. The use of metal ring inserts shall be in accordance with 604.04 d. Ring Insert Requirements. The use of composite risers shall be in accordance with 604.04 e. Composite Riser Requirements.

Add the following paragraph after the first paragraph of 604.04 c:

The Department will allow the use of metal ring inserts set into the manhole top frame or composite risers placed beneath the manhole frame to adjust manhole slope and grade for paving projects. The use of metal ring inserts shall be in accordance with 604.04 d. Ring Insert Requirements. The use of composite risers shall be in accordance with 604.04 e. Composite Riser Requirements.

Add the following sections to 604.04:

d. Ring Insert Requirements Ring inserts to adjust manhole top frame slope and grade will be allowed in accordance with the following requirements:

1) Materials

- i. All ring inserts must be made of iron. *Multiple ring inserts will not be allowed.* The single ring insert may be any height up to a maximum of 2 inches tall.
- ii. Ring inserts shall not be welded to the manhole frame to prevent brittle failure of the cast iron frame.
- iii. Ring inserts shall be fastened to the manhole frame using liquid steel-filled epoxy such as Loctite Fixmaster Steel Liquid or equivalent. The epoxy shall be installed in accordance with the manufacturer's recommendations.

2) Where Ring Inserts May/May Not Be Used

- i. MaineDOT will allow the use of a single manhole ring insert to raise manholes on state and state-aid highways.
- ii. *Manhole ring inserts may not be used along state and state-aid highway sections where the speed limit is 40 miles per hour or more.* The standard brick and mortar or flat composite risers beneath the manhole frame must be used at these locations.

3) Construction Requirements For The Use of Iron Manhole Ring Inserts

- i. **Wherever iron ring inserts are used to raise manhole top elevations, the rings shall be fastened to the existing manhole frame using liquid steel-filled epoxy. The liquid steel-filled epoxy shall be placed evenly around the entire manhole frame before placing the ring insert. *Unbonded ring inserts will not be allowed.* If the manufacturer's recommended construction practices result in loose or unacceptable manhole cover restraint, standard brick and mortar or flat composite risers beneath the manhole frame must be used at these locations.**

e. Composite Riser Requirements Flat or beveled, doughnut-shaped, composite risers placed beneath the manhole frame to adjust slope and grade are allowed. The composite riser shall be fastened to both the top of the concrete cone and bottom of the manhole frame with the manufacturer's recommended epoxy. Composite risers may be used at all locations on state and state-aid highways under any legal speed limit without restriction.

SECTION 619 **MULCH**

619.07 Basis of Payment

In the list of Pay Items add “**619.12 Mulch**” with a Pay Unit of “**Unit**”.

Change the description of 619.1201 from “Mulch” to “**Mulch – Plan Quantity**”

In the list of Pay Items add “**619.13 Bark Mulch**” with a Pay Unit of “**CY**”.

Change the description of 619.1301 from “Bark Mulch” to “**Mulch – Plan Quantity**”

In the list of Pay Items add “**619.14 Erosion Control Mix**” with a Pay Unit of “**CY**”.

Change the description of 619.1401 from “Erosion Control Mix” to “**Mulch – Plan Quantity**”

SECTION 621 **LANDSCAPING**

621.0002 Materials - General

In the list of items change “Organic Humus” to “**Humus**”.

621.0019 Plant Pits and Beds

c Class A Planting

In the third paragraph beginning with “The plant pit...” change “½ inch” to “**1 inch**”

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

626.034 Concrete Foundations

On Page 6-85, add the following paragraph before the paragraph beginning with “Drilled shafts shall not be...”.

No foundation design will be required for 18- and 24-inch diameter foundations for structures less than 30-feet tall and with no projecting arms. A foundation design prepared by a Professional Engineer licensed in accordance with the laws of the State of Maine will be required for all other foundations. Precast foundations will be permitted for 18 and 24-inch diameter foundations for structures less than 30-feet tall and with no projecting arms. Where precast foundations are permitted flowable concrete fill shall be used as backfill in the annular space, and placed from the bottom up. Construction of precast foundations shall conform to the Standard Details and all requirements of Section 712.061 except that the concrete shall have a minimum permeability of 17 kOhm-cm and the use of calcium nitrite will not be required.

On Page 6-86, add the following to the paragraph beginning with “Concrete for drilled shafts...” so that it reads as follows:

“...The Contractor shall provide temporary dewatering of excavations for foundations such that concrete is placed in the dry. **Concrete for drilled shafts shall be placed in accordance with Section 502.10 as temporary casing is withdrawn to prevent debris from contaminating the foundation and to ensure concrete is cast against the surrounding soil. Concrete for drilled shafts and spread footings shall be Class A in accordance with Section 502 - Structural Concrete. Precast foundations will not be permitted except as specified above in this Section. Backfill for spread footing foundations shall be Gravel Borrow meeting the requirements of Section 703.20 - Gravel Borrow.....**”

SECTION 627 **PAVEMENT MARKINGS**

627.10 Basis of Payment Remove the existing “627.78 Temporary Pavement Marking Line, White or Yellow” and replace with: **627.78 TEMP 4" PAINT PVMT MARK LINE W
OR Y LF**

SECTION 652
MAINTENANCE OF TRAFFIC

652.3 Submittal of Traffic Control Plan On page 6-148, note **f**, in the last sentence change the 105.2.2 to 105.2.3 so that the last sentence reads, “**For a related provision, see Section 105.2.3 – Project Specific Emergency Planning.**”.

652.4 Flaggers In the first paragraph, change the fifth sentence which says:

For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, shall be worn along with a hardhat with 360° retro-reflectivity.

So that it reads:

For nighttime conditions, Class 3 apparel, meeting ANSI 107-2004, including a Class 3 top (vest, shirt or jacket) and a Class E bottom (pants or coveralls), shall be worn along with a hardhat with 360 ° retro-reflectivity.

SECTION 656
TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL

656.5.2 If No Pay Item Add the following to the end of the first paragraph:

“Failure by the Contractor to follow Standard Specification or Special Provision - Section 656 will result in a violation letter and a reduction in payment as shown in the schedule list in 656.5.1. 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.”

SECTION 660
ON-THE-JOB TRAINING

660.06 Method of Measurement

Remove the first sentence in its entirety and replace with “ **The OJT item will be measured by the number of OJT hours by a trainee who has successfully completed an approved training program.**”

660.07 Basis of payment to the Contractor

Remove the last word in the first sentence so that the first sentence reads “ The OJT shall be paid for once successfully completed at the contract unit price per **hour.**”

Payment will be made under

Change the Pay Item from “660.22” to “**660.21**” and change the Pay Unit from “Each” to “**Hour**”.

SECTION 677

On page 6 - 203 change “636.041” to “677.041”

SECTION 703 **AGGREGATES**

703.0201 Alkali Silica Reactive Aggregates

Remove this section in its entirety and replace with the following:

703.0201 Alkali Silica Reactive Aggregates. All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by an accredited independent lab submitted to the Department. Aggregate submittals will be required on a 5-year cycle, unless the source or character of the aggregate in question has changed within 5 years from the last test date.

As per AASHTO T 303 (ASTM C 1260): Use of a particular coarse or fine aggregate will be allowed with no restrictions when the mortar bars made with this aggregate expand less than or equal to 0.10 percent at 30 days from casting. Use of a particular coarse or fine aggregate will be classified as potentially reactive when the mortar bars made with this aggregate expand greater than 0.10 percent at 30 days from casting. Use of this aggregate will only be allowed with the use of cement-pozzolan blends and/or chemical admixtures that result in mortar bar expansion of less than 0.10 percent at 30 days from casting as tested under ASTM C 1567.

Acceptable pozzolans and chemical admixtures that may be used when an aggregate is classified as potentially reactive include, but are not limited to the following:

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

Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302.

**Densified Silica Fume meeting the requirements of AASHTO M 307.
Lithium based admixtures
Metakaolin**

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

703.06 Aggregate for Base and Subbase - Remove the first two paragraphs in their entirety and replace with these:

“The following shall apply to Sections (a.) and (c.) below. The material shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0, the Washington State Degradation DOT Test Method T113, Method of Test for Determination of Degradation Value (January 2009 version) shall be performed, except that the test shall be performed on the portion of the sample that passes the ½ in sieve and is retained on the No. 10 sieve. If the material has a Washington Degradation value of less than 15, the material shall be rejected.

The material used in Section (b.) below shall have a Micro-Deval value of 25.0 or less as determined by AASHTO T 327. If the Micro-Deval value exceeds 25.0 the material may be used if it does not exceed 25 percent loss on AASHTO T 96, Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine. “

703.19 Granular Borrow

Remove the gradation requirements table, and replace with the following:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Material for Underwater Backfill	Material for Embankment Construction
6 inch	100	
No. 40	0-70	0-70
No. 200	0-7.0	0-20.0

703.33 Stone Ballast - In the third paragraph, remove the words “less than” before 2.60 and add the words “or greater” after 2.60.

SECTION 717
ROADSIDE IMPROVEMENT MATERIAL

717.02 Agricultural Ground Limestone

In the table after the third paragraph which starts with “Liquid lime...” change the Specification for Nitrogen (N) from “15.5 percent of which 1% is from ammoniac nitrogen and 14.5 /5 is from Nitrate Nitrogen” to read “**15.5 % of which 1% is from Ammoniacal Nitrogen and 14.5 % is from Nitrate Nitrogen**”

