

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 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 Placement of Plant Mixed Recycled Asphalt Pavement and Hot Mix Asphalt Overlay in the towns of Anson, Embden, and Solon" will be received from contractors at the Reception Desk, Maine DOT Building, Capitol Street, Augusta, Maine, until 11:00 o'clock A.M. (prevailing time) on May 25, 2016 and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must have completed, or successfully complete, a Highway Construction, Paving, or project specific prequalification 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: 022562.10, WIN 22562.10.

Location: In Somerset County, project is located on Route 201A beginning 0.46 of a mile north of Milk Street and extending northerly 7.22 miles to Route 201.

Outline of Work: Placement of Plant Mixed Recycled Asphalt Pavement and Hot Mix Asphalt Overlay 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 Scott Bickford 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.

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 Dixfield. 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.

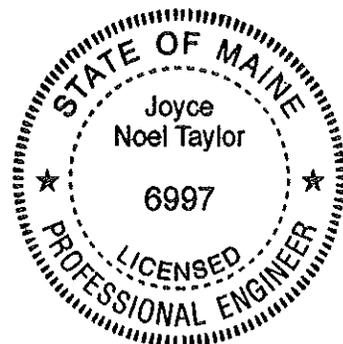
Each Bid must be made upon blank forms provided by the Department and must be accompanied by a bid bond at 5% of the bid amount or an official bank check, cashier's check, certified check, certificate of deposit, or United States postal money order in the amount of \$30,000 payable to Treasurer, State 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
May 4, 2016



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

JOYCE NOEL TAYLOR P. E.
CHIEF ENGINEER

**SPECIAL PROVISION 102.7.3
ACKNOWLEDGMENT OF BID AMENDMENTS**

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

Amendment Number	Date

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

CONTRACTOR

_____ Date

_____ Signature of authorized representative

_____ (Name and Title Printed)

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 022562.10

Project(s): 022562.10

SECTION: 1 HIGHWAY 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	202.203 PAVEMENT BUTT JOINTS	800.000 SY	_____	 _____	_____	 _____
0020	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	450.000 T	_____	 _____	_____	 _____
0030	403.2104 HOT MIX ASPHALT 9.5 MM - THIN LIFT SURFACE TREATMENT	5,200.000 T	_____	 _____	_____	 _____
0040	403.211 HOT MIX ASPHALT (SHIMMING)	5,200.000 T	_____	 _____	_____	 _____
0050	409.15 BITUMINOUS TACK COAT - APPLIED	15,700.000 G	_____	 _____	_____	 _____
0060	609.31 CURB TYPE 3	1,700.000 LF	_____	 _____	_____	 _____
0070	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	114,048.000 LF	_____	 _____	_____	 _____
0080	631.161 PAVING CREW	110.000 HR	_____	 _____	_____	 _____
0090	631.162 PAVING CREW (OVERTIME)	40.000 HR	_____	 _____	_____	 _____
0100	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	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 No. 22562.10 for the Placement of Plant Mixed Recycled Asphalt Pavement and Hot Mix Asphalt Overlay in the towns of Anson, Embden, and Solon, County of Somerset, 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 **October 14, 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 No. 22562.10 for the Placement of Plant Mixed Recycled Asphalt Pavement and Hot Mix Asphalt Overlay in the towns of Anson, Embden, and Solon, County of Somerset**, 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 No. 22562.10 for the Placement of Plant Mixed Recycled Asphalt Pavement and Hot Mix Asphalt Overlay in the towns of Anson, Embden, and Solon, County of Somerset, 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 **October 14, 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 No. 22562.10 for the Placement of Plant Mixed Recycled Asphalt Pavement and Hot Mix Asphalt Overlay in the towns of Anson, Embden, and Solon, County of Somerset**, 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, Revision of December 2002 and related Special Provisions.

C. Price.

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

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

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

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to Division 100 of the Standard Specifications Revision of December 2002 (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications, Revision of December 2002, Standard Details Revision of December 2002, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

PIN 1234.00 South Nowhere, Hot Mix Asphalt Overlay

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

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

As Offeror also agrees:

First: To do any extra work, not covered by the attached "Schedule of Items", which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

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

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications Revision of 2002 and complete the Work within the time limits given in the Special Provisions of this Contract.

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

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

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

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

Date

(Witness Sign Here)
Witness

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

(Print Name Here)
(Name and Title Printed)

CONTRACTOR

G. Award.

Your offer is hereby accepted.

This award consummates the Contract, and the documents referenced herein.

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

SURETY:

Signature.....

Print Name Legibly

SURETY ADDRESS:

NAME OF LOCAL AGENCY:

..... ADDRESS

TELEPHONE

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).]

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



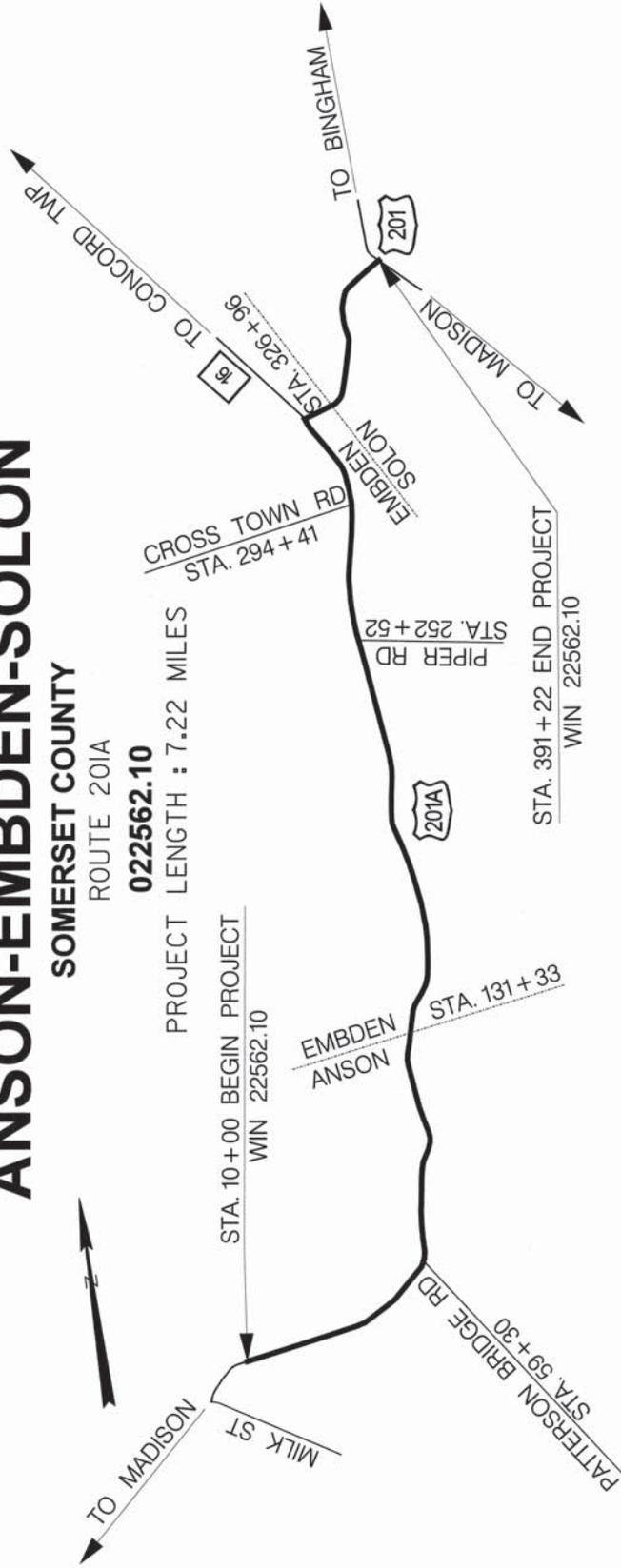
ANSON-EMBDEN-SOLON

SOMERSET COUNTY

ROUTE 201A

022562.10

PROJECT LENGTH : 7.22 MILES



TRAFFIC DATA

Current (2016) AADT	2070
Future (2028) AADT	2320
DHV - % of AADT	10%
Design Hour Volume	232
% Heavy Trucks (AADT)	10%
% Heavy Trucks (DHV)	6%
Directional Distribution (DHV)	51%
18 kip Equivalent F 2.0	182
18 kip Equivalent F 2.5	174
Design Speed (mph)	25-50
Right of Way	Major/Urban Collector
Corridor Priority	3

PROJECT LOCATION:	State pugmill with paved shoulders. Beginning 0.46 of a mile north of Milk Street and extending northerly 7.22 miles to Route 201
PROGRAM AREA:	Highway Program
SCOPE OF WORK:	PMRAP Laydown/Surface HMA

WIN 22562.10

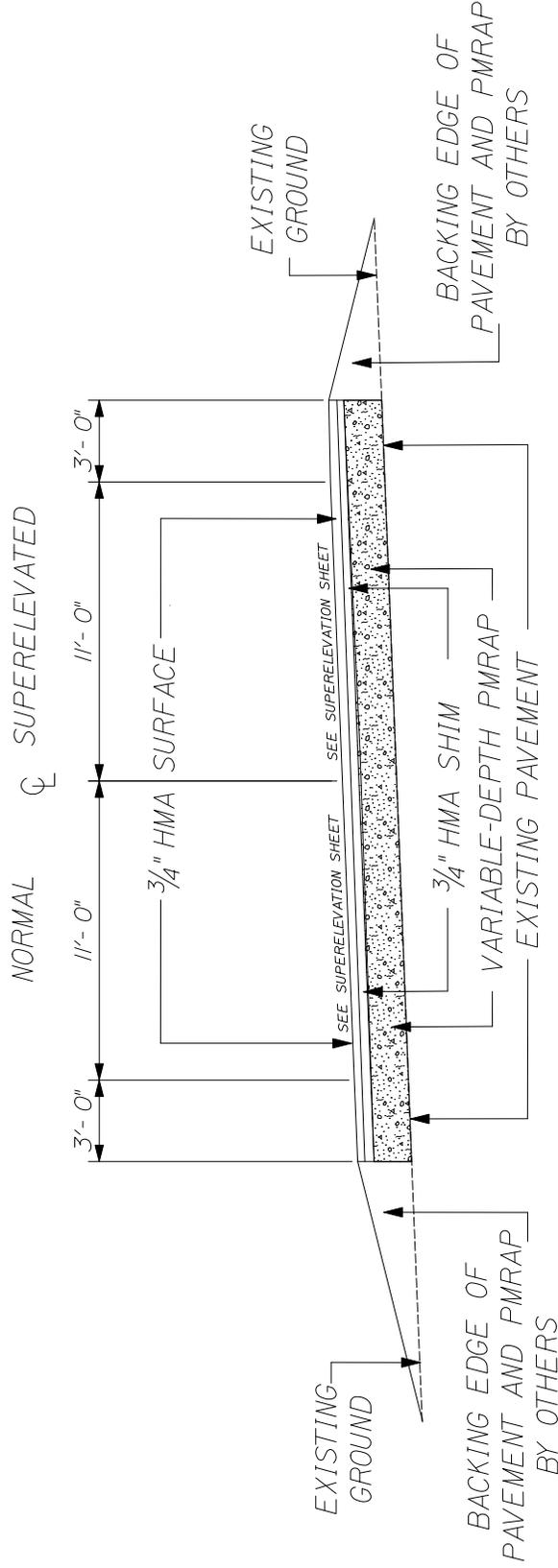
PROJECT INFORMATION	PROGRAM	ANSON-EMBDEN-SOLON	TITLE SHEET
PROJECT NUMBER	PROJECT MANAGER	022562.10	ROUTE 201A
PROJECT RESIDENT	DESIGNER	18052	STATE OF MAINE
CONTRACT	PROJECT MANAGER	18052	DEPARTMENT OF TRANSPORTATION
PROJECT COMPLETION DATE	DATE	2/2/2016	APPROVED
	DATE		COMMISSIONER
	DATE		CHIEF ENGINEER

SHEET NUMBER
1
OF 1

PLANT MIXED RECYCLED ASPHALT PAVEMENT
 $\frac{3}{4}$ " HOT MIX ASPHALT SHIM
 $\frac{3}{4}$ " HOT MIX ASPHALT SURFACE

NOTE:

1. THE PAVEMENT BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. SPOT SHIM MAY BE REQUIRED SO PMRAP WILL NOT EXCEED 4" IN DEPTH WHEN PLACED.



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	022562.10	MM 22562.10 HIGHWAY PLANS
--	-----------	---------------------------------

PROJ. NUMBER	QTY	WHITTINGTON	BY	DATE
CHECKED BY	SCOTT	COOK		
DESIGNED BY				
REVISIONS				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				
SIGNATURE	P.E. NUMBER	DATE		

ANSON-EMBDEN-SOLON
ROUTE 201A
TYPICAL SECTIONS

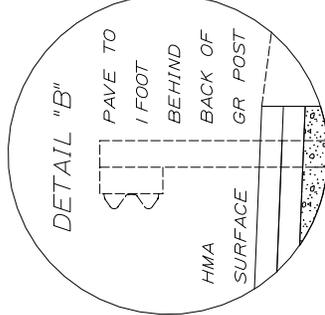
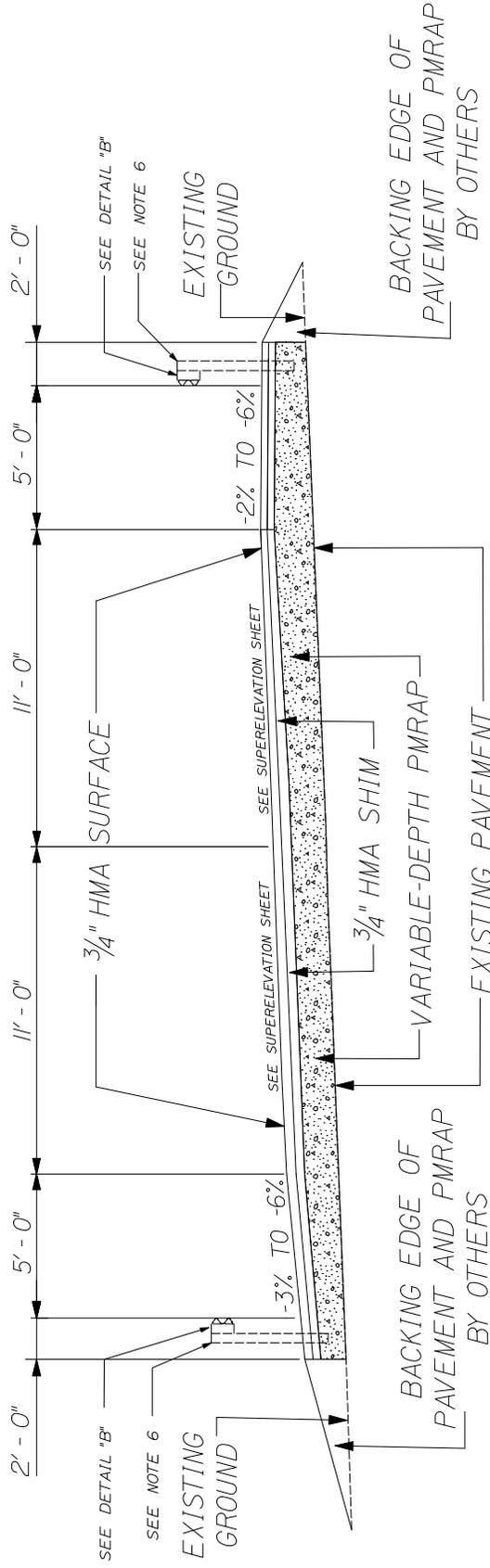
SHEET NUMBER
1
OF 3

NOTE:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
6. GUARDRAIL REMOVAL & INSTALLATION TO BE DONE BY OTHERS

PLANT MIXED RECYCLED ASPHALT PAVEMENT
 3/4" HOT MIX ASPHALT SHIM
 3/4" HOT MIX ASPHALT SURFACE

NORMAL ϕ SUPERELEVATED



- STA. 323+56 - 323+93.5 LEFT
- STA. 329+73 - 329+98 LEFT
- STA. 360+03 - 362+00 LEFT
- STA. 373+34 - 375+09 LEFT
- STA. 137+68 - 138+93 RIGHT
- STA. 322+81 - 323+93.5 RIGHT
- STA. 329+73 - 331+10.5 RIGHT

NOT TO SCALE

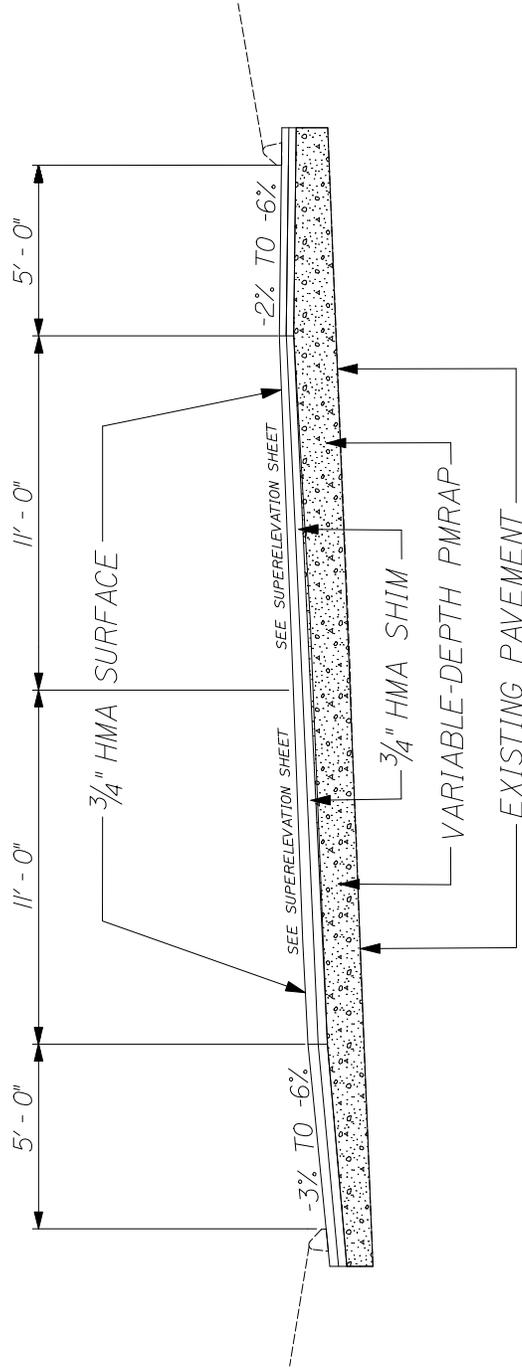
ANSON-EMBDEN-SOLON ROUTE 201A TYPICAL SECTIONS	SHEET NUMBER 2
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 022562.10 WMH 22562.10 HIGHWAY PLANS	OF 3

PLANT MIXED RECYCLED ASPHALT PAVEMENT
 3/4" HOT MIX ASPHALT SHIM
 3/4" HOT MIX ASPHALT SURFACE

NOTE:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.

NORMAL ☒ SUPERELEVATED



- | | | |
|---------------------------|----------------------------|----------------------------|
| STA. 55+75 - 59+10 LEFT | STA. 368+02 - 371+46 RIGHT | STA. 377+19 - 377+51 RIGHT |
| STA. 381+39 - 381+91 LEFT | STA. 372+05 - 373+60 RIGHT | STA. 377+74 - 379+71 RIGHT |
| STA. 382+35 - 382+75 LEFT | STA. 373+75 - 375+42 RIGHT | STA. 379+94 - 381+15 RIGHT |
| | STA. 375+72 - 377+06 RIGHT | |

NOT TO SCALE

DATE	
P.E. NUMBER	
SIGNATURE	

PROJECT STATIONING

<u>Left Side</u>	<u>Station</u>	<u>Right Side</u>
	99+64	CMP 73 ½ / 70
	94+42	CMP 72 / 68
CMP 70S / 66S	89+59	CMP 70 / 66
	84+48	CMP 67 / 63
	79+35	CMP 65 / 61
	74+02	CMP 63 / 58
CMP 469 / 285	69+00	CMP 61 / 56
	62+88	CMP 59
	59+30	Patterson Bridge Road
	56+50	CMP 57 / 52
CMP 55	50+89	
CMP 47 / 53	45+02	CMP 47S / J53
CMP 45	39+34	
CMP 43 / 49	33+15	
CMP 47 / 41	28+02	
CMP 38 / 45	22+97	
CMP 43	17+02	
Begin Project	10+00	Begin Project

PROJECT STATIONING

<u>Left Side</u>	<u>Station</u>	<u>Right Side</u>
CMP 122	188+21	
CMP 94 / 109	182+86	CMP 94 / 190 / 1
CMP 95 / 107	177+78	
Pattys Ln	174+15	
CMP 103	172+08	
CMP 101 / 100	166+74	CMP 101.1
	160+37	CMP 105 / 96
	155+28	CMP 107 / 94
	150+03	CMP 91
	142+31	CMP 88
	137+50	CMP 86
Embden/Anson town line	131+33	Kennebec River Road
	126+06	CMP 85 / 82
CMP 80S	121+36	CMP 83 / 80
	116+52	CMP 81 / 78
Weeks Drive	112+97	
	111+34	CMP 79 / 76
	104+75	CMP 76 / 73

PROJECT STATIONING

<u>Left Side</u>	<u>Station</u>	<u>Right Side</u>
CMP 60 / 15	282+44	
CMP 62 / 145	275+61	
CMP 64 / 142	269+69	
CMP 66 / 140	263+80	
CMP 68 / 138	257+66	
	252+52	Piper Road
CMP 70 / 135	250+44	
Station Road	245+09	
	241+89	Ravine Drive
CMP 73 / 132	240+89	
CMP 130 ½	235+56	
CMP 76 / 128	231+20	
CMP 78 / 127	224+72	
CMP 80 ½ / 124	218+23	
CMP 82 / 122	212+37	CMP 82S / 122S
CMP 84C / 119	206+78	CMP 119S
CMP 117	200+02	
CMP 88 / 115	194+57	

PROJECT STATIONING

<u>Left Side</u>	<u>Station</u>	<u>Right Side</u>
	365+63	CMP 18 / 13
	359+17	CMP 151.1 / 16-1
	353+08	CMP 12 / 19
	347+11	CMP 10 / 22
CMP 6 / 26	339+86	
	336+74	CMP 4 / 28
	331+71	CMP 3 / 30 STC
	329+73	
Solon/Embden town line	326+96	Bridge Concrete Deck
	324+50	
Route 16	324+00	
CMP 48 / 2	319+09	
CMP 51 / 5 ½	311+18	
CMP 52 / 7	306+10	
CMP 54 / 9	300+74	
CMP 56 / 11	294+62	
Cross Town Road	294+41	
CMP 58 / 13	288+52	

PROJECT STATIONING

<u>Left Side</u>	<u>Station</u>	<u>Right Side</u>
End Project	391+22	End Project
	381+43	CMP 29
	377+77	Dube Lane
	376+22	CMP 25
CMP 21 / 10	370+63	

CONSTRUCTION NOTES

ITEM #202.203 PAVEMENT BUTT JOINTS

<u>Description</u>	<u>Station</u>
Begin Project	10+00
End Project	391+21

<u>Description</u>	<u>Quantity</u>
Side roads	9
Drives	39
Bridge joint	2

ITEM #609.31 Curb Type 3

<u>Station</u>	to	<u>Station</u>	<u>Offset</u>	<u>Station</u>	to	<u>Station</u>	<u>Offset</u>
55+75		58+50	LT	368+02		371+46	RT
304+60		305+50	LT	372+05		373+60	RT
377+86		379+05	LT	373+75		375+42	RT
379+24		379+60	LT	375+80		377+00	RT
381+39		381+91	LT	377+18		377+45	RT
				377+75		379+00	RT
				379+09		379+62	RT
				379+86		380+33	RT
				380+35		381+02	RT

ITEM #627.78 TEMPORARY PAVEMENT MARKING LINE WHITE OR YELLOW

Temporary center lines shall be painted on all matched pavement within one (1) week.
Temporary edge lines shall be painted on all pavement layers within four (4) weeks.
All temporary lines shall be painted prior to final striping.
Only painted temporary lines will be paid under this item.

ITEM #631.161 PAVING CREW

This item is to be used for the placement of PMRAP in accordance with Special Provision 631

ITEM #631.162 PAVING CREW (OVERTIME)

This item is to be used for the placement of PMRAP in accordance with Special Provision 631

SLOPE WORKSHEET

Left Slope %	Station	Right Slope %	Left Slope %	Station	Right Slope %	Left Slope %	Station	Right Slope %
-3.0	48+00	-3.0	-3.0	92+50	-3.0	4.5	137+00	-5.0
-4.0	47+50	-2.0				3.0	136+50	-3.0
-4.0	47+00	-0.5	-3.0	90+50	-3.0	1.5	136+00	-3.0
-4.0	46+50	1.0	-2.0	90+00	-3.0	0.0	135+50	-3.0
-4.0	46+00	2.5	-0.5	89+50	-4.0	-1.5	135+00	-3.0
-4.0	45+50	4.0	1.0	89+00	-4.0	-3.0	134+50	-3.0
-4.0	44+50	4.0	1.0	86+50	-4.0	-3.0	125+00	-3.0
-4.0	44+00	2.5	1.0	86+00	-3.0	-2.0	124+50	-3.0
-4.0	43+50	1.0	-0.5	85+50	-3.0	-0.5	124+00	-3.5
-4.0	43+00	-0.5	-2.0	85+00	-3.0	1.5	123+50	-5.0
-3.0	42+50	-2.0	-3.0	84+50	-3.0	3.0	123+00	-5.0
-3.0	42+00	-3.0						
			-3.0	71+00	-3.0	3.0	121+50	-5.0
-3.0	36+00	-3.0	-1.5	70+50	-3.0	1.5	121+00	-4.0
-3.0	35+50	-2.5				0.0	120+50	-3.0
-3.0	35+00	-1.0	-1.5	65+00	-3.0	-1.5	120+00	-3.0
-3.0	34+50	0.5	-3.0	64+50	-3.0	-3.0	119+50	-3.0
-5.0	34+00	2.0	-3.0	64+00	-2.0			
-6.0	33+50	3.5	-3.0	63+50	-0.5	-3.0	100+00	-3.0
-6.0	33+00	5.0	-3.0	63+00	1.0	-3.0	99+50	-1.5
-6.0	32+50	6.0	-4.5	62+50	2.5	-4.0	99+00	0.0
			-6.0	62+00	4.0	-5.0	98+50	1.5
-6.0	31+50	6.0				-6.0	98+00	3.0
-5.0	31+00	4.5	-6.0	58+50	4.0	-6.0	97+50	4.5
-4.0	30+50	3.0	-5.0	58+00	3.0	-6.0	97+00	6.0
-3.0	30+00	1.5	-4.0	57+50	2.0			
-3.0	29+50	0.0				-6.0	95+50	6.0
-3.0	29+00	-1.5	-4.0	56+00	2.0	-6.0	95+00	4.5
-3.0	28+50	-3.0	-4.0	55+50	1.0	-5.0	94+50	3.0
			-4.0	55+00	-0.5	-4.0	94+00	1.5
-3.0	10+50	-3.0	-4.0	54+50	-1.5	-3.0	93+50	0.0
Match	10+00	Match	-3.0	54+00	-3.0	-3.0	93+00	-1.5

SLOPE WORKSHEET

Left Slope %	Station	Right Slope %	Left Slope %	Station	Right Slope %	Left Slope %	Station	Right Slope %
-5.0	182+00	0.0						
-5.0	181+50	-1.0	-5.0	214+50	2.0	-3.0	308+00	-3.0
-5.0	181+00	-2.0	-5.0	214+00	1.0	-4.0	307+50	-2.0
-4.0	180+50	-3.0				-4.0	307+00	-0.5
-3.0	180+00	-3.0	-5.0	210+50	1.0	-4.0	306+50	1.0
			-5.0	210+00	0.0	-5.0	306+00	2.5
-3.0	157+00	-3.0	-5.0	209+50	-1.0	-6.0	305+50	4.0
-3.0	156+50	-4.0	-4.0	209+00	-2.0			
			-3.0	208+50	-3.0	-6.0	304+50	4.0
-3.0	155+00	-4.0				-6.0	304+00	2.5
-3.0	154+50	-3.0	-3.0	200+00	-3.0	-6.0	303+50	1.0
			-1.5	199+50	-4.0	-5.0	303+00	-0.5
-3.0	151+50	-3.0	0.0	199+00	-5.0	-4.0	302+50	-2.0
-3.0	151+00	-2.0	1.5	198+50	-6.0	-3.0	302+00	-3.0
-4.0	150+50	-0.5	3.0	198+00	-6.0			
-4.0	150+00	1.0	4.5	197+50	-6.0	-3.0	260+00	-3.0
-5.0	149+50	2.5	6.0	197+00	-6.0	-2.5	259+50	-3.0
-6.0	149+00	4.0				-1.0	259+00	-3.5
-6.0	148+50	4.5	6.0	196+00	-6.0	0.5	258+50	-5.0
			4.5	195+50	-6.0	2.0	258+00	-6.0
-6.0	144+50	4.5	3.0	195+00	-5.0			
-6.0	144+00	3.0	1.5	194+50	-4.0	2.0	256+50	-6.0
-5.0	143+50	1.5	0.0	194+00	-4.0	1.0	256+00	-5.0
-4.0	143+00	0.0	-1.5	193+50	-4.0	1.0	255+50	-4.0
-3.0	142+50	-1.5	-3.0	193+00	-3.0	0.0	255+00	-3.0
-1.5	142+00	-3.0				-1.5	254+50	-3.0
0.0	141+50	-4.0	-3.0	186+00	-3.0	-3.0	254+00	-3.0
1.5	141+00	-5.0	-4.0	185+50	-2.0			
3.0	140+50	-6.0	-4.0	185+00	-1.0	-3.0	218+00	-3.0
4.5	140+00	-6.0	-5.0	184+50	0.0	-4.0	217+50	-2.0
6.0	139+50	-6.0	-5.0	184+00	1.0	-4.0	217+00	-1.0
						-4.0	216+50	0.5
6.0	137+50	-6.0	-5.0	182+50	1.0	-5.0	216+00	2.0

SLOPE WORKSHEET

Left Slope %	Station	Right Slope %	Left Slope %	Station	Right Slope %	Left Slope %	Station	Right Slope %
-6.0	338+00	4.5	4.5	362+00	-6.0	-3.0	391+22	-3.0
-6.0	337+50	6.0	3.0	361+50	-6.0			
			1.5	361+00	-5.0	-3.0	374+50	-3.0
-6.0	334+00	6.0	0.0	360+50	-4.0	-3.0	374+00	-4.0
-6.0	333+50	4.5	-1.5	360+00	-3.0	-1.5	373+50	-5.0
-6.0	333+00	3.0	-3.0	359+50	-3.0	0.0	373+00	-6.0
-5.0	332+50	1.5				1.5	372+50	-6.0
-4.0	332+00	0.0	-3.0	358+50	-3.0	3.0	372+00	-6.0
-3.0	331+50	-1.5	-3.0	358+00	-2.5	4.5	371+50	-6.0
-3.0	331+00	-3.0	-3.0	357+50	-1.0	6.0	371+00	-6.0
-2.0	330+50	-3.0	-3.0	357+00	0.5			
			-4.0	356+50	2.0	6.0	362+50	-6.0
-2.0	329+50	-3.0	-5.0	356+00	3.5			
-2.0	329+00	-2.0	-6.0	355+50	5.0			
-2.0	325+00	-2.0	-6.0	354+00	5.0			
-0.5	324+50	-2.5	-6.0	353+50	4.0			
1.5	324+00	-3.0	-6.0	353+00	3.0			
3.0	323+50	-4.0	-6.0	352+50	2.0			
			-6.0	352+00	2.0			
3.0	321+50	-4.0	-6.0	351+50	1.0			
2.0	321+00	-4.0	-6.0	351+00	0.0			
0.5	320+50	-4.0	-5.0	350+50	-1.0			
-1.0	320+00	-3.0	-4.0	350+00	-2.0			
-2.0	319+50	-3.0	-4.0	349+50	-3.0			
-3.0	319+00	-3.0	-3.0	349+00	-3.0			
-3.0	315+50	-3.0	-3.0	340+50	-3.0			
-1.5	315+00	-3.0	-3.0	340+00	-1.5			
			-4.0	339+50	0.0			
-1.5	309+50	-3.0	-5.0	339+00	1.5			
-3.0	309+00	-3.0	-6.0	338+50	3.0			

GENERAL NOTES

1. All joints between existing and proposed hot bituminous pavement shall be butted. Payment shall be made under Item 202.203 Pavement Butt Joint.
2. Construct butt joints at all paved drives and entrances
3. Stations referenced are approximate.
4. The Department shall provide all traffic control including signs and flaggers for all operations.
5. The Contractor shall be limited to two closures at any one time.
6. The Department shall produce the entire PMRAP product.
7. PMRAP will be produced at the Skowhegan fleet garage off of Route 201.
8. The Department shall truck/haul all PMRAP material.
9. PMRAP shall be allowed to cure for a minimum of five (5) calendar days prior to the placement of Hot Mix Asphalt.
10. The Department shall be responsible for backing up all PMRAP and pavement on the shoulders and gravel driveways.
11. The Department shall place and remove all TOMS.
12. A temporary ramp shall be constructed with HMA at the ends of the roadway section paved each day. The use of millings or PMRAP will not allowed.
13. The Contractor shall be responsible for temporary striping the surface pavement only.
14. The Department shall be responsible for final striping.
15. **The Contractor shall truck/haul all Hot Mix Asphalt.**
16. Backing up bituminous curb is incidental to the curb items. In areas where new bituminous curb is designated to replace existing, the removal of the old bituminous curb shall be incidental to the new curb. Loam placed in lawn areas to be done by others.

SPECIAL PROVISIONS
SECTION 104
UTILITIES

UTILITY COORDINATION

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

THE CONTRACTOR SHALL PLAN AND CONDUCT WORK ACCORDINGLY.

MEETING

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

GENERAL INFORMATION

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

Utility	Aerial	Underground
Central Maine Power Company Scott Raymond 564-8539	X	
Time Warner Cable Nils Bryant 458-8079	X	
Fairpoint Communications Marty Pease 797-1119	X	
Somerset Tel(TDS) Reggie Palmer 944-3621	X	X
Anson & Madison Water District Michael Corson 696-4221		X
Solon Water District Michael Foster 643-2473		X

AERIAL

There may be project construction activities which will occur beneath or around existing aerial conductors. The contractor shall conduct their work accordingly should the Contractor have question about line voltage they need to contact Central Maine Power.

SUBSURFACE

Solon Water District (SWD)

SWD has a drinking water system located within the limits of the project. As a result of this Project **SWD** have **4 valve boxes** to be adjusted on the project. **SWD** needs **5 working days** to raise the **valve boxes** to grade prior to surface paving.

Anson-Madison Water District (AMWD)

AMWD has a drinking water system located within the limits of the project. No conflict is anticipated with this system.

Somerset Tel (TDS) has communication lines buried along the Project. No conflict is anticipated with these lines.

The contractor shall notify **all utilities 4 weeks** prior to commencement of **any** work on the project.

BUY AMERICA

Utility construction work performed as part this federal-aid project is subject to the requirements of Buy America in accordance with Federal Regulation 23 CFR 635.410 Section 1518. Specific requirements are presented in Maine DOT Standard Specification Section 100, Appendix A, Section 3.A., Buy America.

MAINTAINING UTILITY LOCATION MARKINGS

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

UTILITY SIGNING

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

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

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

Wage Determination - In accordance with 26 MRS §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 -----22562.10-Anson-Embden-Solon, Route 201A, PMRAP Laydown-Surface HMA

Location of Project --Anson-Embden-Solon, Somerset County

**2016 Fair Minimum Wage Rates
 Highway & Earthwork Somerset 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	\$14.50	\$0.00	\$14.50	Ironworker – Structural	\$23.20	\$6.20	\$29.40
Backhoe Loader Operator	\$16.11	\$1.17	\$17.28	Laborers (Incl. Helpers & Tenders)	\$13.00	\$0.10	\$13.10
Blaster Ordinance Handling & Explosives	\$19.75	\$2.02	\$21.77	Laborer – Skilled	\$16.00	\$1.59	\$17.59
Boom Truck (Truck Crane) Operator	\$21.00	\$2.85	\$23.85	Line Erector – Power/Cable Splicer	\$25.88	\$5.88	\$31.76
Bulldozer Operator	\$17.00	\$3.24	\$20.24	Loader Operator – Front End	\$17.25	\$2.12	\$19.37
Carpenter	\$20.00	\$1.63	\$21.63	Mechanic – Maintenance	\$17.00	\$1.10	\$18.10
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	\$16.18	\$2.36	\$18.54
Concrete Pump Operator	\$20.00	\$0.00	\$20.00	Paver Operator	\$21.00	\$5.42	\$26.42
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	\$21.00	\$11.34	\$32.34
Earth Auger Operator	\$23.00	\$0.00	\$23.00	Screed/Wheelman	\$15.00	\$0.11	\$15.11
Electrician – Licensed	\$26.00	\$13.87	\$39.87	Sider	\$23.00	\$1.77	\$24.77
Excavator Operator	\$18.00	\$0.92	\$18.92	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	\$10.00	\$0.00	\$10.00	Truck Driver – Medium	\$15.00	\$0.00	\$15.00
Grader/Scraper Operator	\$17.50	\$1.04	\$18.54	Truck Driver – Heavy	\$14.14	\$0.61	\$14.75
Highway Worker/Guardrail Installer	\$14.25	\$1.30	\$15.55	Truck Driver – Tractor Trailer	\$15.00	\$1.23	\$16.23
Hot Top Plant Operator	\$23.60	\$8.80	\$32.40	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 MRS §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-080-2016
 Filing Date: April 19, 2016
 Expiration Date: 12-31-2016

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

BLS 424B2 (R2016)(Highway/Earthwork Somerset)

SPECIAL PROVISION
SECTION 105
General Scope of Work
(Limitations of Operations)

1. Daily operating hours for PMRAP placement shall be determined by MaineDOT. A typical full production day can range from 10 to 16 hours. See section 631.07 for explanation of overtime pay.
2. Hourly payment shall begin 15 minutes prior to commencement of placement (placement time will be determined the previous day). No payment will be made if placement does not commence due to inclement weather unless the Department authorizes the Contractor to stand by.
3. HMA paving shall commence after the required (5) day curing period for the PMRAP and shall be continuous until completed unless otherwise agreed upon by MaineDOT.
4. The Contractor shall not be allowed to work Saturdays placing PMRAP. The Contractor may work Saturday placing Hot Mix Asphalt if they provide flagging and traffic control at their expense, the Resident is notified a minimum of 48 hours prior and the Contractor's traffic control plan has been approved by the Department.
5. MaineDOT and the Contractor shall hold a coordination meeting a minimum of 7 calendar days prior to beginning work. Tentative date for Pugmill to be on site and ready to go is August 8, 2016.
6. The Contractor shall stop all work and have all lanes open to traffic on Friday, September 2, 2016 at 12:00 P.M. and shall not commence work again until September 6.

Project No.: 022562.10

SPECIAL PROVISION 105
CONSTRUCTION AREA

A Construction Area located in the **Towns of Anson, Embden and Solon** has been established by the Maine Department of Transportation (MDOT) in accordance with provisions of 29-A § 2382 Maine Revised Statutes Annotated (MRSA).

- (a) The section of highway under construction in Somerset County, Project No. 022562.10 is located on Route 201A, beginning 0.46 mi. north of Milk Street in Anson and extending northerly 7.22 miles to Route 201 in Solon.

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

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

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

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

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

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

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

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

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

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

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

SPECIAL PROVISION
SECTION 107
SCHEDULING OF WORK

Replace Section 107.4.2 with the following:

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

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

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

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

SPECIAL PROVISION
SECTION 107
Time
(Contract Time)

1. The Contract shall be complete within **68** continuous calendar days. The anticipated start date is August 8, 2016. The contractor will be notified at least 14 calendar days in advance of the actual start date. Failure to begin work on the specified date will result in Supplemental Liquidated Damages of \$2,500/day. The Contract Completion Date will be no later than **October 14, 2016.**
2. At least 21 calendar days prior to the desired Begin Construction Date, the Contractor shall submit an **electronic copy of their signed request to begin work and the Begin Construction Date.** This signed request shall be sent read receipt through **email** with their **Schedule of Work**, in accordance with Standard Specification 107.4.2, to Shawn.Smith@maine.gov, Emory.Lovely@maine.gov and Scott.Bickford@maine.gov. The Contractor shall notify utility contacts listed in the 104 Special Provision and provide utility contacts the submitted schedule of work within 2 calendar days of the schedule of work submittal.
3. Once operations commence, for every weekday not worked the Contractor will be charged supplemental liquidated damages per Section 107.7.2 of the Standard Specifications; excluding days lost to inclement weather, holidays, and approved absences.
4. Absences must be requested at least 72 hours in advance and are subject to Department approval based on existing roadway condition, paving deadlines, adherence to schedule, traffic restrictions, detours, etc. The Contractor must assure that the roadway surface and signage are maintained for safe passage of the traveling public during any approved absences. The Contract Completion Date will not be modified due to approved absences.

SPECIAL PROVISION
SECTION 310
PLANT MIXED RECYCLED ASPHALT PAVEMENT

310.01 Description This work shall consist of the Processing (screening, crushing, sizing, and stockpiling) of Department supplied recycled asphalt pavement (RAP), as well as the mixing of the processed materials with the required additives in an approved cold mix plant, and the successful placement of the processed materials in the locations identified in the contract per Section 310.020.

All plant mixed recycled asphalt pavement (PMRAP) shall be placed with a paver as described within this specification in subsection 310.032. All PMAP shall be placed in one or more courses on an approved base, and in accordance with these specifications. It shall be placed in reasonably close conformity with the lines, grades and thicknesses indicated on the plans and specifications, or as established by the Resident. Excess untreated recycled asphalt pavement materials not used in the pugmill process will remain as the property and responsibility of the Department. Excess treated PMRAP not placed in the actual roadway sections identified in the contract will remain the property and responsibility of the Department unless agreements are made otherwise.

MATERIALS

310.020 Composition of Mixture The PMRAP mixture shall be composed as directed in the job mix formula (JMF). The actual JMF additive proportions will be established by executing a mix design using recycled material samples once the recycled asphalt stockpiles have been constructed.

A JMF shall be furnished by the Department establishing the percentage of emulsified asphalt cement, Portland cement, aggregate, and water to be used in the mixture. Emulsion, water, aggregate and Portland cement shall be added in percentage by weight and verified by tank checks done in accordance with the minimum testing and monitoring frequencies. Portland cement additive may be done in dry form or introduced as a cement slurry.

310.041 Recycled Asphalt Pavement Materials All recycled asphalt materials shall be sourced from Department supplied piles, unless otherwise specified in the contract. All materials shall be processed to pass a $\frac{3}{4}$ inch, [19.0mm] square sieve, and stockpiled as to minimize segregation. The stockpile shall be free of any materials not generally considered to be asphalt pavement, or bituminous treated material.

If additional material is required, the material will be supplied by the Department or acquired from the contracted sources through the Contract Modification process. Materials from offsite sources shall be processed so that all materials will be no larger than $\frac{3}{4}$ inch [19.0mm] and stockpiled so as to minimize segregation.

310.021 Emulsified Asphalt The emulsified asphalt materials shall be sourced from a supplier contracted by the Department. The emulsified asphalt shall be grade MS-2, MS-4, or SS-1 as determined by the Department and meeting the requirements of Section 702.04 - Emulsified Asphalt. It shall be the Pugmill Manager's responsibility to coordinate the emulsion delivery with the emulsion supplier.

The Pugmill Manager shall provide the emulsion supplier 72 hours prior notice of their intent to start the PMRAP processing portion of contract. Once PMRAP processing has begun, a 12 hour notice must be provided to the emulsion supplier for changed in material delivery. A delivery slip and lab certificate will be obtained from each load of emulsified asphalt. Each load shall be recorded in the Pugmill Operators' production logbook, and load documents delivered to the Pugmill Manager on a daily basis.

310.022 Portland Cement Portland Cement shall be Type I or II meeting the requirements of AASHTO M85. A delivery slip and lab certificate will be obtained from each load. Each load shall be recorded in the Pugmill Operators' production logbook, and load documents delivered to the Pugmill Manager on a daily basis.

310.023 Water Water shall be clean and free from deleterious concentrations of acids, alkalis, salts or other organic or chemical substances. Each load used, as well as the percentage of water added to the mixture, shall be recorded in the Pugmill Operators production logbook daily. Should adjustments to the percent water used be made during the day, those adjustments should be recorded in the production logbook as well.

EQUIPMENT

310.030 Mixing Plant The Department will provide the mixing plant.

The mixing plant shall be equipped with belt scales to accurately proportion the additives by mass, adjusted by moisture content of the processed recycled asphalt pavement stockpile. The belt scale will be checked for calibration at each new location prior to mix production, and shall be checked for accuracy weekly, or as often as required to maintain proper material percentages. The belt scale calibration shall be verified daily prior to mixing. Each scale check and adjustment made to accurately measure material production shall be recorded in the Pugmill Operators' production logbook.

The cement hopper, silo feed, or other cement introduction systems shall be readily adjusted to meet the percentages required by the JMF. Mathematical yield calculations will be required daily to ensure the setup provides the target cement percentage. Adjustments the feed setup will be required if actual cement usage deviates from the desired percentage. The plant shall be operated at a production rate so as to provide a uniform, well-mixed product. Adjustments made to maintain additive percentages shall be recorded in the Pugmill Operators production logbook.

All yield calculations for emulsion, cement and water will be recorded in a in a daily production logbook to be maintained by the Pugmill Operator, and presented to the Pugmill Manager upon request.

310.031 Hauling Equipment Hired trucks, if utilized, hauling the mixture shall meet the requirements of Division 400 - subsection 401.08.

310.032 Bituminous Pavers Pavers shall meet the requirements of Special Provision 631, and Division 400 - subsection 401.09.

310.033 Rollers Rollers shall meet the requirements of Special Provision 631, and Division 400 - subsection 401.10. As a minimum, a 10 ton dual drum vibratory or oscillatory roller, 16 ton pneumatic roller, and 10 ton final roller will be required. The sequence of rollers, and number of passes will be as determined during the control strip.

CONSTRUCTION REQUIREMENTS

310.040 Weather Limitations PMRAP production and placement shall be performed under the following conditions:

- a. PMRAP placement 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. PM-RAP will be allowed between May 1st and September 30th inclusive in Zone 2 - Areas south of Zone 1 including the US Route 2 and Route 9 boundaries.
- b. When the atmospheric temperature, as determined by an approved thermometer placed in the shade at the placement location, is 50⁰F and rising.
- c. When there is no standing water on the surface to be paved.
- d. During generally dry conditions, or when weather conditions are such that proper mixing, 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 40⁰F.

310.042 Preparation of Existing Pavement Surface - The Department will prepare the existing roadway by the means of sweeping and grading as required. All existing pavement will receive an asphalt tack coat before placing PMRAP. Placement of the PMRAP material will not be allowed on wet pavement surfaces, unless otherwise authorized by the Department.

310.043 Material Mixing Mixing shall be allowed if weather conditions permit, and when the temperature is not less than 50°F. The emulsified asphalt shall meet the mixing temperature requirements listed in Section 702.05 - Application Temperatures. Recycled bituminous materials, emulsified asphalt, water, and Portland cement shall be properly proportioned according to the JMF, and the mixing time shall be set to produce a mixture in which uniform distribution of the emulsified asphalt and coating of the recycled pavement is obtained. The plant shall be operated at a production rate so as to provide a uniform, well-mixed product.

Moisture content of the stockpiled recycled materials shall be checked daily prior to mixing, and at least once during each day of production to determine adjustments to the belt scale totals, and to determine if increased or decreased water percentages are required. Moisture test results will be recorded in a daily production logbook.

Following mixing, the PMRAP material shall be stockpiled and incorporated into the work. The PMRAP must be stockpiled prior to use, but not for longer than 24 hours.

310.044 Spreading and Finishing The PMRAP mixture shall be spread and finished in accordance with Division 400 - Section 401.15. Areas requiring the placement of PMRAP in excess of 4 inches total depth shall be paved in multiple layers. Each layer placed will not exceed 4 inches. Extended cure times may be required for such areas.

310.045 Compaction Compaction of the mixture shall be in accordance with Section 401.16. The processed material shall be compacted to a minimum density of 96% of the target density as determined in the control section. See also Section 310.051.

310.046 Joints Joints shall be constructed in accordance with Division 400 - section 401.17.

310.047 Surface Tolerances The surface tolerances shall be as specified in Division 400 - section 401.101, except that the maximum allowable variation shall be ½ inch.

310.048 Repairs Delaminations, potholes, or low areas will be repaired using a hot mix asphalt shim course. High areas will require PMRAP removal. Any repair work required as a result of workmanship, equipment malfunction or failure will be at the Contractor's expense.

TESTING REQUIREMENTS

310.050 Testing and Monitoring Plan The Pugmill Operator shall operate the plant in accordance with this document or as directed by the Pugmill Manager.

Prior to beginning the PMRAP mixing process, the Department shall hold a pre-recycle conference to discuss the recycling schedule, type and amount of equipment to be used, sequence of operations, traffic control, and the Contractor's responsibilities. All supervisors including the responsible trucking and traffic control supervisors shall attend this meeting.

The meeting agenda and discussion shall address any items that affect the quality of the recycling process including, but not limited to, the following:

- a. Methods to adhere JMF(s).
- b. Mixing details, pugmill type, production rates, material processing.
- c. Make and type of paver(s).
- d. Make and type of rollers including weight, weight per inch of steel wheels, and average contact pressure for pneumatic tired rollers.
- e. Methods of monitoring moisture contents of stockpiles, emulsion and other additive control, and compaction efforts.
- f. Transportation, including process for ensuring that truck bodies are clean and free of debris or contamination that could adversely affect the finished product, type of release agent used (if required)
- g. Laydown operations, including procedures for mix design modification, avoiding recycling and curing in inclement weather, material yield monitoring, methods to ensure that segregation is minimized, longitudinal joint construction, procedures to

- determine the maximum rolling and placing speeds based on field quality control, and achieving the best possible smoothness.
- h. Methods for protecting the finished product from damage and procedures for any necessary corrective action.
- j. Examples of TMP and logbook forms.
- k. Method for calibration/verification of density gauge.
- l. Stockpile procedures including method of moisture monitoring.

The Contractors paving superintendent shall be in attendance, the onsite paving crews roles, responsibilities and communication process determined.

The Pugmill Operator shall coordinate the sampling and testing in accordance with the following procedures and minimum frequencies:

MINIMUM TMP FREQUENCIES

Test or Action	Frequency	Test Method
Density	1 per 1000 ft / lane	ASTM D 2950
Air Temperature	4 per day at even intervals	
Surface Temperature	At the beginning and end of each days operation	
Yield of all materials (Both the daily yield and yield since last test)	4 per day at even intervals	

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

- a. The computed yield of each additive differs from the approved Job Mix Formula by 10% or more.
- b. The finished product is visually segregated, unstable, or otherwise defective, as determined by the Pugmill Manager.

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

310.051 Control Strip / Field Proctor The Pugmill Operator shall assemble all items of equipment for the recycling operation on the first day of the recycling work. The Contractor shall construct a control strip for the project at a location approved by the Resident. The control 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 sequence and manner of rolling necessary to obtain optimum compaction requirements; and;
- c. Establish the number of roller passes per roller.

The strip shall be full lane-width and at least 300 feet in length. After the control strip has been placed, it will be compacted with the required number of rollers as directed until density readings show an increase in density of less than 2 pcf for the final four roller passes. The number of passes for each roller shall be recorded and become part of the compaction process.

Should three consecutive test results for density fail to meet a minimum of 96.0% of TMD, or exceed the maximum of 102.0% of field established TMD, a new control strip shall be constructed.

310.06 Curing No new hot mix asphalt pavement shall be placed on the PMRAP asphalt pavement until a curing period of (5) five days has elapsed. The curing period starts once the final PMRAP layer has been placed on the roadway section paved. When weather conditions are unfavorable, the curing period may be extended by the Resident.

310.07 Method of Measurement PMRAP produced shall be measured by the ton. The PMRAP will be measured by calibrated plant belt scales, adjusted for moisture content or additive percentages added prior to the scale weight.

The asphalt emulsion and Portland cement will be paid by invoice, and adjusted by credit slips should complete loads not be used.

310.08 Basis of Payment The quantity of PMRAP produced will be measured for tracking purposes only. The crushing, screening, and stockpiling of RAP, gallons of emulsion used, tons of Portland cement used, and costs associated with the placement of the PMRAP materials shall also be documented for tracking project costs as well. Any commodity or hourly pay items will be paid under the appropriate pay item by invoice billing.

Payments will be made under:

	<u>Pay Item</u>	<u>Pay Unit</u>
203.70	Recycled Asphalt Pavement – Processing	Cubic Yard
310.21	Plant Mixed Recycled Asphalt Pavement – Mixing & Trucking	Ton
502.47	Portland Cement- Supply and Introduction	Ton
631	Paving Crew - Placement	HR

SPECIAL PROVISION
SECTION 401 - HOT MIX ASPHALT PAVEMENT

The Standard Specification 401 – Hot Mix Asphalt Pavement, has been modified with the following revisions. All sections not revised by this Supplemental Specification shall be as outlined in Section 401 of the Standard Specifications.

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

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

- a. Method A: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.85. No ceasing of paving operations shall be required for fines to effective binder if the mean test value is equal to the LSL or USL and $s = 0$.
- b. Method B: The Pay Factor for VMA, Voids @ N_d , Percent PGAB, composite gradation, VFB, fines to effective binder or density using all Acceptance or all Quality Control tests for the current lot is less than 0.90. No ceasing of paving operations shall be required for fines to effective binder if the mean test value is equal to the LSL or USL and $s = 0$.
- c. Method C: The Pay Factor for Percent PGAB, percent passing the nominal maximum sieve, percent passing 2.36 mm sieve, percent passing 0.300 mm sieve, percent passing 0.075 mm sieve or density using all Acceptance or all available Quality Control tests for the current lot is less than 0.85. No ceasing of paving operations shall be required for percent passing the nominal maximum sieve, percent passing 2.36 mm sieve, percent passing 0.300 mm sieve, or percent passing 0.075 mm sieve if the mean test value is equal to the LSL or USL and $s = 0$.
- d. The Coarse Aggregate Angularity or Fine Aggregate Angularity value falls below the requirements of Table 3: Aggregate Consensus Properties Criteria in Section 703.07 for the design traffic level.
- e. Each of the first 2 control tests for a Method A or B lot fall outside the upper or lower limits for VMA, Voids @ N_d , or Percent PGAB; or under Method C, each of the first 2 control tests for the lot fall outside the upper or lower limits for the nominal maximum, 2.36 mm, 0.300 mm or 0.075 mm sieves, or percent PGAB.
- f. The Flat and Elongated Particles value exceeds 10% by ASTM D4791.
- g. There is any visible damage to the aggregate due to over-densification other than on variable depth shim courses.
- h. The Contractor fails to follow the approved QCP.

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

TABLE 7: METHOD C ACCEPTANCE LIMITS

Property	USL and LSL
Passing 4.75 mm and larger sieves	Target +/-7%
Passing 2.36 mm to 1.18 mm sieves	Target +/-5%
Passing 0.60 mm	Target +/-4%
Passing 0.30 mm to 0.075 mm sieve	Target +/-2%
PGAB Content	Target +/-0.4%
% TMD (In place density)	95.0% +/- 2.5%

Pay Adjustment Method C

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

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

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

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

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

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

TABLE 10: DISPUTE RESOLUTION VARIANCE LIMITS

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

SPECIAL PROVISION SECTION 401
HOT MIX ASPHALT

(Thin Lift Surface Treatment – ¾ inch and 1 inch)

Description The Contractor shall furnish a uniformly blended, homogeneous mixture placed as one or more courses of Hot Mix Asphalt Pavement (HMA) on an approved base in accordance with the contract documents and in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the plans or established by the Resident. The Department shall accept this work under Quality Assurance provisions as specified in Special Provision Section 400; Subsection 401 - Hot Mix Asphalt Pavement, and Standard Specifications Section 106 - Quality.

The Thin Lift Surface Treatment shall meet all of the Materials, Seasonal Limitations, Equipment, and Construction requirements of Section 401, with the following additions and changes.

Materials The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.

Compaction As a minimum, compaction of the Thin Lift Surface Treatment will be obtained using a minimal roller train consisting of a 10 ton vibratory roller, 16 ton pneumatic roller, and a 10 ton finish roller. Once the methods are established, rolling patterns, equipment, and methods will become part of the QCP. Failure to conform to these requirements will be treated as a second incident under 106.4.6 QCP Non-compliance.

Acceptance Method A, B & C - Test Strip Requirements If the proposed JMF has been used and approved under Method A or B testing requirements for mix volumetric and density on a current MaineDOT project, including carryover mix designs used the previous year, a test strip will not be required. A test strip at a nominal depth of 1¼ inch, full lane width, shall be required with any new JMF's. The test strip is intended to allow the Contractor to establish a method of compaction for the Thin Lift Surface Treatment areas. The Contractor may elect to forgo the test strip in favor of the Control Strip Option as detailed in this specification.

All test strips (onsite or offsite) shall be evaluated using Method B testing protocol. Mix samples and cores will be obtained from the test strip. A minimum of three mix samples shall be randomly selected from the test strip. Three cores shall be randomly sampled from the mat and tested for density. If the pay factor for Density falls below 0.86 for Method B, all of the cores will be randomly re-cut. A new pay factor will be calculated that combines all initial and retest results. If the resulting pay factor is below 0.86 for Method B, the Department will reject the test strip. The Contractor will remove and replace rejected test strips at their expense. After completion of the test strip, the Contractor shall make any final adjustments to the job mix formula in accordance to Standard Specifications, Section 401, subsection 401.03 – Composition of Mixtures, or compaction method. Paving operations shall not resume until the Contractor and the Department determines that material meeting the Contract requirements can be produced, and any changes to the Job Mix Formula have been approved by the Department. The Department shall pay for an

accepted test strip as determined Section 401.222 – Pay Factor A and B, for this item.

The Contractor shall notify the Department at least 48 hours in advance of placing the test strip. Onsite test strips will not be excluded from the Project QA analysis, but will be evaluated in accordance with Section 401.03. On roads open to two way traffic, the test strip shall be placed over the full width of the travel way section, not to exceed 2000 ft in length, or 400 ton production. Prior to the placement of the test strip a passing verification test is required. A fog coat of bituminous tack coat shall be applied to the level course prior to surfacing. Payment will be made under the 409.15 – Bituminous Tack Coat pay item.

The Department may allow the Contractor to establish offsite test strips. If the Contractor proposes an offsite test strip the Department will require it to meet the onsite test strip requirements outlined in this specification with the exception that the offsite test strip will be excluded from the Project QA analysis.

Once the methods are established, the rolling patterns, equipment, and methods will become part of the QCP. The test strip will allow for any necessary adjustments to the mix design and or plant mixing procedures, as well as for the Department to evaluate the quality of the pavement. Changes to the compaction effort, number, or type of rollers may be permitted by the Department if damage to the HMA course becomes evident on the Thin Lift Surface Treatment areas. The use of a 10 ton vibratory roller, 16 ton pneumatic roller, and a 10 ton finish roller is required on all mixtures placed under this specification, unless otherwise authorized by the Department.

Control Strip Option The Contractor may elect to forgo the test strip for the Thin Lift Surface Treatment. If this option is selected, the Contractor will be required to provide a QCT onsite for the placement of the Thin Lift Surface Treatment to monitor placement activities and maximize the density of the material for each day of placement. The QCT will be required to perform density testing of the mixture using a density meter (according to ASTM D 2950). A control section will be established at the beginning of the first day of production to establish roller patterns. The control section mixture will be rolled until the density readings show less than 1 pcf change for the final roller passes. This density will be used as the target TMD for the mixture. The remainder of the areas to be paved shall be compacted to a minimum density of 98% of the target density as determined in the control section.

The Contractor shall record and provide reports of each day's results, including a daily paving report listing the mixture type, mixture temperatures, equipment used, environmental conditions, and number of roller passes used to obtain the target TMD. Reports shall be signed by the QCT and presented to the Department's representative by the end of the working day. If this option is selected, the QCT will be required to monitor the densities for the entire production run. The QCT shall be required to be onsite during all mainline paving operations.

The Department may halt the production and placement of the Thin Lift Surface Treatment and require the construction of a new test strip if the Department finds that material being produced, hauled, or placed does not meet the requirements of Sections 401.08 through 401.18.

Method of Measurement The Department will measure Hot Mix Asphalt pavement by the ton in accordance with Section 109 - Measurement and Payment.

Basis of Payment The Department will pay for the Work, in place and accepted, in accordance with the applicable sections of this Special Provision; at the contract unit price per ton for the Pay Item listed in Special Provision Section 403 – Hot Mix Asphalt.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
403.2104 9.5mm HMA - Thin Lift Surface Treatment	Ton
403.21041 9.5mm HMA – Polymer Modified Thin Lift Surface Treatment	Ton

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

Desc. Of Course	Grad Design.	Item Number	Total Thick	No. Of Layers	Comp. Notes
<u>¾" HMA Overlay Areas with Shim</u>					
<u>Mainline Travelway, Shoulders, & Approach Roads</u>					
Wearing	9.5 mm	403.2104	¾"	1	4,9,11,14,20,22
Shim	9.5 mm	403.211	variable	1/more	2,4,9,11,14,20
<u>Drives, Misc.</u>					
Wearing	9.5 mm	403.209	2"	1/more	2,3,10,11,14

COMPLEMENTARY NOTES

2. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on bridge decks.
3. The design traffic level for mix placed shall be <0.3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations**.
4. The design traffic level for mix placed shall be 0.3 to <3 million ESALS. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **50 gyrations**.
9. Section 106.6 Acceptance, (2) Method C. The Contractor may request a contract modification to change to testing method "A" prior to work starting on this item.
10. Section 106.6 Acceptance, (2) Method D.
11. The combined aggregate gradation required for this item shall be classified as a 9.5mm "**fine graded**" mixture, (using the Primary Control Sieve control point) as defined in 703.09.
14. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.
20. The Contractor may place the specified HMA pavement course, not to exceed 2 inch compacted depth, over the full single travel lane width, for each production day. If this option is utilized the Contractor will be required to place a matching course of HMA over the adjacent section of travel lane before the end of the following calendar day. The Contractor will also be responsible for installing additional warning signage that clearly defines the centerline elevation differential hazard. Unless otherwise addressed in the contract, the Contractor shall install additional centerline delineation such as a double RPM application, or temporary painted line for centerline depths exceeding ¾" inch, and provide a single RPM application placed on the newly placed pavement for ¾" inch or less layers. The Traffic Control Plan shall be amended to include this option and the additional requirements. All signs and traffic control devices will conform to Section 719.01, and Section 652, and will be installed prior to the work, at a maximum spacing of 0.50 mile for the entire length of effected roadway section. On roadways with two-way traffic, the Contractor will be required to place the specified course over the full width of the mainline traveled way being paved prior to opening the sections to weekend or holiday traffic. If this option is utilized, all additional signing, labor, traffic control devices, or incidentals will not be paid for directly, will be considered incidental to the appropriate 652 items.
22. See Special Provision 401 – Thin Lift Surface Treatment for project specifics.

Tack Coat

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

SPECIAL PROVISION
SECTION 631 EQUIPMENT RENTAL
(PAVING CREW)

631.01 Description This work shall consist of placing processed recycled asphalt pavement (PMRAP) produced by the MaineDOT pugmill in one or more courses in areas designated in the contract. The Department will notify the Contractor two weeks prior to the planned placement of PMRAP. All PMRAP shall be placed on an approved base in accordance with these specifications and in reasonably close conformity with the lines, grades, and thicknesses established in the contract, or as directed by the Department.

EQUIPMENT

631.031 Loading and Hauling Equipment Trucks will be loaded using Department supplied equipment.

631.032 Bituminous Pavers Pavers shall be equipped with a 10 foot heated and activated main screed, and shall be equipped with power extendible, activated extensions and automatic grade and slope controls. Pavers shall conform to the 401 Specification; subsection 401.09 - Pavers.

631.033 Rollers One 10 ton dual drum steel roller equipped with vibratory or oscillatory compaction will be required. Two pneumatic-tired rollers shall be required, one ballasted to 16 ton minimum, and the second pneumatic-tired roller ballasted to 8-10 ton. The roller sequence and pattern will be as determined by a control strip at the beginning of the first day of full lane width PMRAP placement. All rollers shall conform to the 401 Specification; subsection 401.10 – Rollers, unless otherwise authorized by the Department.

631.034 Crew At a minimum, the crew shall consist of a paver operator, three roller operators, two screed/wheel men, a laborer, and a foreperson.

631.042 Spreading and Finishing The mixture shall be spread and finished in accordance with Section 401.15, or as otherwise established by the contract documents. Thicknesses may vary. Localized spot shims or partial width shim layers may be required. With the exception of localized spot or partial width shim layers, the minimum compacted layer thickness will be 1 inch. Areas requiring the placement of PMRAP in excess of 4 inches total depth shall be paved in multiple layers. Each layer will not exceed 4 inches. Extended cure times may be needed for multiple lift areas.

631.043 Compaction Compaction of the mixture shall be in accordance with Section 401.16 and the PMRAP Special Provision. Rolling effort, timing, or sequence of rollers may be changed as directed by the Department to avoid excessive pushing, shoving, cracking, or other damage to the layer.

631.044 Joints Joints shall be constructed in accordance with Section 401.17.

631.07 Method of Measurement Placement of PMRAP shall be paid by the hour to the nearest ¼ hour. Up to 8 hours per day will be paid under 631.161. Hours past the 8 hour period will be paid under 631.162.

631.08 Basis of Payment The accepted quantity of placement of PMRAP will be paid for at the contract unit price per hour complete in-place. The unit price will be full compensation for furnishing all equipment and labor for placing, compacting, and for all other incidentals necessary to complete the work.

<u>Pay Item</u>	<u>Pay Unit</u>
631.161 Paving Crew	Hour
631.162 Paving Crew (Overtime)	Hour

SPECIAL PROVISION
SECTION 652
MAINTENANCE OF TRAFFIC

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

- Road work Next x Miles
- Road work 500 Feet
- End Road Work

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

- Road Work xxxx ¹
- One Lane Road Ahead
- Flagger Sign

Other typical signs include:

- Be Prepared to Stop
- Low Shoulder
- Bump
- Pavement Ends

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

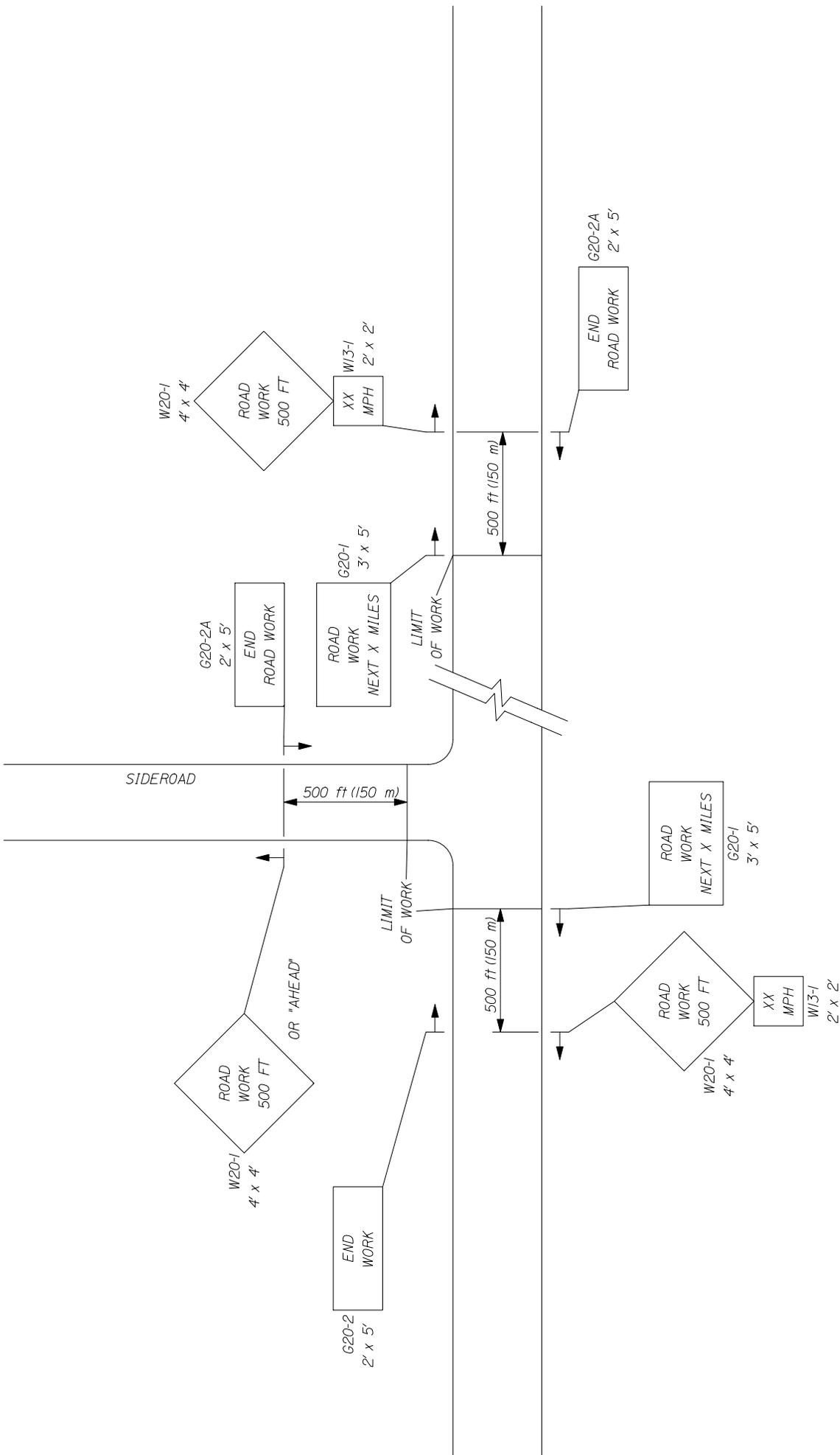
The Contractor shall conduct their operations in such a manner that the roadway will not be restricted to one lane for more than 800 m [2,500 ft] at each work area. To encourage quality paving in warm-weather conditions, the length can be extended to 4,000 ft depending on the traffic impacts. Where more than one work area restricts traffic to one lane operation, these work areas shall be separated by at least 1.6 km [1 mile] of two way operation.

Temporary Centerline A temporary centerline shall be placed each day on all new pavement to be used by traffic. The temporary centerline, when specified of reflectorized traffic paint, shall conform to the standard marking patterns used for permanent markings.

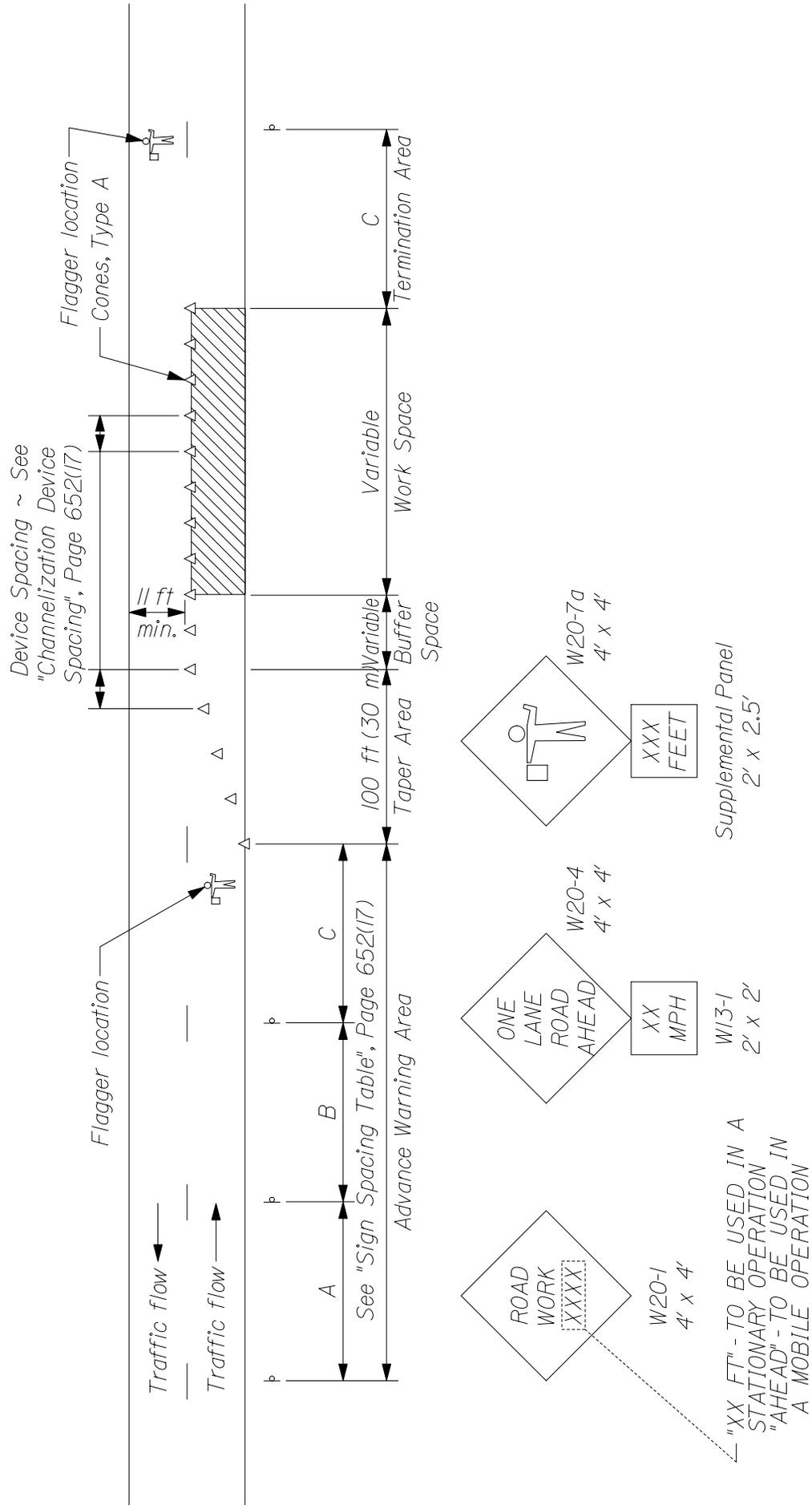
Failure to apply a temporary centerline daily will result in a Traffic Control Violation and suspension of paving operations until temporary markers are applied to all previously placed pavement.

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

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-- PROJECT APPROACH SIGNING --
TWO WAY TRAFFIC



TYPICAL APPLICATION: TWO - WAY, TWO LANE ROADWAY, CLOSING ONE LANE USING FLAGGERS

* Formulas for L are as follows:

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

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

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

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

* Formulas for L are as follows:

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

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

CHANNELIZATION DEVICE SPACING

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

GENERAL NOTES;

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

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

**Distances are shown in feet (meters).

SUGGESTED BUFFER ZONE LENGTHS

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

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

104.4.4 Coordination of Road Closure / Bridge Closure / Bridge Width Restrictions

Revise the last sentence by adding a period after ‘Resident’; remove the “and” after Resident; and adding “**not covered by Pay Items**” between ‘costs’ and ‘will’. So that the last paragraph reads “**All Newspaper notices, radio announcements and any notifications will be subject to the approval of the Resident. All costs not covered by Pay Items will be considered incidental to the Contract.**”.

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
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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:

<u>Pay Item</u>	<u>Pay Unit</u>
307.331 Full Depth Recycled Pavement (Untreated) Yard	Square
307.332 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 5 in. depth Yard	Square
307.333 Full Depth Recycled Pavement (with Emulsified Asphalt Stabilizer) 6 in. depth Yard	Square

SECTION 411
UNTREATED AGGREGATE 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 \geq 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 not meeting the requirements listed in Table 1 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

In 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, revise the Chloride Permeability section by removing it in its entirety and replacing it with:

Surface Resistivity {Permeability in Kohm-cms and Pay Reduction per CY}			
15-16 (\$50)	13 (\$25)	N/A	N/A
13-14 (\$75)	12(\$50)	N/A	N/A
12 (\$100)	11 (\$75)	N/A	N/A
11 (\$125)	10 (\$100)	N/A	N/A
< 11 (Removal)	< 10 (Removal)	N/A	N/A

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 527 **ENERGY ABSORBING UNIT**

527.02 Materials This section is revised to read as follows.

527.02 Materials Work Zone Crash Cushions must comply with NCHRP Report 350. Work Zone Crash Cushions shall be selected from MaineDOT's Qualified Products List of Crash Cushions / Impact Attenuators, or an approved equal.

Acceptance Testing of Precast/Prestressed Concrete
Suggested Revisions to the Standard Specification to Require Acceptance Testing to be done by Representatives of the MaineDOT

SECTION 534 **PRECAST STRUCTURAL CONCRETE**

534.14 Process Control Test Cylinders

Revise this subsection to read:

“534.14 Acceptance and Quality Control Testing of Concrete Refer to Section 712.061.”

SECTION 535 **PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE**

Section 535.08 – Quality Assurance

Revise the second paragraph to read:

“The QAI will perform acceptance sampling and testing and will witness or review documentation, workmanship and testing to assure the Work is being performed in accordance with the Contract Documents.”

Section 535.15 - Process Control Test Cylinders

Revise the first paragraph to read:

“535.15 Acceptance and Quality Control Testing of Concrete Acceptance of structural precast/prestressed units, for each day's production, will be determined by the Department, based on compliance with this specification and satisfactory concrete testing results. At least once per week, the QAI will make 2 concrete cylinders (6 cylinders when the Contract includes permeability requirements) for use by the Department; cylinders shall be standard cured in accordance with AASHTO T23 (ASTM C31). The QAI will perform entrained air content and slump flow testing, determine water-cement ratio and determine temperature of the sampled concrete at the time of cylinder casting. All testing equipment required by the QAI to perform this testing shall be provided in accordance with Standard Specification Section 502.041, Testing Equipment. In addition, the Contractor shall provide a slump cone meeting the requirements of AASHTO T 119. Providing and maintaining testing and curing equipment shall be considered incidental to the work and no additional payment will be made.”

Insert the following as the second paragraph of Section 535.15:

“Quality Control concrete test cylinders shall be made for each day’s cast and each form bed used. Cylinders tested to determine strand release strength and design strength shall be field cured in accordance with AASHTO T23 (ASTM C31). 28 day cylinders shall be standard cured. Record unit identification, entrained air content, water-cement ratio, slump flow and temperature of the sampled concrete at the time of cylinder casting.”

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 606
GUARDRAIL

606.09 Basis of Payment Amend the first sentence of the eighth paragraph of this subsection by removing the word "meter" and replace it with "linear foot".

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**

626.033 Polyvinylchloride Conduit Installation Amend the following subsection by adding the following paragraph to its end:

“NON-METALLIC UNDER PAVEMENT CONDUIT INSTALLATION

Where noted on the drawings, non-metallic under pavement conduit of schedule 80 or greater rating shall be provided to facilitate conduit crossing of the existing highway and ramps without disruption to the existing highway and ramp pavement surface. The non-metallic under pavement conduit shall be hydraulically jacked or directional bored below the highway and ramp at a depth of not less than (36 inches). Under pavement conduit shall extend for a distance of (10 feet) beyond the highway or ramp edge at each side.”

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.....”

626.05 Basis of Payment Amend this subsection by adding the following paragraph and Pay Item:

“**Payment will be made for the total number of (linear feet) of under pavement conduit actually furnished, installed and accepted at the contract price per (linear foot). This price shall include the cost of: furnishing and installing the conduit; excavating; furnishing special backfilling materials, pull wire, fittings, grounding and bonding; test cleaning interiors of conduits and all materials, labor, equipment and incidentals necessary to complete the work.**”

Pay Item	Pay Unit
626.251 Non-Metallic Under pavement Conduit (Schedule 80 or greater rating)	(Linear Foot)

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 revise 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.**”.

652.3.4 General Revise the eighth paragraph by removing “Earth Berm” and replace it with “**Concrete Barrier**”.

652.4 Flaggers In the first paragraph, revise 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.

652.41 TRAFFIC OFFICERS

Revise this subsection so that the subsection number and title is
“652.4.1 TRAFFIC OFFICERS”

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 674

PREFABRICATED CONCRETE MODULAR GRAVITY WALL

674.02 Materials

Amend this section by adding the following after “Concrete Units:” and before the paragraph beginning with “Tolerances”.

Concrete shall be Class P. The concrete shall contain a minimum of 5.5 gallons per cubic yard of calcium nitrite solution.

The minimum permeability of the concrete as indicated by Surface Resistivity shall be 17 KOhm-cm.

Defects Defects which may cause rejection of precast units include, but are not limited to, the following:

Any discontinuity (crack, rock pocket, etc.) of the concrete which could allow moisture to reach the reinforcing steel.

Rock pockets or honeycomb over 6 square inches in area or over 1 inch deep.

Edge or corner breakage exceeding 12 inches in length or 1 inch in depth.

Any other defect that clearly and substantially impacts the quality, durability, or maintainability of the structure, as determined by the Fabrication Engineer.

Repair honeycombing, ragged or irregular edges and other non-structural or cosmetic defects using a patching material from the MaineDOT Qualified Products List (QPL). The repair, including preparation of the repair area, mixing and application and curing of the patching material, shall be in accordance with the manufacturer's product data sheet. Corners that are not exposed in the final product may be ground smooth with no further repair necessary if the depth of the defect does not exceed 1/2 inch. Remove form ties and other hardware to a depth of not less than 1 inch from the face of the concrete and patch the holes using a patching material from the MaineDOT QPL.

Repair structural defects only with the approval of the Fabrication Engineer. Submit a nonconformance report (NCR) to the Fabrication Engineer with a proposed repair procedure. Do not perform structural repairs without an NCR that has been reviewed by the Fabrication Engineer. Structural defects include, but are not be limited to, exposed reinforcing steel or strand, cracks in bearing areas, through cracks and cracks 0.013 inch in width that extend more than 12 inches in length in any direction. Give the QAI adequate notice prior to beginning any structural repairs.

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 712 **MISCELLANEOUS HIGHWAY MATERIAL**

Section 712.061- Structural Precast Concrete Units

Under the heading, Quality Control and Quality Assurance, revise the fourth paragraph to read:

“Acceptance is the prerogative of the Department. The Department will conduct Quality Assurance (QA) in accordance with Standard Specification Subsection 106.5. Testing deemed necessary by the Department that is in addition to the minimum testing requirements will be scheduled to minimize interference with the production schedule. The QAI will perform acceptance sampling and testing and will witness or review documentation, workmanship and testing to assure the Work is being performed in accordance with the Contract Documents.”

Under the heading, Concrete Testing, revise the first paragraph to read as the following two paragraphs:

“Concrete Testing Acceptance of structural precast units, for each day’s production, will be determined by the Department, based on compliance with this specification and satisfactory concrete testing results. At least once per week, the QAI will make 2 concrete cylinders (6 cylinders when the Contract includes permeability requirements) for use by the Department; cylinders shall be standard cured in accordance with AASHTO T23 (ASTM C31). The QAI will perform entrained air content and slump flow testing, determine water-cement ratio and determine temperature of the sampled concrete at the time of cylinder casting. All testing equipment required by the QAI to perform this testing shall be in accordance with Standard Specification Section 502.041, Testing Equipment. In addition, the Contractor shall provide a slump cone meeting the requirements of AASHTO T 119. Providing and maintaining testing and curing equipment shall be considered incidental to the work and no additional payment will be made.

Quality Control test cylinders shall be made and tested in accordance with the following standards:

- AASHTO T 22 (ASTM C39) Test Method for Compressive Strength of Cylindrical Concrete Specimens**
- AASHTO T23 (ASTM C31) Practice for Making and Curing Concrete Test Specimens in Field**
- AASHTO T141 (ASTM C172) Practice for Sampling Freshly Mixed Concrete**
- AASHTO T152 (ASTM C231) Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method**
- AASHTO T196 (ASTM C173) Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method**
- ASTM C1064 Test Method for Temperature of Freshly mixed Portland Cement Concrete**
- ASTM C1611 Standard Test Method for Slump Flow of Self-Consolidating Concrete”**

Under the heading, Concrete Testing, **delete** the paragraph that begins:

“At least once per week, the Contractor shall make 2 concrete cylinders.....for use by the Department.....”

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”**

