

# **Controlled Access Highway and Interstate Mowing and Litter Removal**

**Regions 2, 4 and 5**

**2023**

**Updated 05/15/2020**

# **STATE PROJECT**

**MAINTENANCE & OPERATIONS**

## BIDDING INSTRUCTIONS

1. Use pen and ink to complete all paper Bids. Signatures shall be original. Stamped and copied signatures will not be accepted. Bids are not accepted by email or FAX.

**NOTE: Electronic Bids will not be accepted for this bid.**

2. As a minimum, the following should be received prior to the time of Bid opening: a) a copy of the Notice to Contractors, b) the completed Acknowledgement of Bid Amendments form, c) the completed Schedule of Items or Schedule of Items in Appendix A, d) two copies of the completed and signed Contract Agreement form, e) the completed Contractor Information Sheet, and f) any other certifications or Bid requirements listed in the Bid Documents as due by Bid opening.
3. Include prices for items Bidder is bidding in the Schedule of Items.
4. All Bid Packages which are mailed or sent express, shall be provided in double (one envelope inside the other) envelopes, for security and other reasons. The *Inner Envelope* shall have the following information provided on it:
  - Bid Enclosed - Do Not Open
  - WIN or Title: **Controlled Access Highway and Interstate Mowing and Litter Removal**
  - Towns, Regions, or Location: **Regions 2, 4 and 5**
  - 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  
WIN or Title: **Controlled Access Highway and Interstate Mowing and Litter Removal**  
Towns, Regions, or Location: **Regions 2, 4 and 5**  
Date of Bid Opening:  
Name of Contractor:

If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time and that delivery may be affected by carrier volume, weather, and other factors. Packages using express services should be sent directly to the DOT Headquarters Building, Maine Department of Transportation, 24 Child Street, Augusta. "FedEx First Overnight" delivery is suggested as the package is delivered directly to the DOT Headquarters Building, Mailroom, 24 Child Street, Augusta. Allow extra days for U.S. Postal Service Express Mail which has proven not to be reliable and sometimes does not deliver directly to the DOT Headquarters Building but instead delivers to the State of Maine Mail Distribution Center.

If a paper bid is to be mailed, the mailing address is Maine Department of Transportation, 16 State House Station, Augusta, ME 04333-0016. Allow additional working days for this mail to pass through the state mail system in addition to the US Postal Service as this mail is not delivered directly to the Department of Transportation.

If a paper Bid is to be hand carried, deliver directly to the “Public Entrance” which is located on the Capitol Street side of the DOT Headquarters Building in Augusta.

<http://www.maine.gov/mdot/contact>. Hand-carried Bids may be in one envelope, and should be marked with the following information:

Bid Enclosed: Do Not Open

WIN or Title: **Controlled Access Highway and Interstate Mowing and Litter Removal**

Towns, Regions or Location: **Regions 2, 4 and 5**

Date of Bid Opening:

Name of Contractor:

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

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

# NOTICE

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

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

# 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](mailto: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>

## CONTRACTOR INFORMATION

**Contractor Name:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_

**Vendor Customer Number:** \_\_\_\_\_

**Contact Information (Primary Contact):** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Cell Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Mailing Address (if different from above):** \_\_\_\_\_

\_\_\_\_\_

**The company has the following organizational structure:**

**Sole Proprietorship**

**Limited Liability Company**

**Partnership**

**Joint Venture**

**Corporation**

**Other:** \_\_\_\_\_

\_\_\_\_\_  
**(Date)**

\_\_\_\_\_  
**(Signature)**

\_\_\_\_\_  
**(Name and Title Printed)**

**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 **Controlled Access Highway and Interstate Mowing Including Litter Removal in Region 2, 4 and 5**” 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 10, 2023** and at that time and place publicly opened and read. Bids will be accepted from all bidders. The lowest responsive bidder must demonstrate successful completion of projects of similar size and scope to be considered for the award of this contract. **Electronic Bidding will not be available for this bid.**

Description: Controlled Access Highway and Interstate Mowing and Litter Removal Regions 2, 4 and 5

Location: Region 2 in the counties of Kennebec, Somerset, and Sagadahoc.  
Region 4 in the counties of Waldo, Somerset, and Penobscot.  
Region 5 in the counties of Penobscot and Aroostook

Outline of Work: Mowing and litter removal along interstate and controlled access highways in Regions 2 and 4, litter removal in Region 5, and other incidental work.

**Contractor may bid on one or more Areas within Regions 2, 4 and 5 and any combination of Areas.**

**The basis of award will be apparent low bidder by Area.**

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, bid results and an electronic form for RFI submittal. For Project-specific information fax all questions to **Gail Iler** at (207) 624-3431, use electronic RFI form or email questions to [RFI-Contracts.MDOT@maine.gov](mailto:RFI-Contracts.MDOT@maine.gov), project name and identification number should be in the subject line. Questions received after 12:00 noon of Friday prior to bid date will not be answered. Bidders shall not contact any other Departmental staff for clarification of Contract provisions, and the Department will not be responsible for any interpretations so obtained. TTY users call Maine Relay 711.

Bid Documents, specifications and bid forms can be viewed and obtained digitally at no cost at <http://www.maine.gov/mdot/contractors/>. They may be obtained from the Maine Department of Transportation, Attn.: Mailroom, 24 Child Street, Augusta, Maine 04333-0016 or requested by telephone at (207) 624-3536.

**There will be no bid bonds, performance bonds or payment bond required.**


Each Bid must be made upon blank forms provided by the Department.

This Contract is subject to all applicable State Laws.

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

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

Augusta, Maine  
**April 19, 2023**



KYLE HALL, DIRECTOR  
BUREAU OF MAINTENANCE & OPERATIONS

**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)

**SCHEDULE OF ITEMS  
Region 2, Area 1**

**Contractor** \_\_\_\_\_

**Bidders may Bid all Areas or any combination of Areas in Regions 2, 4, and/or 5. Bidders are required to Bid all items in each Area Bid. Refer to Region 2, Area 1 Work Schedule for description of time allowed for each Area.**

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u> (per acre cost)	<u>Total Cost</u> (Unit Cost x Quantity)
1	<b><u>Initial Litter Removal</u></b> done prior to first mowing	432	Acre	\$	\$
2	<b><u>Mow 15-foot swath</u></b> from pavement edge on <u>all</u> Inslopes NB & SB <u>and</u> for all interchange ramps.	189	Acre		
3	<b><u>Mow all inslopes and backslopes,</u></b> NB & SB and <u>all</u> Inslopes and Backslopes areas for all interchange ramps.	432	Acre		
<b>Region 2 Area 1 Sum of Total Costs</b>					\$

**Region 2 Area 1 work area includes:**

- Interstate 95 Northbound and Southbound from the exit 109 ramps in Augusta, including all interchanges and interchange ramps, to the Lower Kennebec River bridge in Fairfield. This area excludes solar panel fields. Mowing includes a portion of Route 3 from I-95 to Church Hill Road.

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_ \_\_\_\_\_  
*Signature* *Date*

\_\_\_\_\_  
*(Print Bidder's Name and Title)*

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

**Region 2, Area 2**

**Contractor** \_\_\_\_\_

**Bidders may Bid all Areas or any combination of Areas in Regions 2, 4, and/or 5. Bidders are required to Bid all items in each Area Bid. Refer to Region 2, Area 2 Work Schedule for description of time allowed for each Area.**

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u> (per acre cost)	<u>Total Cost</u> (Unit Cost x Quantity)
1	<b><u>Initial Litter Removal</u></b> done prior to first mowing	395	Acre	\$	\$
2	<b><u>Mow 15-foot swath</u></b> from pavement edge on <u>all</u> Inslopes NB & SB <u>and</u> for all interchange ramps.	100	Acre	\$	\$
3	<b><u>Mow all inslopes and backslopes,</u></b> NB & SB and <u>all</u> Inslopes and Backslopes areas for all interchange ramps.	300	Acre	\$	\$
<b>Region 2 Area 2 Sum of Total Costs</b>					\$

**Region 2 Area 2 work area includes:**

- Interstate 295 Northbound and Southbound from the southernmost extent of the Bowdoinham Interchange, exit 37, including all interchanges and interchange ramps, to the tollbooth in West Gardiner.
- Litter removal is from the Topsham/Bowdoin townline to the tollbooth in West Gardiner, including all interchanges and interchange ramps.

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_

*Signature* *Date*

\_\_\_\_\_

(Print Bidder's Name and Title)

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

**Region 4, Area 1**

**Contractor** \_\_\_\_\_

**Bidders may Bid all Areas or any combination of Areas in Regions 2, 4, and/or 5. Bidders are required to Bid all items in each Area Bid. Refer to Region 4, Area 1 Work Schedule for description of time allowed for each Area.**

Item	Description	Quantity	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost x Quantity)
1	<b><u>Initial Litter Removal</u></b> done prior to Mowing 15-foot swath	726	Acre	\$	\$
2	<b><u>Mow 15-foot swath</u></b> from pavement edge on <u>all Inslopes</u> NB & SB <u>and</u> for all interchange ramps.	281	Acre	\$	\$
3	<b><u>Mow all Inslopes and Backslopes</u></b> NB & SB and <u>all</u> Inslopes and Backslopes areas for all interchange ramps.	726	Acre	\$	\$
<b>Region 4, Area 1 Total</b>					<b>\$</b>

**Work Area Description:** Interstate 95 Northbound and Southbound from the Kennebec River in the Town of Benton at Mile 133.8 to the crossover at Mile 178.9 in the Town of Hampden, including all interchanges and interchange ramps.

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_  
*Signature* \_\_\_\_\_  
*Date*

\_\_\_\_\_  
*(Print Bidder's Name and Title)*

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

**Region 4, Area 2**

**Contractor** \_\_\_\_\_

**Bidders may Bid all Areas or any combination of Areas in Regions 2, 4, and/or 5. Bidders are required to Bid all items in each Area Bid. Refer to Region 4, Area 2 Work Schedule for description of time allowed for each Area.**

Item	Description	Quantity	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost times Quantity)
1	<b><u>Initial Litter Removal</u></b> All Area 2 – done prior to first mowing	351	Acre	\$	\$
2	<b><u>First Inslope Mowing Bangor Area</u></b> I-95 Mile 178.9 to Mile 187.7 <b>77 Acres</b> I-395 Odlin Road to Route 1A <b>78 Acres</b> Route 202 Connector <b>22 Acres</b>	177	Acre	\$	\$
3	<b><u>First Inslope Mowing North of Bangor</u></b> I-95 Mile 187.7 to 199.1 <b>90 Acres</b>	90	Acre	\$	\$
4	<b><u>Inslope and Backslope Mowing</u></b> for all Inslopes and Backslopes including all ramps as assigned to the Contractor	331	Acre	\$	\$
<b>Region 4, Area 2 Total</b>					<b>\$</b>

**Work Area Description:**

- Interstate 95 Northbound and Southbound from the crossover at Mile 178.9 in the Town of Hampden to the crossover at Mile 199.1 in the Town of Old Town, including all interchanges and interchange.
- Interstate 395 Eastbound and Westbound from the Odlin Road in the Town Bangor to the intersection of Route 1A in the Town of Brewer, including all interchanges and interchange ramps.
- The Route 202 Connector from Interstate 395 in the Town of Bangor to the intersection of Route 9 and 202 in the Town of Hampden.

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_  
*Signature* \_\_\_\_\_  
*Date*

\_\_\_\_\_  
*(Print Bidder's Name and Title)*

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

**Region 4, Area 3**

**Contractor** \_\_\_\_\_

**Bidders may Bid all Areas or any combination of Areas in Regions 2, 4, and/or 5. Bidders are required to Bid all items in each Area Bid. Refer to Region 4, Area 3 Work Schedule for description of time allowed for each Area.**

Item	Description	Quantity	Unit	Unit Cost (per acre cost)	Total Cost (Unit Cost times Quantity)
1	<b><u>Initial Litter Removal</u></b>	820	Acre	\$	\$
2	<b><u>Inslope and Backslope</u></b> for all inslopes and backslopes including all ramps	820	Acre	\$	\$
<b>Region 4, Area 3 Total</b>					<b>\$</b>

**Work Area Description:**

- Interstate 95 Northbound and Southbound from the crossover at Mile 199.1 in the Town of Old Town to the crossover at Mile 232.3 in the Township of T2 R8 NWP, including all interchanges and interchange ramps.

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_  
*Signature*
\_\_\_\_\_  
*Date*

\_\_\_\_\_

*(Print Bidder's Name and Title)*

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

**Region 5**

**Contractor** \_\_\_\_\_

**Bidders may Bid all Areas or any combination of Areas in Regions 2, 4, and/or 5. Bidders are required to Bid all items in each Area Bid. Refer to Region 5 Work Schedule for description of time allowed for each Area.**

Item	Description	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u> each mowing (per acre cost)	<u>Total Cost</u> (Unit Cost times Quantity)
1	<b><u>Litter Removal Only</u></b>	1613	Acre	\$	\$

**Work Area Description:**

Interstate 95 Northbound and Southbound from the crossover at Mile 232.3 in the Township of T2 R8 NWP to the end of I-95 at the Customs border crossing at Mile 304.8, including all interchanges and interchange ramps.

**Refer to Region 5 Work Schedule for description of time allowed for each Item**

By signing below, the Bidder (1) represents that the Bidder has examined the Contract Agreement contained in the Bid Documents, the Contract, all documents referenced in said Contract, and the site and scope of work, (2) does hereby bid and offer to enter into this contract to construct and/or perform the Work in strict accordance with the terms and conditions of this Contract at the unit prices bid in the attached "Schedule of Items", (3) represents that the Bidder has given the Department notice of any errors or ambiguities related to the documents or the work that have been discovered by the Bidder, (4) represents that the above-named organization is the legal entity entering into the resulting contract with the Department if they are awarded the contract and, (5) represents that the undersigned is authorized to enter contractual obligations on behalf of the above-named organization.

Bidder acknowledges that the properly completed and signed Schedule of Items provided with the Bid constitutes the Bidder's offer and that this offer shall remain open for 30 calendar days after the date of opening of bids.

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.

Use pen and ink to complete paper bids. Signatures shall be original. Stamped and copied signatures will not be accepted.

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*(Print Bidder's Name and Title)*

Bids are not accepted by email or FAX. If a paper Bid is to be sent express, please take note that overnight services do not always arrive in time. Packages using express services should be sent to Maine Department of Transportation, 24 Child Street, Augusta, Maine.

CTM: \_\_\_\_\_  
TEDOCS# \_\_\_\_\_  
CSN \_\_\_\_\_

## **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 \_\_\_\_\_

\_\_\_\_\_ **(Contractor)**  
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, **Controlled Access Highway and Interstate Mowing and Litter Removal in Region 2, 4 and 5, in the counties of Kennebec, Sagadahoc, Waldo, Somerset, Aroostook, and Penobscot**, Maine. The Work includes mowing and litter removal, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools, supplies, required to perform the Work including quality control including inspection, and documentation, 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 Contract commences on **April 1, 2023** or when executed whichever is later and expires on **March 31, 2024**. The Contractor agrees to complete all Work, except warranty work, on or before **October 31, 2023**. At the Department's discretion and upon mutual agreement with the Contractor, the Contract may be extended for time and money, under all the terms of this Contract, for up to (5) additional 1-year periods.

### **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.

For each additional year of the Contract, beyond the initial Contract year, a 2% escalation factor shall be added to the Center Line Mile Unit Price from the Schedule of Items.

Mowing, and only Mowing, will be paid for at the Unit Cost Payment Rate per acre which is the rate bid and adjusted based on the variance in costs for the diesel fuel component of the work. Rate adjustments will be made upward or downward, as diesel prices increase or decrease. Adjustments will be as determined by the Department as follows:

Base Fuel Price: The base price of diesel fuel is the price per gallon shown as the weekly retail cost of diesel fuel for the U.S. On-Highway Diesel Fuel Prices, New England Subdistrict (PADD1A) found at <https://www.eia.gov/petroleum/gasdiesel/> for the date most immediately preceding the Bid Opening Date.

Period Fuel Price: The period price is the price per gallon shown as the weekly retail cost of diesel fuel for the U.S. On-Highway Diesel Fuel Prices, New England Subdistrict (PADD1A) found at <https://www.eia.gov/petroleum/gasdiesel/> for the date most immediately preceding the adjustment period dates of March 20 and August 1 of each year.

Base Unit Cost Rate: The Base Unit Cost Rate shall be the unit cost per acre bid.

Period Unit Cost Rate: The Period Unit Cost Rate is the rate bid and adjusted in accordance with the chart below.

Difference between Base Fuel Price and Period Fuel Price	Adjustment to Base Unit Cost Rate to get Period Unit Cost Rate
Increase of \$0.00 – \$0.49	No change
Increase of \$0.50 - \$1.49	Increase \$3.00
Increase of \$1.50 – \$2.49	Increase \$6.00
Increase of \$2.50 – \$3.49	Increase \$9.00
Decrease of \$0.00 - \$0.99	No change
Decrease of \$1.00 - \$1.99	Decrease \$3.00
Decrease of \$2.00 - \$2.99	Decrease \$6.00
Decrease of \$3.00 or more	Decrease \$9.00

Adjustment Period: The Period Unit Payment Rates will become effective on the second Saturday after the Adjustment period dates of March 20 and August 1 of each year and will remain in effect until the next period adjustment.

Mobilization to and from the jobsite will not be paid separately and will be considered incidental to the base rental rate.

**D. Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents, Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, and Contract Agreement. 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 March 2020 Edition, Standard Details March 2020 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement contained herein for completion of: **Controlled Access Highway and Interstate Mowing and Litter Removal in Regions 2, 4 and 5, in the counties of Kennebec, Sagadahoc, Waldo, Somerset, Aroostook, and Penobscot**, 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 tools, equipment and labor to complete 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 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 Region, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, March 2020 Edition, and as addressed in the contract documents.

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

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

Fourth: 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.



CTM: \_\_\_\_\_  
TEDOCS# \_\_\_\_\_  
CSN \_\_\_\_\_

## **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 \_\_\_\_\_

\_\_\_\_\_ **(Contractor)**  
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, **Controlled Access Highway and Interstate Mowing and Litter Removal in Region 2, 4 and 5, in the counties of Kennebec, Sagadahoc, Waldo, Somerset, Aroostook, and Penobscot**, Maine. The Work includes mowing and litter removal, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools, supplies, required to perform the Work including quality control including inspection, and documentation, 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 Contract commences on **April 1, 2023** or when executed whichever is later and expires on **March 31, 2024**. The Contractor agrees to complete all Work, except warranty work, on or before **October 31, 2023**. At the Department's discretion and upon mutual agreement with the Contractor, the Contract may be extended for time and money, under all the terms of this Contract, for up to (5) additional 1-year periods.

### **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.

For each additional year of the Contract, beyond the initial Contract year, a 2% escalation factor shall be added to the Center Line Mile Unit Price from the Schedule of Items.

Mowing, and only Mowing, will be paid for at the Unit Cost Payment Rate per acre which is the rate bid and adjusted based on the variance in costs for the diesel fuel component of the work. Rate adjustments will be made upward or downward, as diesel prices increase or decrease. Adjustments will be as determined by the Department as follows:

Base Fuel Price: The base price of diesel fuel is the price per gallon shown as the weekly retail cost of diesel fuel for the U.S. On-Highway Diesel Fuel Prices, New England Subdistrict (PADD1A) found at <https://www.eia.gov/petroleum/gasdiesel/> for the date most immediately preceding the Bid Opening Date.

Period Fuel Price: The period price is the price per gallon shown as the weekly retail cost of diesel fuel for the U.S. On-Highway Diesel Fuel Prices, New England Subdistrict (PADD1A) found at <https://www.eia.gov/petroleum/gasdiesel/> for the date most immediately preceding the adjustment period dates of March 20 and August 1 of each year.

Base Unit Cost Rate: The Base Unit Cost Rate shall be the unit cost per acre bid.

Period Unit Cost Rate: The Period Unit Cost Rate is the rate bid and adjusted in accordance with the chart below.

Difference between Base Fuel Price and Period Fuel Price	Adjustment to Base Unit Cost Rate to get Period Unit Cost Rate
Increase of \$0.00 – \$0.49	No change
Increase of \$0.50 - \$1.49	Increase \$3.00
Increase of \$1.50 – \$2.49	Increase \$6.00
Increase of \$2.50 – \$3.49	Increase \$9.00
Decrease of \$0.00 - \$0.99	No change
Decrease of \$1.00 - \$1.99	Decrease \$3.00
Decrease of \$2.00 - \$2.99	Decrease \$6.00
Decrease of \$3.00 or more	Decrease \$9.00

Adjustment Period: The Period Unit Payment Rates will become effective on the second Saturday after the Adjustment period dates of March 20 and August 1 of each year and will remain in effect until the next period adjustment.

Mobilization to and from the jobsite will not be paid separately and will be considered incidental to the base rental rate.

**D. Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents, Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, and Contract Agreement. 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 March 2020 Edition, Standard Details March 2020 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement contained herein for completion of: **Controlled Access Highway and Interstate Mowing and Litter Removal in Regions 2, 4 and 5, in the counties of Kennebec, Sagadahoc, Waldo, Somerset, Aroostook, and Penobscot**, 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 tools, equipment and labor to complete 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 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 Region, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Standard Specifications, March 2020 Edition, and as addressed in the contract documents.

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

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

Fourth: 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.



CTM: \_\_\_\_\_  
TEDOCS# \_\_\_\_\_  
CSN \_\_\_\_\_

## **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**) (**Contractor**) 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, **Controlled Access Highway and Interstate Mowing Including Litter Removal in Region 2 and 4, in the counties of Kennebec, Sagadahoc, Waldo, Somerset, and Penobscot, Maine.** The Work includes mowing and litter removal, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools, supplies, required to perform the Work including quality control including inspection, and documentation, 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 Contract commences on **April 1, 2023** or when executed whichever is later and expires on **March 31, 2024**. The Contractor agrees to complete all Work, except warranty work, on or before **October 31, 2023**. At the Department's discretion and upon mutual agreement with the Contractor, the Contract may be extended for time and money, under all the terms of this Contract, at bid prices for up to (5) additional 1-year periods.

### **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.

For each additional year of the Contract, beyond the initial Contract year, a 2% escalation factor shall be added to the Center Line Mile Unit Price from the Schedule of Items.

Mowing will be paid for at the Unit Cost Payment Rate per acre which is the rate bid and adjusted based on the variance in costs for the diesel fuel component of the work. Rate adjustments will be made upward or downward, as diesel prices increase or decrease. Adjustments will be as determined by the Department as follows:

Base Fuel Price: The base price of diesel fuel is the price per gallon shown as the weekly retail cost of diesel fuel for the U.S. On-Highway Diesel Fuel Prices, New England Subdistrict (PADD1A) found at <https://www.eia.gov/petroleum/gasdiesel/> for the date most immediately preceding the Bid Opening Date.

Period Fuel Price: The period price is the price per gallon shown as the weekly retail cost of diesel fuel for the U.S. On-Highway Diesel Fuel Prices, New England Subdistrict (PADD1A) found at <https://www.eia.gov/petroleum/gasdiesel/> for the date most immediately preceding the adjustment period dates of March 20 and August 1 of each year.

Base Unit Cost Rate: The Base Unit Cost Rate shall be the unit cost per acre bid.

Period Unit Cost Rate: The Period Unit Cost Rate is the rate bid and adjusted in accordance with the chart below.

Difference between Base Fuel Price and Period Fuel Price	Adjustment to Base Unit Cost Rate to get Period Unit Cost Rate
Increase of \$0.00 – \$0.49	No change
Increase of \$0.50 – \$1.49	Increase 2%
Increase of \$1.50 – \$2.49	Increase 4%
Increase of \$2.50 – \$3.49	Increase 6%
Decrease of \$0.00 – \$0.99	No change
Decrease of \$1.00 – \$1.99	Decrease 2%
Decrease of \$2.00 – \$2.99	Decrease 4%
Decrease of \$3.00 or more	Decrease 6%

Adjustment Period: The Period Unit Payment Rates will become effective on the second Saturday after the Adjustment period dates of March 20 and August 1 of each year and will remain in effect until the next period adjustment.

Mobilization to and from the jobsite will not be paid separately and will be considered incidental to the base rental rate.

**D. Contract.**

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents, Standard Specifications, March 2020 Edition, Standard Details March 2020 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, and Contract Agreement. 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 March 2020 Edition, Standard Details March 2020 Edition as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement contained herein for completion of: **Controlled Access Highway and Interstate Mowing Including Litter Removal in Region 2 and 4, in the counties of Kennebec, Sagadahoc, Waldo, Somerset, and Penobscot, 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 tools, equipment and labor to complete 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 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 Region, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, March 2020 Edition, and as addressed in the contract documents.

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

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

Fourth: 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

**(Print Date here)** \_\_\_\_\_ **(Sign Here)** \_\_\_\_\_  
Date (Signature of Legally Authorized Representative  
of the Contractor)

**(Witness Sign Here)** \_\_\_\_\_ **(Print Name Here)** \_\_\_\_\_  
Witness (Name and Title Printed)

**G. Award.**

Your offer is hereby accepted for (see checked boxes):

Region 2

Section 1

Section 2

Region 4

Section 1

Section 2

Section 3

The original contract amount is: \$ \_\_\_\_\_

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

MAINE DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Date

\_\_\_\_\_  
By: Kyle Hall  
Director  
Bureau of Maintenance & Operations

**SPECIAL PROVISION**  
**SECTIONS 102 BIDDING**  
**& 103 AWARD & CONTRACTING**  
**(Basis of Award)**

Bidders may bid one or more Region/Area in accordance. For each Area bid, Bidders are required to bid all pieces of items in that section. Each Region/Area will be awarded separately.

NOTICE TO CONTRACTORS - PREFERRED EMPLOYEES

Sec. 1303. Public Works; minimum wage

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

**SPECIAL PROVISION**  
**SECTIONS 102 BIDDING**  
**& 103 AWARD & CONTRACTING**  
**(Basis of Award)**

Bidders may bid one or more Region/Area in accordance. For each Area bid, Bidders are required to bid all pieces of items in that section. Each Region/Area will be awarded separately.

**SPECIAL PROVISION**  
**SECTION 107**  
**Time**  
**(Contract Time)**

The specified Contract Completion Date is **October 31, 2023**. All Work must be Complete by the Contract Completion Date specified in the Contract, and any authorized extensions.

At the Department's discretion and upon mutual agreement with the Contractor the Contract may be extended for time and money, under all terms of the Contract up to five (5) additional one-year periods. The determination to extend the Contract will be made by March 1 of each year if the Contract is to be extended for the upcoming year. The Contract will not extend beyond **March 31, 2029**.

The Contractor will be allowed to commence work 15 minutes after sunrise and shall be completely off the road 15 minutes before sunset. Sunrise and sunset will be determined according to the Sunrise/Sunset Table at <http://www.sunrisesunset.com/usa/Maine/>. If the project town is not listed, the closest town on the list will be used as agreed.

Night work will not be allowed on this project.

Work can be performed any days except Sundays and Holidays, unless expressly specified otherwise in this Contract. If a Holiday occurs on a Sunday, the following Monday shall be considered a Holiday. The Contractor may work on Patriot's Day, Juneteenth, and Indigenous Peoples Day without the Department's approval. The Department may modify the Contract if work will not be allowed on a specified days due to special events affecting traffic and the Contract time will be extended by the same number of Calendar Days.

Completion of Physical Work occurs when the Work is complete and has undergone a successful final inspection.

Mowing shall be done in accordance with the start and end dates set forth in the SPECIAL PROVISION, WORK SCHEDULE of the Contract.

SPECIAL PROVISION  
WORK SCHEDULE

The purpose of this Work Schedule is to outline the Work in order of how it is to be accomplished. This Work Schedule includes time frames within which the Work shall be done. All Work outlined below includes interchange areas and interchange ramps.

**Work outlined in this Work Schedule shall begin within 10 days of the start date or Contract Award whichever is later. Once Work on a Work Item begins the Contractor shall remain in the Area until all Work outlined in the Work Item is completed.**

**REGION 2, AREA 1**

<b>Work - Item 1</b> <u>Initial Litter Removal</u>	The start date for Litter Removal is <u>the second Monday of April</u> each year, with Region 2 management approval. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. Litter removal shall be completed no later than <u>the fourth Friday of May</u> each year.
<b>Work - Item 2</b> <u>Mow 15-foot swath</u>	The start date for mowing the 15-foot swath is the <u>first Monday in June</u> each year. Mowing shall begin at the Kennebec River in the Town of Fairfield and continue to the southern extent of exit 109 in Augusta. Mowing includes a portion of Route 3 from I-95 to Church Hill Road. Mowing shall be completed no later than <u>Friday of the third full week of June</u> each year.
<b>Work - Item 3</b> <u>Mow all Inslopes and Backslopes</u>	The start date for Inslope and Backslope Mowing is <u>the first Monday of August</u> each year. Mowing shall begin at the Kennebec River in the Town of Fairfield and continue to the southern extent of exit 109 in Augusta. Mowing includes a portion of Route 3 from I-95 to Church Hill Road. All Inslopes and Backslopes shall be mowed including all interchanges and interchange ramps. Mowing shall proceed south in 10-mile blocks to include both NB and SB sides. All interchange Inslopes and Backslopes within each 10-mile block shall be mowed. The Contractor shall notify the Region prior to completing the mowing in each 10-mile block to allow for inspection and acceptance prior to beginning the next 10-mile section. Mowing shall be completed no later than <u>the second Friday of October</u> each year.

**See Schedule of Items for Region 2, Area 1 for details regarding location and acreage**

**REGION 2, AREA 2**

<p><b>Work - Item 1</b>  <u>Initial Litter Removal</u></p>	<p>The start date for Litter Removal is <u>the second Monday of April</u> each year, with Region 2 management approval. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. Litter removal shall be completed no later than <u>the fourth Friday of May</u> each year.</p>
<p><b>Work - Item 2</b>  <u>Mow 15-foot swath</u></p>	<p>The start date for mowing the 15-foot swath is the <u>first Monday in June</u> each year. Mow a 15-foot swath from the pavement of Interstate 295 to include all ramps, interchange areas and medians starting from The West Gardiner Tollbooth to the Bowdoinham Interchange, exit 37, including the ramps on the south side of exit 37. Mowing shall be completed no later than the <u>fourth Friday in June</u>, each year.</p>
<p><b>Work - Item 3</b>  <u>Mow all Inslopes and Backslopes</u></p>	<p>The start date for Inslope and Backslope Mowing is <u>the first Monday of August</u> each year. Mow all Inslopes, Backslopes and median to the existing tree line or right-of-way fence of Interstate 295 to include all ramps and interchange areas, starting from The West Gardiner Tollbooth to the Bowdoinham Interchange, exit 37, including the ramps on the south side of exit 37. Mowing shall be completed no later than <u>the second Friday of October</u> each year.</p>

**See Schedule of Items for Region 2, Area 2 for details regarding location and acreage**

**REGION 4, AREA 1**

<p><b>Work - Item 1</b>  <u>Initial Litter Removal</u></p>	<p>The start date for Litter Removal is <u>the second Monday of April</u> each year, with Region 4 management approval. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. Litter removal shall be completed no later than <u>the fourth Friday of May</u> each year.</p>
<p><b>Work - Item 2</b>  <u>Mow 15-foot swath</u></p>	<p>The start date for mowing the 15-foot swath is <u>the first Monday in June</u> each year. Mowing is from the crossover at mile 178.9 to the Kennebec River in the Town of Benton. Mowing shall be completed no later than <u>Friday of the third full week of June</u> each year.</p>
<p><b>Work - Item 3</b>  <u>Mow all Inslopes and Backslopes</u></p>	<p>The start date for Inslope and Backslope Mowing is <u>the first Monday of August</u> each year. Mowing shall begin at the crossover at mile 178.9, south of exit 180. All Inslopes and Backslopes shall be mowed including all interchanges and interchange ramps. Mowing shall proceed south in 10-mile blocks to include both NB and SB sides. All interchange Inslopes and Backslopes within each 10-mile block shall be mowed. The Contractor shall notify the Region prior to completing the mowing in each 10-mile block to allow for inspection and acceptance prior to beginning the next 10-mile section. Mowing shall be completed no later than <u>the second Friday of October</u> each year.</p>

**See Schedule of Items for Region 4, Area 1 for details regarding location and acreage**

**REGION 4, AREA 2**

<b>Work - Item 1</b> <u>Initial Litter Removal</u>	The start date for Litter Removal is <u>the second Monday of April</u> each year, with Region 4 management approval. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. Litter removal shall be completed no later than <u>the fourth Friday of May</u> each year.
<b>Work - Item 2</b> <u>First Inslope Mowing Bangor Area</u>	The start date for First Inslope Mowing Bangor Area is <u>the first Monday of the second full week of May</u> each year. Mowing shall be limited to Inslopes and interchange ramp Inslopes. Mowing shall be completed no later than <u>the fourth Friday of May</u> each year.
<b>Work - Item 3</b> <u>First Inslope Mowing North of Bangor</u>	The start date for First Inslope Mowing North of Bangor is <u>the first Monday of the third full week of May</u> each year. Mowing shall be limited to Inslopes and interchange ramp Inslopes. Mowing shall be completed no later than <u>the second Friday of June</u> each year.
<b>Work - Item 4</b> <u>Inslope and Backslope Mowing</u>	The start date for Inslope and Backslope Mowing is <u>the Monday of the second full week of August</u> each year. All Inslopes and Backslopes shall be mowed including all interchanges and interchange ramps. Mowing shall proceed in 10-mile blocks to include both NB and SB sides. All interchange Inslopes within each 10-mile block shall be mowed. The Contractor shall notify the Region prior to completing the mowing in each 10-mile block to allow for inspection and acceptance prior to beginning the next 10-mile section. Mowing shall be completed no later than <u>the second Friday of October</u> each year.

**See Schedule of Items for Region 4, Area 2 for details regarding location and acreage**

**REGION 4, AREA 3**

<p><b>Work - Item 1</b> <u>Initial Litter Removal</u></p>	<p>The start date for Initial Litter Removal is <u>the second Monday of April</u> each year, with Region 4 management approval. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. Litter removal shall be completed no later than <u>the fourth Friday of May</u> each year.</p>
<p><b>Work - Item 2</b> <u>Inslope and Backslope Mowing</u></p>	<p>The start date for Inslope and Backslope Mowing is <u>the Monday of the second full week of August</u> each year. All Inslopes and Backslopes shall be mowed including all interchanges and interchange ramps. Mowing shall proceed north in 10-mile blocks to include both NB and SB sides. All interchange Inslopes and Backslopes within each 10-mile block shall be mowed. The Contractor shall notify the Region prior to completing the mowing in each 10-mile block to allow for inspection and acceptance prior to beginning the next 10-mile section. Mowing shall be completed no later than <u>the second Friday of October</u> each year.</p>

**See Schedule of Items for Region 4, Area 3 for details regarding location and acreage**

**REGION 5**

<p><b>Work - Item 1</b> Initial Litter Removal</p>	<p>The start date for Litter Removal is <u>the third Monday in April</u> each year. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. Litter removal shall be completed no later than <u>the fourth Friday of May</u> each year.</p>
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**See Schedule of Items for Region 4, Area 3 for details regarding location and acreage**

## SPECIAL PROVISION SPECIFICATIONS FOR WORK

### **I. Scope of Work:**

The Work includes mowing grasses, herbaceous plants, and small woody plants up to 1” in diameter in all mow areas.

The Contractor shall provide a primary contact responsible for communication with the Region contact. The Contractor shall be responsible for quality control of their laborers. The Region will provide a primary contact responsible for administering the Contract in the Region. This primary Department contact will be responsible for periodic review of the Work. The Department may provide maps, kmz files, graph paper representations or other means available to aid the Contractor with Work. The Department and the Contractor may review the Work periodically in the field to discuss and review the quality and acceptability of Work, Contractor’s Schedule of Work, Contractor’s Traffic Control, resolution of issues and disputes, and any other action items .

A Contract Administrator will be designated at the beginning of the season. The Contract Administrator will be responsible for managing Progress Payments, retainage, and calculation of payments. The Contract Administrator shall be the Department's representative during the season for this Contract. The Contract Administrator has authority to curtail Work if necessary to ensure proper execution of the Contract, to take actions needed to assure that the Contractor’s Work conforms with the Contract, to decide questions regarding quality and acceptability of Work, to suspend Work, to reject Unacceptable or Unauthorized Work and to refuse to approve Progress and Final Payments until Unacceptable or Unauthorized Work is corrected. The Contract Administrator shall certify to the Department when payments under the Contract are due and the amounts to be paid. He/she shall make decisions on all claims of the Contractor. Unless authorized by the Contract Administrator, other Departmental employees are not authorized to alter or waive the provisions of the Contract or to issue instructions contrary to the Contract. The Department may assign a designated alternate to the Contract Administrator. The Contractor will be notified of any such change.

All progress reports, correspondence and related submissions from the Contractor shall be submitted to the Department’s Project Manager who is designated as the Contract Administrator on behalf of the Department for this Contract, except where specified otherwise in this Contract.

The Contractor and the Department shall have a pre-season meeting at the Region Office to review policies, procedures, and regulations.

### **II: Definitions:**

- A. **Inslope:** Inslopes shall consist of the vegetated area starting at the edge of pavement and extending perpendicular to the bottom of the ditch, an area of significant grade change, or the woods line, generally excluding slopes behind guardrail sections.

- B. **Backslope:** Backslopes shall start where the Inslope ends and continue until the woods line, seedling delineators, within 10' of the right-of-way fence, or 100 feet from the edge of the roadway pavement. Slopes of 2:1 (Horizontal: Vertical) or steeper shall not be mowed.
- C. **Litter:** Includes, but is not limited to, paper, cardboard, styrofoam, plastic, cloth, wire, steel bands, cable, garbage bags, tire tread, car parts, pallets, sheet metal, furniture, etc., over 4" inches in length in any dimension as may be found on the roadside. When mowing, litter in the path of the mower shall be picked up or moved to the side of the road for retrieval. Such litter shall be removed from the interstate each day and properly disposed.
- D. **Interstate Litter Removal:** In Regions with Litter Removal as part of the Contract, all litter/trash shall be picked up ahead of the first mowing. Litter shall be removed from all Inslopes and Backslopes. All Litter gathered each day shall be removed from the Interstate each day and properly disposed of. Litter shall be removed up to the woods edge and any visible litter in the woods shall also be removed. If Contractor personnel are observed throwing litter into the woods or are observed trying to hide litter from sight rather than removing it from the interstate such action shall be grounds for Contract termination.

### **III. Measurement and Payment:**

The Department will pay for each Item annually following the completion of Physical Work and acceptance of each Item for the year.

Items completed and accepted each year shall be paid for at the Quantity shown in the Schedule of Items except when the Department increases or decreases the area specified to be mowed from that described in the Contract or the Department determines that not all Work specified to be performed under an item was performed by the Contractor and accepted by the Department.

The Contractor shall notify the Contract Administrator when, in their estimation, the Physical Work on an Item in the Schedule of Items is completed for the year. The Contract Administrator will determine if the Item will be accepted for payment for the year or if there are outstanding issues such as damages or areas that are not mowed.

Following the Contractor notice of completion of annual Physical Work on an Item, the Contract Administrator will generate a Progress Payment to be made to the Contractor for the Item. Such payment voucher shall show, the computed payment, the Base Quantity, any adjustments to the Base Quantity, Item Unit Bid Price, annual escalator adjustment, deductions for retainage and any other information the Department chooses. Areas not mowed, will be deducted from the Base Quantity, whether the areas are in dispute or not. No such payment will be made if in the opinion of the Department, the Work is not proceeding in accordance with the Contract or the Physical Work performed is insufficient to warrant acceptance and payment.

The Department will deduct retainage in accordance with Standard Specification 108.3 Retainage.

The Department will pay 100% of each approved Progress Payment until the Work is approximately 50% complete. Thereafter, the Department will deduct 5% of the amount of each Progress Payment as retainage. In the event that the Department believes that the retainage will

be insufficient to cover the Contractor's obligations under this Contract, the Department may withhold a greater percentage of the money to cover Contractor obligations.

The Contractor shall be responsible for all damage to existing structures, guardrail, drainage ways and/or slopes resulting from any act, omission, neglect, or misconduct of the Contractor. The Contractor shall, at its sole expense, rebuild, repair, restore, or replace such damaged property or otherwise make any good losses that arise from such damage ("rebuilding, etc."). If the Contractor fails to complete such rebuilding in a timely manner, the Department may commence rebuilding, etc. of the damaged property without liability to the Department with its own forces or with Contracted forces, and all costs will be deducted from amounts otherwise due the Contractor.

The Department may hold retainage as needed to assure payment of all Subcontractors and Suppliers in Conformity with the Contract and to assure rebuilding, etc of damage to existing structures, guardrail, drainage ways and/or slopes.

If the Contractor picks litter in additional acres not designated for mowing, the Department will only pay for the quantity designated in the Schedule of Items. If the Department adds acres to an Item, not included in the original Contract, the Department will modify the Contract in writing to increase the quantity.

#### **IV. Specifications for Mowing Equipment**

Tractors shall be of sufficient size and horsepower to provide efficient, effective, and safe mowing of the acres set forth in the Contract and within the time frame outlined in the Mowing Cycle Table. The Department reserves the right to inspect and reject equipment that cannot perform the Work efficiently, effectively, or safely.

Tractors shall be 4 x 4-wheel-drive with slow moving vehicle placard plainly visible from the rear, equipped with seat belt, working factory installed roll over protection, slope indicator/s, shields, warning signs, and guards in place, back up alarm, and an ABC type fire extinguisher (minimum 5 lbs.).

A minimum of two tractors are required to be in operation within an Area. More tractors may be required to accomplish Work within desired periods.

Tractors shall be equipped with at least one high intensity rotating or strobe light plainly visible from all sides. The lens shall be clear amber glass. The bulb shall be a minimum of 1,000,000 candlepower. The light ray shall sweep at a rate of 60 flashes per minute over a 360-degree area. Strobe lights shall be in operation continuously while tractor is mowing.

Tractors shall meet all OSHA standards, be registered for highway operation, and the Contractor shall provide insurance requirements in accordance with Section 110 of the Standard Specifications.

Tractor operators shall have a valid driver's license in their possession.

Contractors may deploy other mowers (**off road mowers**) such as but not limited to walk behind, remote control, or track vehicles to mow areas such as backslopes or ramps difficult to navigate with larger tractors. The Department reserves the right to inspect and reject equipment that cannot perform the Work efficiently, effectively, or safely.

Off road mowers shall not be operated within 30 feet of the high-speed travel way.

Operators of tractors and off-road mowers shall wear all appropriate safety equipment for safe operation including but limited to hard hats, hearing and eye protection, long pants, steel toed boots, and reflective vests.

Off road mowers must be loaded and unloaded off road and on site. These mowers may not be operated or driven on the highway or along the inslope within 30 feet of the travel way.

Oil changes, fueling and repair work except for emergencies shall be done in the crossovers. Spill kits are required and must include a plastic tarp, plastic bags and absorbent pads and socks at minimum. Plastic tarps shall be spread to capture oil during maintenance.

Equipment requiring frequent repairs shall be defined as both tractors requiring repairs for more than five (5) working days (or any part thereof) within a 30-day period, or one tractor requiring repairs for more than 10 working days within a 30-day period. For equipment requiring frequent repairs the Contractor shall perform repairs to reduce repetitive breakdowns or may furnish an acceptable, equivalent replacement. In the case of delayed maintenance that affects performance, or if a piece of equipment is unable to run, is unsafe to operate or should not be run as determined by the MaineDOT, the Contractor shall repair the equipment promptly, or replace the equipment with another acceptable, equivalent unit. Failure to take acceptable corrective action may result in the MaineDOT or another Contractor performing all or part of the Work.

## **V. Requirements of Operation**

No travel on breakdown lane of highway except when mowing around delineators, signs or other obstacles located directly adjacent to pavement, or when traveling to get to work area, at overpasses, culvert locations, bridges, and guardrail locations where slope is too steep to navigate.

Mow swath closest to road, either side, in direction of traffic flow.

Mow in swaths parallel to roadway. Multiple passes may be required to achieve the desired result.

The Contractor shall mow or remove vegetation on all sides of obstructions, such as sign supports, delineators, guard posts, utility poles, piers, abutments, structures and landscaping (trees, shrubs, etc) that may be within the designated mowing areas. The Contractor may choose to weed whack vegetation on all sides of such obstructions and is allowed to cut to ground to discourage re-growth during the growing season. Removing vegetation around obstructions regardless of method shall be incidental to the Contract.

When not mowing, travel from one area to another shall be on the right shoulder of the

highway.

All travel must be in **same direction** as flow of traffic.

Vegetation in designated mowing areas shall be cut to a height of four (4) to five (5) inches.

Grass clippings may stay on site where they fall.

Stopping on pavement **is prohibited** except for setting up work zone signs or in emergencies.

Tractors, vehicles, and other equipment left unattended or overnight shall be in crossovers parked off the paved section to allow full access for emergency, police, or other vehicles.

All Work included in this Contract shall be performed during the daylight hours specified in Special Provision Section 107, Contract Time.

All required traffic control, including signs, sign deployment/removal shall be incidental to the Contract.

The Contractor shall contact the Region office by e-mail prior to the beginning of Work each day to notify the location the Contractor will be working. The Department will provide a list of e-mail addresses. Any damage to existing structures, guardrail, drainage ways and/or slopes caused by the contractor's equipment, personnel or operation shall be reported to the Region by e-mail as soon as possible.

## **VI. Mower decks**

Flail or disk mower decks shall be used for all inslope mowing. Rotary, flail, or disk mowers may be used to mow backslopes.

The Department reserves the right to inspect and reject equipment that cannot perform the Work efficiently, effectively, or safely.

Contractors may request use of alternate equipment for the purpose of mowing ditches or wood edges subject to Department approval.

Mower decks shall be capable of cutting brush up to 1 inch in diameter at ground elevation.

## **VII. Signs**

Signs shall be set with the bottom of the sign at least 1 foot above the travel way and placed no more than two miles from active mowing.

Signs shall be placed no more than 2 miles from active mowing.

Two Signs shall be in place, on on either side of the roadway, prior to Work commencing.

When Work involves being on both sides of the interstate or divided highway or in the median of same within a 2-mile area, signs must be in place on both sides of the highway system e.g.-Northbound Southbound.

When mowing on controlled access highways with no median, signs shall be placed no more than 2 miles from active mowing on both sides of the highway in accordance with the MUTCD standard.

Signs shall conform to the requirements of Part VI of the latest edition of MUTCD, and NCHRP 350 guidelines, super high intensity fluorescent retro reflective sheeting to the performance requirements of ASTM D 4956-09 Type VI fluorescent material (roll up style).

Sign Legends shall be covered or turned from view when work is not in progress.

Signs for Litter Removal shall be 4 feet by 4 feet signs with 6-inch letters stating ROAD WORK AHEAD.

Signs for mowing shall be 4 feet by 4 feet with 6-inch letters stating MOWING AHEAD.

### **VIII. Litter Removal Prior to First Mowing Cycle**

Contractors may use 4 or 6-wheel, off -road (all wheel or 4-wheel drive) utility vehicles with cargo beds during the Initial Litter Removal prior to the first Mowing Cycle.

3 or 4-wheel off road ATVs are prohibited from use for litter removal operations.

4 or 6-wheel off road utility vehicles shall be equipped with: One high intensity rotating or strobe light plainly visible from all sides, Slow moving vehicle placard plainly visible from the rear, a functional seat belt, and working factory installed roll over protection.

# State of Maine

## Department of Transportation

### Memorandum

Bureau of Maintenance and Operations  
Dale Doughty, Director

16 State House Station  
Augusta, Maine 04333-0016

Phone: (207) 624-3600  
Fax: (207) 623-2526

**TO:** All Holders of MDOT Crossover Permits

**DATE:** January 1, 2013

**FROM:** Dale Doughty, Director, Bureau of Maintenance & Operations

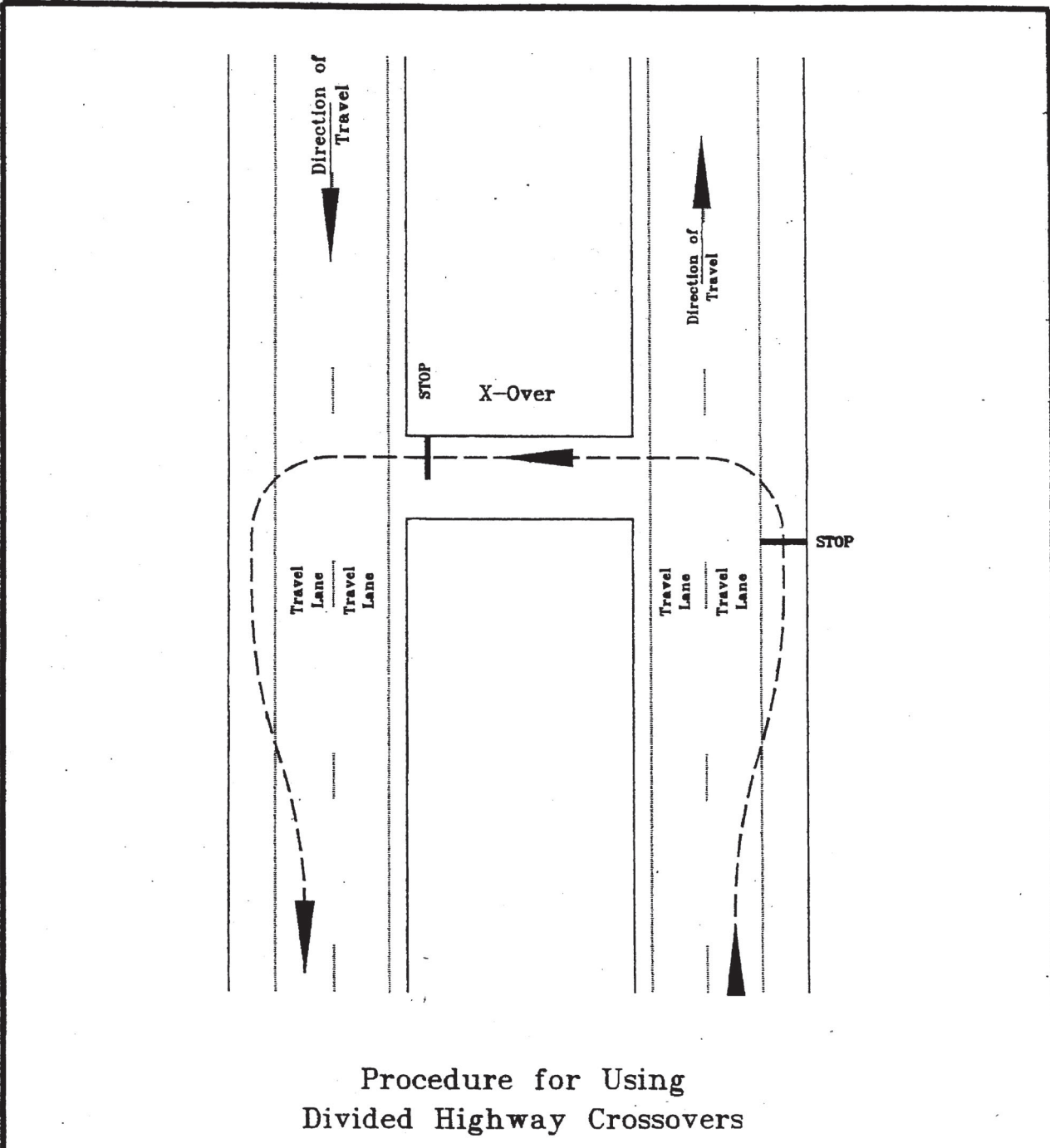
**SUBJECT:** Crossover Procedures – Divided Highways

The following are the procedures to be used by all drivers holding a crossover permit when making a crossover maneuver on a divided highway. These procedures shall be performed by any driver who is not engaged in maintenance or work activity which requires the vehicle to travel in a specific lane or along the shoulder.

1. First priority to reverse direction should be through use of an interchange.
2. If no interchange is within one mile of the desired turn point, a crossover may be used.
3. The driver should pull the vehicle to the right shoulder just in advance of the crossover using all safe driving techniques.
4. When an adequate gap in traffic exists, cross the travel lanes into the crossover, staying to the right side of the crossover.
5. Stop at the mouth of the crossover, wait for an adequate gap in the oncoming traffic and proceed to the far right shoulder across the travel lanes, then accelerate into the normal traffic stream.

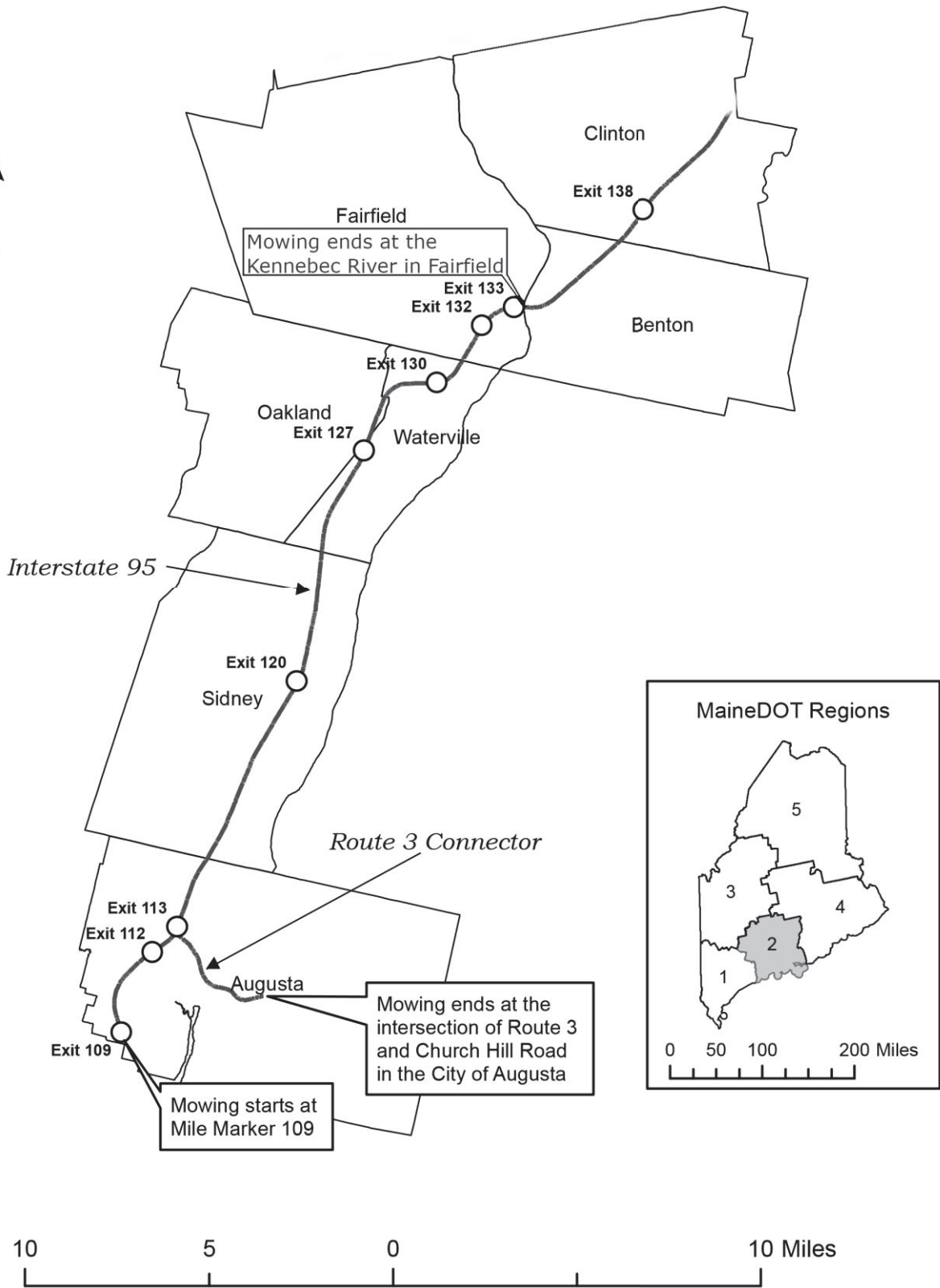
**NOTE:** In some traffic conditions, especially in southern areas of the interstate, interchanges should always be used. Of a question of safety is involved in a desired reverse direction maneuver, then use an interchange.

An example of this maneuver is shown on the attached sketch.

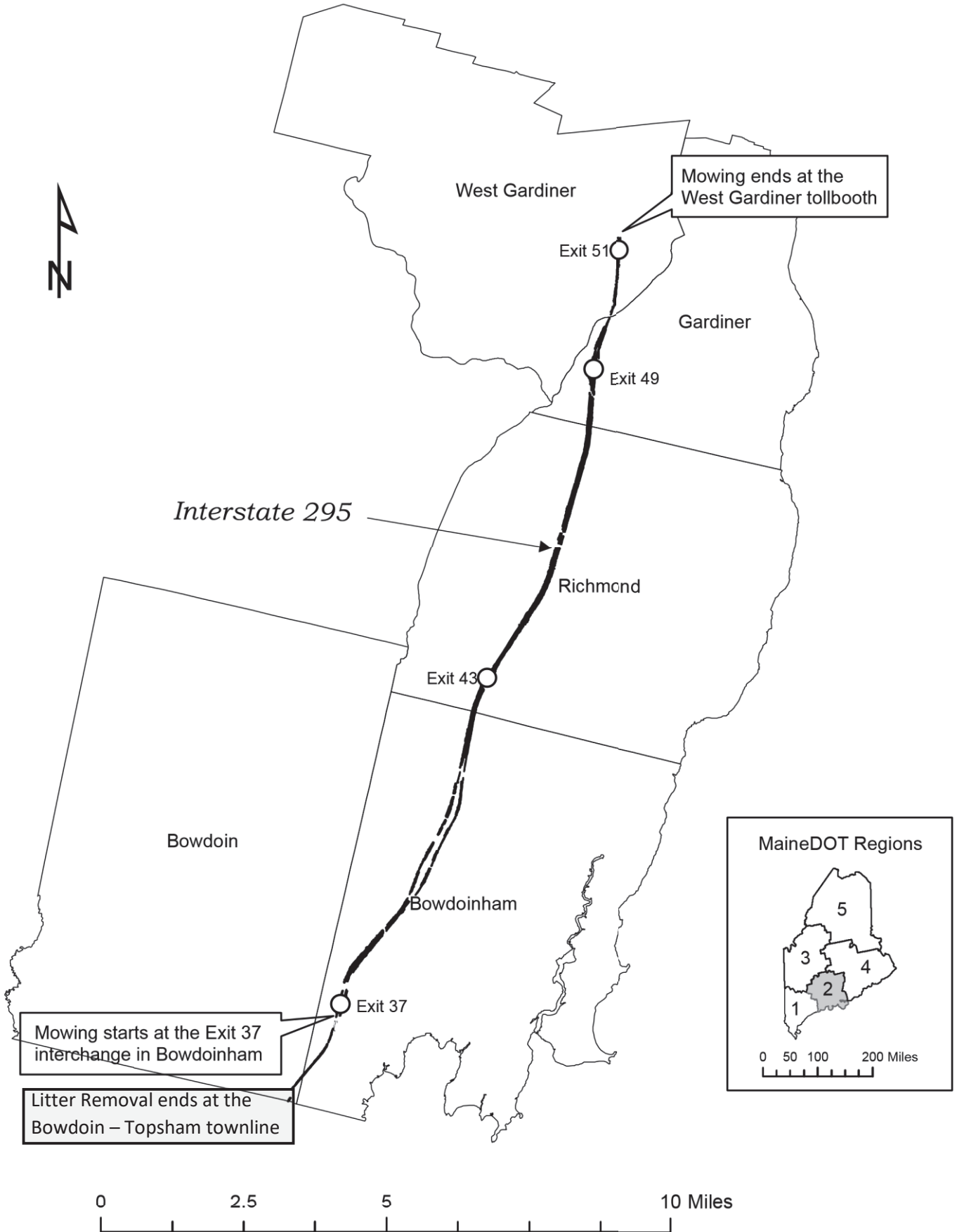


Procedure for Using  
Divided Highway Crossovers

# Extent of mowing in Region 2 Area 1



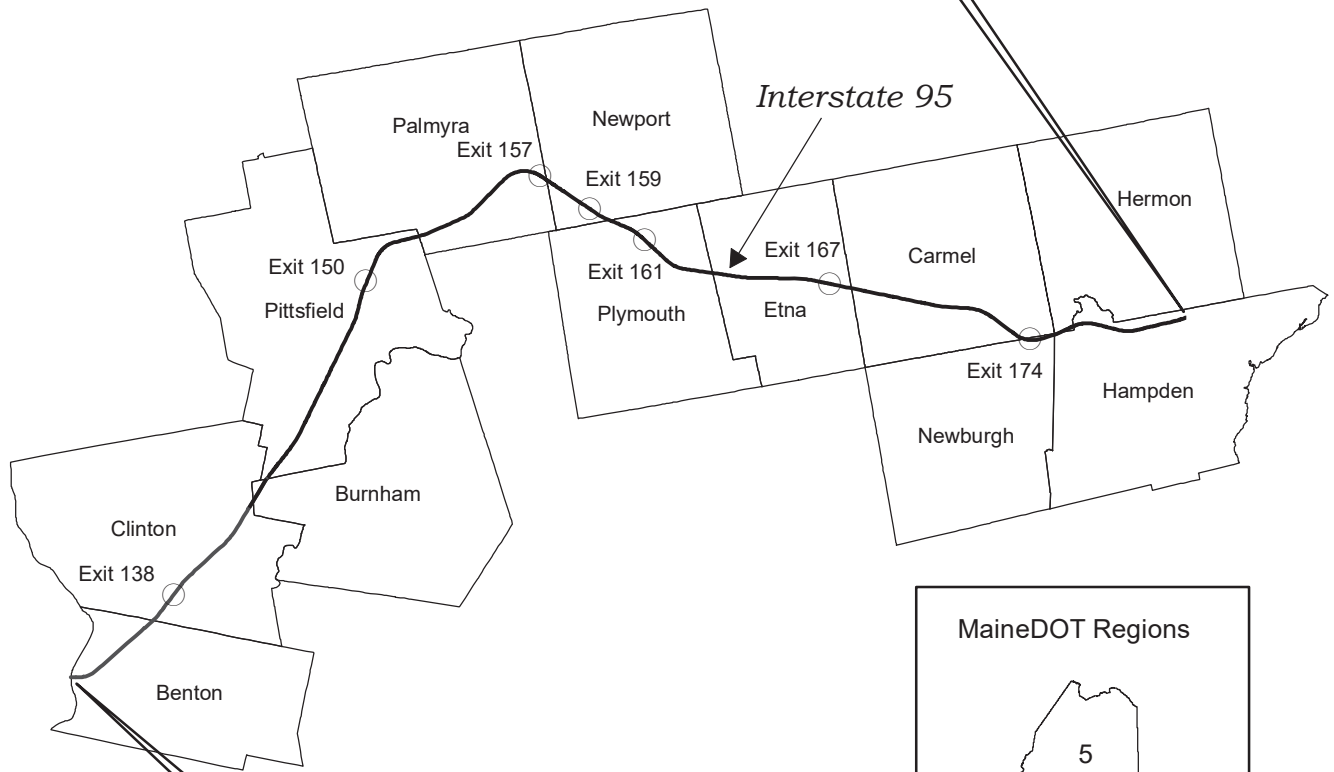
# Extent of Mowing for Region 2 Area 2



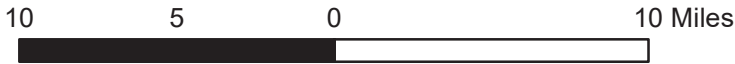
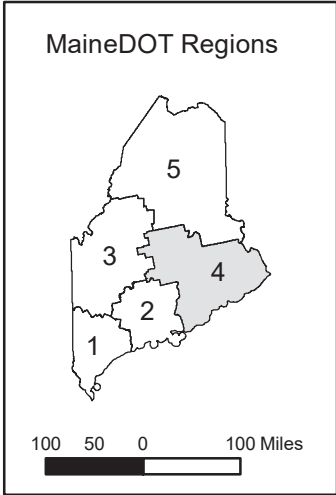
# Extent of Mowing for Region 4, Area 1



Mowing ends at the crossover at Mile 178.9 in the Town of Hampden

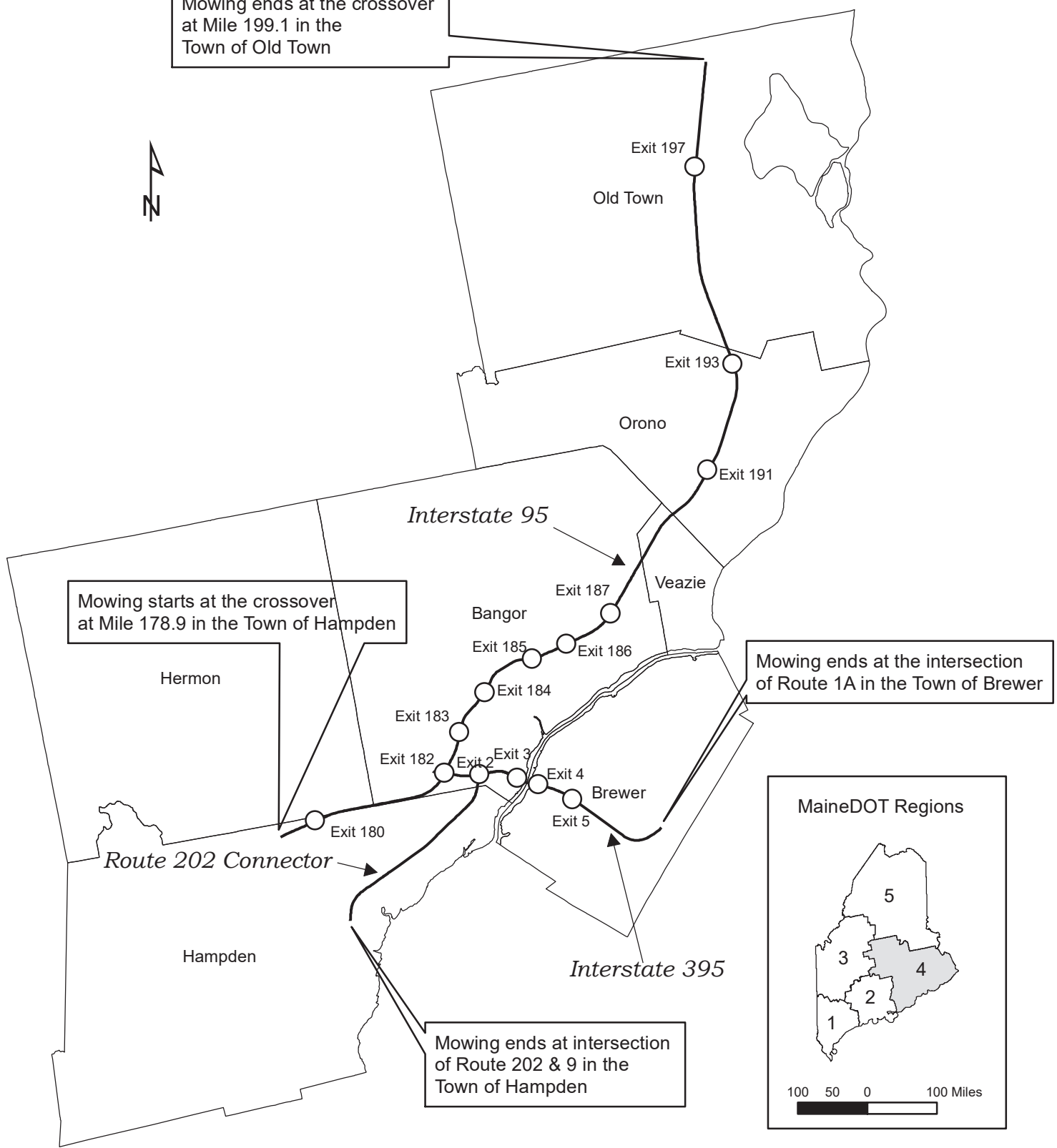


Mowing starts at the Kennebec River in the Town of Benton at Mile 133.8



# Extent of Mowing for Region 4, Area 2

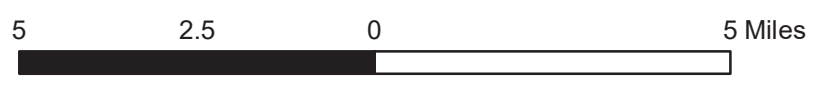
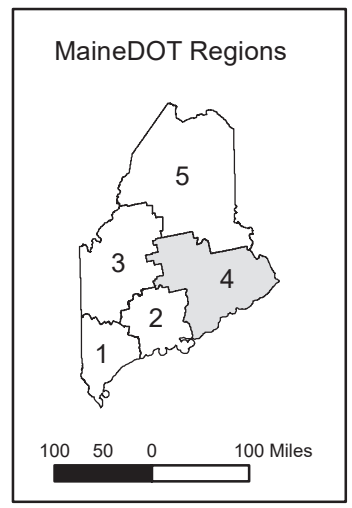
Mowing ends at the crossover at Mile 199.1 in the Town of Old Town



Mowing starts at the crossover at Mile 178.9 in the Town of Hampden

Mowing ends at the intersection of Route 1A in the Town of Brewer

Mowing ends at intersection of Route 202 & 9 in the Town of Hampden



# Extent of Mowing for Region 4, Area 3

Mowing ends at the crossover at Mile 232.3 in Township T2 R8 NWP

T2 R8 NWP  
Exit 227

Mattamiscotis Twp

Howland

Exit 217

Edinburg

Argyle Twp

Alton

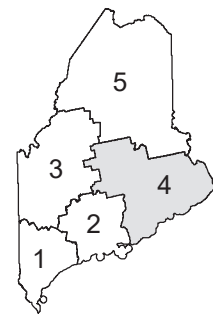
Exit 199

Old Town



Mowing starts at the crossover at Mile 199.1. Exit 199 is just North of the starting location

MaineDOT Regions



100 50 0 100 Miles

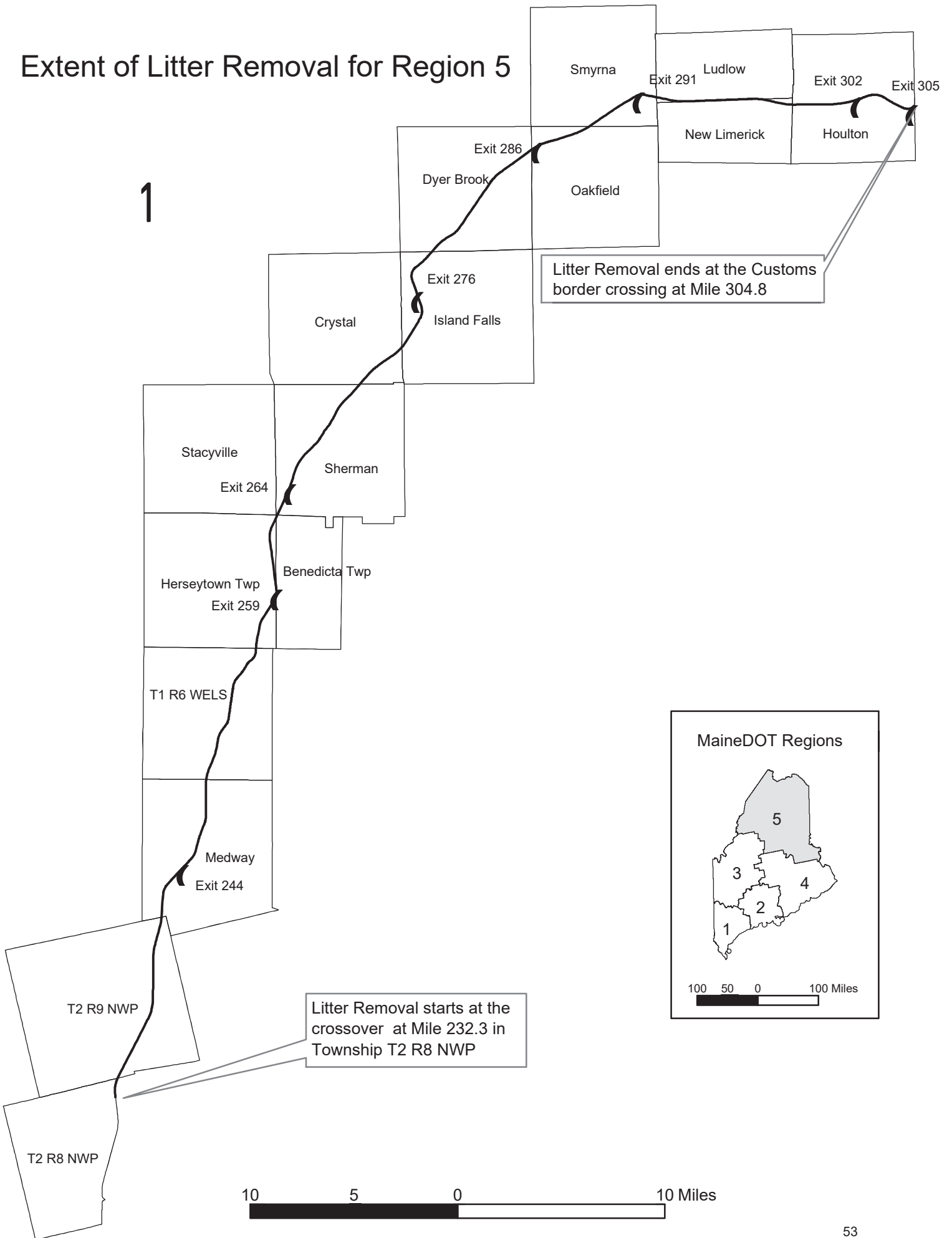


10 5 0 10 Miles



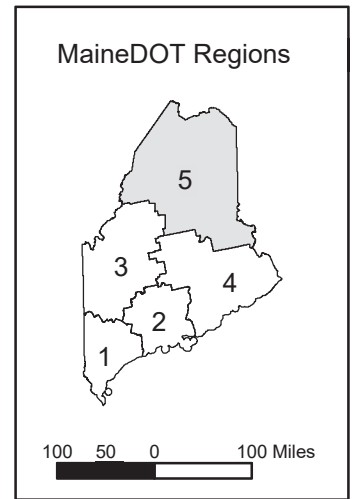
# Extent of Litter Removal for Region 5

1



Litter Removal ends at the Customs border crossing at Mile 304.8

Litter Removal starts at the crossover at Mile 232.3 in Township T2 R8 NWP



SPECIAL PROVISIONS  
ADDITIONS AND REVISIONS TO STANDARD SPECIFICATIONS

SPECIAL PROVISION SECTION 101  
CONTRACT INTERPRETATION

101.2 Definitions Add the following:

MaineDOT The Department of Transportation of the State of Maine, as established by 23 MRSA §4205 et seq. for the administration of Highway, Bridge, and other public Works; acting through the Commissioner and his/her duly authorized representatives.

101.2 Definitions Holidays Amend this paragraph by adding “Juneteenth” between ‘Memorial Day’ and ‘Independence Day’.

SPECIAL PROVISION SECTION 102  
BIDDING

102.6 Bid Guaranty Delete the entire section 102.6.

102.7.1 Location and Time Delete the entire section and replace with the following:

The Bidder must Deliver its Bid and Bid Guaranty in a sealed envelope to the exact location and before the precise time (as determined by the Department) specified in the Notice to Contractors or any applicable Bid Amendment. The sealed envelope must be labeled with the Bidder's name, the Project or Work location, and/or Title, and the words “Bid Enclosed”. As a minimum, the Bidder will submit a Bid Package consisting of the Notice to Contractors, the completed Acknowledgement of Bid Amendments form, the completed Schedule of Items, 2 copies of the completed Contract form, and any other Certifications or Bid Requirements listed in the Bid Book. For a related provision, see Section 102.11 - "Bid Responsiveness".

102.11.1 Non-curable Bid Defects Revise the item on the list of non-curable Bid Defects for which the Department will reject Bids as non-responsive that reads “The Bid is not signed by a duly authorized representative of the Bidder.” by replacing it with the following:

“The Bid is not signed by a duly authorized representative of the Bidder.

- Properly submitted electronic bids meet this requirement.
- Paper bids must include either (1) one or more signed copies of the Contract Agreement form or (2) a signed copy of the Schedule of Items.”

102.11.1 Non-curable Bid Defects Revise this subsection by removing the words “The unit price and bid amount is not provided or a lump sum price is not provided or is illegible as determined by the Department.” and replacing it with the following:

“The unit price and bid amount is not provided if (1) the item quantity is not one or lump sum or, (2) the lump sum contract price is not provided or, (3) the unit price, bid amount or lump sum price is illegible as determined by the Department.”

102.11.2 Curable Bid Defects Revise the section by replacing it with the following:

“Unless the Department waives a curable Bid defect, the Bidder must cure, within the time stated in the written notice by the Department, but not less than 24 hours, all other Bid Defects not listed in Section 102.11.1 - Non-curable Bid Defects that are identified by the Department. Failure to cure such Defects within said time may result in forfeiture of the Bidder’s Bid Guaranty. Upon such failure, the Department may take any action in the best interests of the Department, including those set forth in Section 103.6 - Failure to Fulfill Award Conditions.

Such curable Bid Defects include, but are not limited to, the following.

The Bidder signs only one of the Contract Agreement Offer & Award forms.

Missing total sum of the items provided in the Schedule of Items.

The prices or signatures on the Bid or Bid Guaranty are not in ink or other non-erasable substance.

Failure to acknowledge Receipt and consideration of all Bid Amendments.

The Bid includes only one signed Contract Agreement form.

The Bid does not include a signed Contract Agreement form but does include a signed Schedule of Items.

If a submitted bid contains any additional conditions or alternate bidding language, the Bidder may cure the defect by removing all conditions and alternate language or the Department will reject the bid as non-responsive.

All other Defects that do not create a significant question as to the Bidder’s total Bid amount or the Bidder’s ability to complete the Work within the Contract Time or by the Contract Completion Date as determined by the Department.”

SPECIAL PROVISION SECTION 103  
AWARD AND CONTRACTING

103.1.1 Unit Prices Govern Add the following at the end of the paragraph:

“If the item quantity is one and either a unit price or bid amount is not provided, the unit price or bid amount omitted shall be determined mathematically by the Department.”

103.5 Award Conditions Replace the first paragraph with the following:

The Apparent Successful Bidder must provide and/or perform all of the items listed in this Section 103.5 within 14 Days of Receipt of the Notice of Intent to Award. Unless indicated otherwise, all items must be Delivered to the Department’s Bureau of Maintenance & Operations.

103.5.1 Performance and Payment Bonds Delete the entire section 103.5.1.

103.5.4 Execution of Contract By Bidder Delete the entire section and replace with the following:

“The properly completed and signed Contract form provided with the Bid constitutes the Bidder’s offer. Once the Department has received insurance, and any other pre-award items required, the Department will sign and execute the Contract. The point of Contract execution is when the Contractor receives written notice that the contract has been signed by the Department and executed.”

SPECIAL PROVISION SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES

104.3.8A. Federal Wage Rates and Labor Laws Delete the entire section 104.3.8A. Federal Wage Rates do not apply to this work.

104.3.8B State Wage Rates and Labor Laws Delete the entire section 104.3.8B.

104.4.3 Progress Meetings Delete the entire section 104.4.3.

SPECIAL PROVISION SECTION 105  
GENERAL SCOPE OF WORK

105.2.2 Health and Safety Plan Delete the entire section and replace with the following:

The Contractor has the authority and responsibility to ensure compliance with all applicable federal, State, and local laws governing safety, health, and sanitation including all applicable laws and regulations of OSHA. The Contractor shall comply with these laws and regulations and ensure compliance by its subcontractors.”

SPECIAL PROVISION SECTION 105  
GENERAL SCOPE OF WORK

105.10.2 Requirements Applicable to All Contracts Under section A, number 2, in the first sentence of the first paragraph, revise this Section by replacing the word “handicap” in two places with the word “disability” so it now reads:

“2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, State that all qualified applicants will receive consideration for employment without regard to race, color, sexual orientation, religious creed, sex, national origin, ancestry, age, physical disability, or mental disability.”

SPECIAL PROVISION SECTION 107  
TIME

Delete the entire section 107.4 and replace with the following:

107.4.1 General Duty of Contractor The Contractor is solely responsible for the planning and execution of Work in order to complete the Work within the Contract Time.

SPECIAL PROVISION SECTION 110  
INDEMNIFICATION, BONDING AND INSURANCE

110.3.9 Administrative & General Provisions Amend this subsection by adding “Automobile Liability” under letter A) Additional Insured to the list of exceptions.

SPECIAL PROVISION SECTION 112  
DEFAULT AND TERMINATION

Default and Termination The Contractor is in Default of the Contract if the Contractor:

- A. Fails to provide labor, Equipment or Materials specified in the Contract,
- B. Fails to perform the Work with sufficient labor, Equipment, or Materials to assure the timely Completion of the Work,
- C. Fails to perform Work when specified in the Contract.
- D. Performs Defective Work, neglects or refuses to repair or correct Unacceptable Work when directed by the Department;
- E. In any other manner, fails to perform the Work in Substantial Conformity with any material provision of the Contract.
- F. Discontinues the prosecution of the Work without Departmental approval,
- G. Continues to perform Work after the Department directs that Work be stopped,
- H. Fails to resume Work which has been suspended as required by the Contract,

- J. Becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency that could affect the Work in any way,
- I. Allows any final judgment to stand against the Contractor unsatisfied for a period of ten Days,
- K. Makes an assignment for the benefit of creditors without authorization by the Department, or
- L. In any other manner, fails to perform the Work in Substantial Conformity with any material provision of the Contract.

Failure by the Contractor to perform the Work when required or to substantially meet other contractual requirements will result in the following actions:

- 1<sup>st</sup> Incident: If the Contractor does not take corrective action within **two** days upon receipt of verbal warning, the Department will issue a written warning.
- 2<sup>nd</sup> Incident: The Department will issue a written warning.
- 3<sup>rd</sup> Incident: The Department may (A) give written Notice of Default to the Contractor and immediately terminate the Contract by written Notice of Termination, or (B) take prosecution of the Work away from the Contractor without violating the Contract.

If Default occurs, the Department may give written Notice of Default to the Contractor. Failure to give Notice of Default is in no way a waiver by the Department of any provision of the Contract. In this event, the Department may enter into an Agreement with another entity for the Completion of the Work, or use such other methods as in the opinion of the Department are required for the Completion of the intent of the Contract in an acceptable and timely manner. Termination of the Contract or portion thereof shall not relieve the Contractor of its Contractual responsibilities for the Work completed (including warranty obligations), nor shall it relieve the Surety of its obligation for claims arising from the Work or the Contract. The Department will pay for all Accepted items of Work as of the date of Termination at agreed upon prices. The Contractor shall make all Work records available to the Department upon request regarding payment under this Section.

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

SECTION 101  
CONTRACT INTERPRETATION

101.2 Definitions

Holidays Amend this paragraph by adding “**Juneteenth**” between ‘Memorial Day’ and ‘Independence Day’.

Plans Revise this paragraph by removing “**Standard Details, Supplemental Standard Details**” from the first sentence.

SECTION 102  
BIDDING

102.11 Bid Responsiveness Revise the paragraph that states “The Bid is not signed by a duly authorized representative of the Bidder.” So that it reads:

**“The Bid is not signed by a duly authorized representative of the Bidder.**

- **Properly submitted electronic bids meet this requirement.**
- **Paper bids must include at least one signed copy of the Contract Agreement Offer & Award form.”**

SECTION 104  
GENERAL RIGHTS AND RESPONSIBILITIES

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

SECTION 105  
GENERAL SCOPE OF WORK

105.10.2 Requirements Applicable to All Contracts Under section A, number 2, in the first sentence of the first paragraph, revise this Section by replacing the word “handicap” in two places with the word “disability” so it now reads:

**“2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, State that all qualified applicants will receive consideration for employment without regard to race, color, sexual orientation, religious creed, sex, national origin, ancestry, age, physical disability, or mental disability.”**

SECTION 106  
QUALITY

106.6 Acceptance Revise this Subsection by replacing the paragraph beginning with “Acceptance of Hot Mix Asphalt Pavement will be based” with:

**“Acceptance of Hot Mix Asphalt Pavement will be based on Method A or C Statistical Acceptance, or Method B or D Acceptance as specified. The method of acceptance for each item is defined in Special Provision, Section 403, Hot Mix Asphalt Pavement. When items of Hot Mix Asphalt Pavement are not so designated, Method A will be utilized whenever there are more than 1000 tons per Hot Mix Asphalt Pavement item, and Method B will be utilized when there are less than or equal to 1000 tons per Hot Mix Asphalt Pavement item.”**

Revise Subsection “B” by removing it and replacing it with:

**“B. Items not designated for Statistical Acceptance will utilize Method B or D Acceptance testing to validate the quality of the material incorporated into the Project. For material paid under Item 403.209 – Method D, or designated to be visually accepted, the Contractor shall provide the Department with a Certification Letter that indicates that the material supplied complies with the Specifications. Test results representative of the certified material shall be attached to the letter.**

**The Department will randomly sample and test the certified Material for properties noted in Table 1 of Section 502 - Structural Concrete or Table 14 of Section –401.21 Acceptance Method B & D. Material will be subject to rejection as noted in Structural Concrete Section 502.195 - Quality Assurance Method C Concrete or Hot Mix Asphalt, Section 401.2022 Pay Adjustment – Method B & D.”**

106.7.1 Standard Deviation Method Revise 106.7.1, subsection H by removing the following from the first paragraph:

“Method B:  $PF = [70 + (Quality\ Level * 0.33)] * 0.01$ ”

SECTION 107  
TIME

107.3.1 General Amend this paragraph by adding “**Juneteenth**” between ‘Patriot’s Day’ and ‘the Friday after Thanksgiving’.

SECTION 108  
PAYMENT

108.3 Retainage Revise the third paragraph of this section so that it reads:

**“Upon Final Acceptance, and determination by the department that there are no claims either by or on the Contractor or Subcontractors; no over payments by the department; no LDs due; and no disincentives due, the Department will reduce Retent to 1% of the original Contract Award amount, or \$100,000, whichever is less, as it deems desirable and prudent.”**

108.4.1 Price Adjustment for Hot Mix Asphalt Revise the first paragraph of this section by replacing the first sentence with the following:

**“For each Contract, a price adjustment for performance graded binder will be made for the following pay items, when the total quantity of Hot Mix Asphalt included in these items is in excess of 500 tons, based on the estimated quantities of these items at the time of bid.”**

Amend this section by adding “**Item 461.2101 Polymer Modified 9.5 mm**” to the list of Pay Items that are eligible for a price adjustment. Also add “**Item 461.2101 - 6.4%**” to the list of Asphalt percentages.

SECTION 110  
INDEMNIFICATION, BONDING, AND INSURANCE

110.3.9 Administrative & General Provisions Amend this subsection by adding “**Automobile Liability**” under letter A) Additional Insured to the list of exceptions.

SECTION 206  
STRUCTURAL EXCAVATION

206.01 Description – *Structural Earth Excavation, Below Grade* delete the entire sentence and replace with “**shall consist of the removal of excavation required for unknown or unanticipated subsurface condition. See 206.04 – Method of Measurement for pay limits.**”

206.04 Method of Measurement – Drainage and Minor Structures Paragraph 1, sentence 2, delete the remainder of the sentence beginning with “...provided the maximum allowable...”

And replace with: “**...in accordance with the following limits:**”

- **Vertical pay limits:**
  - o **Below a plane parallel with and 12 inches below the bottom of the drainage or minor structure or**

- **Below the excavation limits shown in the Bid Documents; whichever is greater.**
- **Horizontal pay limits – The maximum allowable horizontal dimensions shall not exceed those bounded by vertical surfaces 18 inches outside the base, or extreme limits of, the structure, and to the vertical neat lines of underdrain trenches, as shown in the Contract Documents.**

## SECTION 401 HOT MIX ASPHALT PAVEMENT

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

## SECTION 501 FOUNDATION PILES

### 501.05 Method of Measurement

c. Piles in Place Revise the third paragraph by replacing the “10” with “20” so that it reads:

Unused pile cutoffs **20** feet or more in length, except those required to accommodate the Contractor’s construction method, as discussed herein, will remain the property of the Department and will be stored at a bridge maintenance yard nearest the project. Hauling and unloading of piles will be done by the Contractor or by the Department, depending upon availability of services.

## SECTION 502 STRUCTURAL CONCRETE

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

### **502.10 Placing Concrete**

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

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

**502.17 Quality Control The Contractor shall control the quality of the concrete through testing, inspection, and practices which shall be described in the QCP, sufficient to assure a product meeting the Contract requirements. The QCP shall meet the requirements of Section 106, Quality, and this specification. No work under this item shall proceed until the QCP is**

submitted to and approved by the Department. Failure to comply with the approved QCP will result in work suspension and pay reductions as outlined in Section 106.4.6. The Quality Control Plan Value shall be the total bid value for all cast-in-place items covered by the QCP, using the P value listed in Special Provision 502. If no P value is listed, a value of \$350, or bid value per cubic yard, whichever is less, shall be used.

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

Section 502.1701, Quality Control, Revise Table 4 of this Subsection by removing it in its entirety and replacing it with:

TABLE 4  
METHOD A & B MINIMUM QUALITY CONTROL TESTING REQUIREMENTS \*

TEST	TEST METHOD	SAMPLING LOCATION	FREQUENCY
Gradation	AASHTO T-27 & T-11	Stockpile	One set per proposed grading before production. One set every 100 yd <sup>3</sup> (Min. 1 set per month)
Organic Impurities	AASHTO T-21	Stockpile	<b>Once per fine aggregate per year **</b>
% Absorption	AASHTO T-84 & T-85	Stockpile	Once per aggregate per year
Specific Gravity	AASHTO T-84 & T-85	Stockpile	Once per aggregate per year
Total Moisture in Aggregate	AASHTO T-255	Stockpile	One set per day's production
Free Water and Aggregate Wt.	N/A		One per day's production
% Entrained Air	AASHTO T-152	On Project	On first two loads and every third load thereafter provided consistent results are achieved
Compressive Strength	AASHTO T-22	On Project	One set per subplot
Compressive Strength	AASHTO T-22 @ 7days	On Project	One set per subplot

\* Additional QC testing will be required any time a process change occurs during a placement, including changes in type or dosage of admixture. Additional testing shall include, but is not limited to, entrained air testing.

\*\* **If the color produced is a laboratory designation Plate III, then the fine aggregate shall be tested once per month.**

502.18, Method of Measurement, Revise Subsection ‘F’ by removing the word ‘transverse’ so that it reads: **“Saw cut grooving of concrete wearing surfaces, complete and accepted, will be measured for payment as one lump sum.”**

502.19, Basis of Payment, Revise the third paragraph by removing the word ‘transverse’ so that it reads: **“Saw cut grooving of concrete wearing surfaces will be paid for at the Contract Lump Sum Price, which shall be payment for furnishing all materials, labor, and equipment, including depth gauges and all incidentals, to satisfactorily complete the work.”**  
(Also see 535.24 and 535.25 for related changes)

### SECTION 503 REINFORCING STEEL

Section 503.07 Splicing Revise this section by removing the table and following footnote and replacing them with:

Minimum Lap Splice Length (inches)									
Bar Type	Bar Size								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
Plain or Galvanized	16	20	24	29	38	47	59	72	85
Epoxy or Dual Coated	17	24	36	43	56	71	88	107	128
Stainless	19	24	30	36	47	59	73	89	107
Low-carbon Chromium	24	32	39	47	63	78	97	119	142

**“The minimum lap splice lengths in the table above are based on the parameters below. When any of these parameters are altered, appropriate minimum lap splice lengths will be as shown on the Plans.**

- Normal weight concrete
- Minimum 28-day concrete compressive strength from 4,000 psi to 10,000 psi
- Class B tension lap splice
- Minimum center-to-center spacing between bars of 6 inches
- Minimum clear cover of 2 inches
- Nominal reinforcing steel yield strengths
  - Low-carbon Chromium = 100 ksi
  - Stainless = 75 ksi
  - All others = 60 ksi
- Reinforcement with yield strengths greater than 75 ksi shall have beam transverse reinforcement and column ties provided over the required lap splice length in accordance with the current edition of the AASHTO LRFD Bridge Design Specifications

When lap splices are placed horizontally in an element where the concrete depth below the splice will be 12 inches, or more, the indicated lap splice lengths shall be multiplied by a factor of 1.3.”

SECTION 506  
SHOP APPLIED PROTECTIVE COATING – STEEL

506.13 Surface Preparation Amend this section by adding this paragraph to the end:

“Steel shall meet the requirements of SSPC SP8 Pickling prior to being immersed in the zinc tanks. Verification of the surface preparation shall be included in the QC documentation.”

SECTION 523  
BEARINGS

523.051 Protective Coating Revise this subsection by removing the paragraph beginning with “Anchor rods shall be galvanized...” and replacing with:

“Anchor rods shall be galvanized. When anchor rods are designated to secure bare unpainted steel or painted steel, a dielectric coating (epoxy or bituminous type coatings are acceptable) shall be applied to the anchor rod and/or adjacent steel to prevent contact between galvanized surfaces and painted or unpainted steel.”

523.22 Fabrication Amend this subsection by adding the following: “Elastomeric Bearings shall be fabricated in accordance with AASHTO M251.”

SECTION 526  
CONCRETE BARRIER

Amend this section by deleting it in its entirety and replacing it with:

**526.01 Description** This work shall consist of the furnishing, constructing, erecting, setting, resetting, and removal of concrete barrier and associated elements in accordance with these specifications, the Standard Details, and the lines and grades shown on the Plans or established by the Resident.

The types of concrete barrier are designated as follows:

**Portable Concrete Barrier Type I** Double faced removable barrier in accordance with the Standard Details.

**Permanent Concrete Barrier Type II** Double faced barrier as shown on the Plans.

**Permanent Concrete Barrier Type IIIa** Single faced barrier 32 inches high in accordance with the Standard Details or as shown on the Plans.

**Permanent Concrete Barrier Type IIIb** Single faced barrier 42 inches high in accordance with the Standard Details or as shown on the Plans.

**Permanent Concrete Transition Barrier** Barrier of various heights joining steel bridge rail to steel guardrail in accordance with the Standard Details or as shown on the Plans.

**Permanent Texas Classic Rail Barrier** Traffic rail or sidewalk rail, in accordance with the Standard Details or as shown on the Plans.

### **526.02 Materials**

a. **Concrete** Concrete for barriers, both permanent and portable, shall have a design strength of 5,000 psi.

For cast-in-place barrier: The concrete shall be Class LP, in accordance with Standard Specification Section 502, Structural Concrete.

For precast barrier: The concrete shall meet the requirements of Standard Specification 712.061, Structural Precast Concrete Units, except that the stripping strength for precast barriers is 4,000 psi.

b. **Reinforcing Steel** Reinforcing steel shall meet the requirements of Section 503, Reinforcing Steel.

c. **Structural Steel** Plates and barrier connections shall meet the requirements specified in Standard Specification 504 - Structural Steel and shall be hot dip galvanized after fabrication in accordance with Standard Specification 506, Shop Applied Protective Coating – Steel

d. **Bolts** Bolts shall meet the requirements specified in Section 713.02, High Strength Bolts.

e. **Connecting Pins for Portable Concrete Barrier** Portable concrete barriers must be connected using a 1- inch diameter pin. The connecting pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A449 steel. Materials with greater strength may be used with the approval of the Department.

f. **Anchor Pins for Portable Concrete Barrier** Anchoring to concrete or asphalt will be required when specified on the Plans. When required, portable concrete barriers must be anchored using a 1 ½ - inch diameter anchor pin. The anchor pin must be smooth, not deformed, i.e., reinforcing bar may not be used, and shall meet the strength requirements of ASTM A36 steel. Materials with greater strength may be used with the approval of the Department.

g. **Device Crashworthiness** MaineDOT is transitioning to MASH2016 criteria for Portable Concrete Barrier on the following schedule:

**New Portable Concrete Barrier shall be crash tested and/or evaluated to MASH2016 criteria.**

**Current Portable Concrete Barrier in useful serviceable condition that is successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.**

**Other current Portable Concrete Barrier that is deemed acceptable by the Department may be utilized on projects off the National Highway System through December 31, 2024.**

**526.03 Construction Requirements**

**Cast-in-place barriers shall be fabricated in accordance with Standard Specification Section 502, Structural Concrete. Precast barriers shall be fabricated in accordance with Standard Specification 534, Precast Structural Concrete.**

**Concrete finish for permanent barrier shall be rubbed as defined in Standard Specification Section 502, Structural Concrete, 502.13 D2 or an approved equal.**

**Portable concrete barrier shall be generally free from fins and porous areas and shall present a neat and uniform appearance.**

**Permanent barrier shall have a protective coating applied in accordance with Standard Specification Section 515, Protective Coating for Concrete Surfaces.**

**Reflective delineators for concrete median barrier shall meet the requirements of Special Provision 645, Highway Signing.**

**Preformed Joint Filler shall meet the requirements specified in Subsection 705.01, Preformed Expansion Joint Filler.**

**Permissible dimensional tolerances for all concrete barriers shall be as follows:**

- a. Cross-sectional dimensions shall not vary from design dimensions by more than  $\frac{1}{4}$  inch. The vertical centerline shall not be out of plumb by more than  $\frac{1}{4}$  inch.**
- b. Longitudinal dimensions shall not vary from the design dimensions by more than  $\frac{1}{4}$  inch per 10 feet of barrier section and shall not exceed  $\frac{3}{4}$  inches per section.**
- c. Location of anchoring holes shall not vary by more than  $\frac{1}{2}$  inch from the dimensions shown in the concrete barrier details on the Plans.**
- d. Surface straightness shall not vary more than  $\frac{1}{4}$  inch under a 10-foot straightedge.**
- e. The barrier shall have no significant cracking. Significant cracking is defined as fractures or cracks passing through the section, or any continuous crack extending for a length of 12 inches or more, regardless of position in the section.**

**526.04 Method of Measurement** Permanent Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be measured for payment by lump sum, complete in place.

Portable concrete barrier, both anchored and unanchored will be measured for payment by lump sum. Lump sum measurement will include verification of the installation and removal of all portable concrete at the completion of the Contractor's operations.

The Contractor shall replace sections of portable concrete barrier, including anchored barrier damaged by the traveling public when directed by the Resident. Replacement sections will be measured for payment in accordance with Standard Specification 109.7, Equitable Adjustments to Compensation and Time.

Transition barrier will be measured by each, complete in place.

**526.05 Basis of Payment** The accepted quantities of Concrete Barrier Type II, IIIa, IIIb, Texas Classic Rail, and Precast Median Barrier will be paid for at the Contract lump sum price for the type specified, complete in place.

The accepted quantities of Portable Concrete Barrier Type I, both anchored and unanchored will be paid for at the Contract lump sum price. Such payment shall be full compensation for furnishing all materials, assembling, moving, resetting, transporting, temporarily storing, removing barrier, furnishing new parts as necessary, and all incidentals necessary to complete the work.

Portable barrier shall become the property of the Contractor upon completion of the use of the barrier on the project and shall be removed from the project site by the Contractor.

Transition barrier will be paid for at the Contract price each, complete in place.

The accepted quantity of all types of concrete barrier, whether portable or permanent, will be paid for at the lump sum or per each price, as applicable, which payment shall be full compensation for all materials, including reinforcing steel, protective coating, reflective delineators, steel plates and hardware, equipment, labor and incidentals required, as necessary, to complete the work.

Payment will be made under:

	<b><u>Pay Item</u></b>	<b><u>Pay Unit</u></b>
526.301	Portable Concrete Barrier, Type I	Lump Sum
526.304	Portable Concrete Barrier, Anchored Type I	Lump Sum
526.312	Permanent Concrete Barrier Type II	Lump Sum
526.321	Permanent Concrete Barrier Type IIIa	Lump Sum
526.323	Texas Classic Rail	Lump Sum

526.331	Permanent Concrete Barrier Type IIIb	Lump Sum
526.34	Permanent Concrete Transition Barrier	Each
526.502	Precast Concrete Median Barrier	Lump Sum”

SECTION 527  
ENERGY ABSORBING UNIT

527.02 Materials Amend this section by deleting it in its entirety and replacing it with:

**“MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Portable Crash Cushions will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.**

**Work Zone Crash Cushions shall be selected from the Department’s Qualified Products List of Crash Cushions/Impact Attenuators or approved equal.”**

SECTION 535  
PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE

535.24, Installation of Slabs, Beams, and Girders Revise the 5<sup>th</sup> paragraph by replacing “6.0 and 9.0” to “5.0 and 8.0” so it reads: **“Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements.”**

535.25, Installation of Precast/Prestressed Deck Panels Revise the 2<sup>nd</sup> paragraph by replacing “6.0 and 9.0” to “5.0 and 8.0” so it reads: **“Ready mixed grout shall achieve a design compressive strength of 6,000 psi at 28 days, have an entrained air content of between 5.0 and 8.0 percent, be non-shrink, flowable, and contain a non-shrink additive listed on the Department QPL for expansive cements.”**

SECTION 606  
GUARDRAIL

Amend this section by replacing it with the following:

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

31" W-Beam Guardrail - Mid-Way Splice

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

Thrie Beam

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

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

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

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

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

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

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

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

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

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

Reflectorized beam guardrail reflectors shall be mounted on all "w" beam guardrail and shall be either the "butterfly" type or linear delineation system panels. "Butterfly" or linear delineation panels shall be installed at approximately 62.5 foot intervals on tangents (after every tenth post) and 31.25 feet on curves (after every fifth post), and shall be centered on the guardrail beam. On Divided highways, the left-hand delineators shall be yellow and the right-hand delineators shall be silver/ white. On two-way directional highways, the right-hand side will have silver / white reflectors and no reflectorized delineator used on the left. Delineators shall have reflective sheeting that meets or exceeds the requirements of Section 719.01.

"Butterfly" reflectors shall be fabricated from high-impact, ultraviolet & weather resistant thermoplastic. Aluminum, galvanized metal or other materials shall not be used. Reflective sheeting will be applied to only one side of the delineator facing the direction of traffic and shall be centered vertically on the guardrail beam as shown in the Standard Detail 606(7).

Linear delineation system panels shall be 1.5 inches wide by approximately 11 inches nominal length, with a minimum of 5 raised lateral ridges spaced at approximately 2.25 inches. The height of each ridge shall be 0.34 inches with a 45 degree profile and a 0.28 inches radius at the top. Sheeting shall be laminated to thin gauge aluminum with a pre-applied adhesive tape on the back. Panels shall not be installed over seams or bolt heads and shall be centered horizontally on the guardrail beam; linear delineation panels shall be attached to only one guardrail beam. The guardrail beam surface shall be cleaned and prepared according to the manufacturer's instructions. Air temperature and guardrail surface temperature must be a minimum of 50 degrees F (10 C) with rising temperature at the time of installation.

Exact locations of the either the “butterfly” type or the linear delineation panels shall be approved by the Resident prior to installation.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Reflectorized beam guardrail reflectors (“butterfly” type or linear delineation system panels) when identified by pay item, will be measured for payment by each.

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

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

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

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

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

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

Modify guardrail will be paid for at the contract unit price per linear foot and will be full compensation for furnishing and installing offset blocks, additional posts, and other specified modifications; removing, modifying, installing, and adjusting to grade existing posts and beams;

removing plate washers and backup plates, and all incidentals necessary to complete the work. Payment shall also include removing and resetting guardrail terminals where required.

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

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

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

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

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

Reflectorized beam guardrail reflectors ( “butterfly” type and the linear delineation panels ) will not be paid for directly but will be considered incidental to all new guardrail items. The Contractor shall furnish and install either the “butterfly” type or linear delineation panels, at its discretion, for new guardrail items.

Reflectorized beam guardrail reflectors ( either “butterfly” type or linear delineation system panels) will be paid for under the applicable pay items for installation in conjunction with Adjust, Modify, Remove and Reset, Remove Modify and Reset guardrail items. The accepted quantity of “butterfly” type or linear delineation system panels will be paid for at the contract unit price each for all work and materials furnished to install, complete in place, including all incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
606.1301 31” W-Beam Guardrail - Mid-Way Splice – Single Faced	Linear Foot
606.1302 31” W-Beam Guardrail - Mid-Way Splice – Double Faced	Linear Foot
606.1303 31” W-Beam Guardrail - Mid-Way Splice, 15’ Radius and Less	Linear Foot
606.1304 31” W-Beam Guardrail - Mid-Way Splice, Over 15’ Radius	Linear Foot
606.1305 31” W-Beam Guardrail - Mid-Way Splice Flared Terminal	Each
606.1306 31” W-Beam Guardrail - Mid-Way Splice Tangent Terminal	Each

606.1307	Bridge Transition (Asymmetrical) – Type IA	Each
606.1721	Bridge Transition - Type I	Each
606.1722	Bridge Transition - Type II	Each
606.1731	Bridge Connection - Type I	Each
606.1732	Bridge Connection - Type II	Each
606.178	Guardrail Beam	Linear Foot
606.25	Terminal Connector	Each
606.257	Terminal Connector - Thrie Beam	Each
606.259	Anchorage Assembly	Each
606.265	Terminal End-Single Rail - Galvanized Steel	Each
606.266	Terminal End-Single Rail - Corrosion Resistant Steel	Each
606.275	Terminal End-Double Rail - Galvanized Steel	Each
606.276	Terminal End-Double Rail - Corrosion Resistant Steel	Each
606.352	Reflectorized Beam Guardrail Delineators (“Butterfly” type)	Each
606.3521	Linear Delineation System Panel	Each
606.353	Reflectorized Flexible Guardrail Marker	Each
606.354	Remove and Reset Reflectorized Flexible Guardrail Marker	Each
606.356	Underdrain Delineator Post	Each
606.358	Guardrail, Modify	Linear Foot
606.362	Guardrail, Adjust	Linear Foot
606.365	Guardrail, Remove, Modify, and Reset	Linear Foot
606.366	Guardrail, Remove and Reset	Linear Foot
606.367	Replace Unusable Existing Guardrail Posts	Each
606.3671	Replace Unusable Offset Blocks	Each
606.47	Single Wood Post	Each
606.48	Single Galvanized Steel Post	Each
606.50	Single Steel Pipe Post	Each
606.51	Multiple Mailbox Support	Each
606.568	Guardrail, Modify - Double Rail	Linear Foot
606.63	Thrie Beam Rail Beam	Linear Foot
606.64	Guardrail Thrie Beam - Double Rail	Linear Foot
606.65	Guardrail Thrie Beam - Single Rail	Linear Foot
606.66	Terminal End Thrie Beam	Each
606.70	Transition Section - Thrie Beam	Each
606.71	Guardrail Thrie Beam - 15 ft radius and less	Linear Foot
606.72	Guardrail Thrie Beam - over 15 ft radius	Linear Foot
606.73	Guardrail Thrie Beam - Single Rail Bridge Mounted	Linear Foot
606.74	Guardrail - Single Rail Bridge Mounted	Linear Foot
606.753	Widen Shoulder for Low Volume Guardrail End	Each
606.754	Widen Shoulder for Flared Guardrail Terminal	Each
606.78	Low Volume Guardrail End	Each
606.80	Buried-in-Slope Guardrail End	Each

SECTION 608  
SIDEWALKS

Section 608.022 Detectable Warning Materials Standard Revise this section by removing the last sentence of this section beginning with “Concrete...” and replacing it with “**Concrete shall meet the requirements of Section 608.021, Sidewalk Materials, of this specification or may be a prepackaged concrete mix from the Department’s Qualified Products List (QPL).**”

SECTION 609  
CURB

609.02 Materials Revise the paragraph beginning “The Contractor shall submit a concrete mix...” so that it reads:

**“The Contractor shall submit a concrete mix design for the Portland Cement Concrete to the Resident, with a minimum designed compressive strength of 3000 psi concrete fill.”**

609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections Revise this section by underlining the section number and title so that it reads in the spec book as:

**“609.03 Vertical Stone Curb, Terminal Section and Transition Sections and Portland Cement Concrete Curb, Terminal Sections and Transition Sections”**

Revise the last paragraph beginning with “The Contractor may elect...” so that it reads:

**“The Contractor may elect to substitute concrete to backfill Stone Curbing or Stone Edging at their option. If the concrete backfill option is elected, the Concrete Fill shall meet the requirements of 609.02. The Contractor shall submit a concrete design for the Portland Cement Concrete, with a minimum designated compressive strength of 3000 PSI meeting the requirements of Class S or Class Fill Concrete. The Contractor may elect to choose a Prepackaged Concrete Mix from the Department’s Qualified Products list (QPL). Concrete backfill shall be completed in conformance with a Department supplied concrete backfill detail.”**

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

610.02 Materials Amend this subsection by adding the following to the end of the material list:  
**“Stone Ditch Protection 703.29”**

SECTION 618  
SEEDING

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

SECTION 619  
MULCH

619.03 General Amend this Section by adding the following sentence to the end: “**Straw mulch shall be used in all wetland areas.**”

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

Section 626.021 Miscellaneous Materials Revise this section by removing the fourth paragraph beginning with “ All Concrete for concrete encasement...” and replace it with “**All concrete for concrete encasement of conduit shall be Class S or Class Fill concrete in accordance with the applicable requirements of Section 502 – Structural Concrete, or a Prepackaged Concrete Mix from the Department’s Qualified Products List (QPL).**”

Section 626.031 Conduit Revise the fifth paragraph beginning with “After the trench has been...” by removing the last sentence beginning with “Where concrete encasement...” and replacing it with “**Where concrete encasement is required around the conduit, the concrete shall meet Class S, Class Fill in accordance with the applicable requirements of Section 502 – Structural Concrete, or a Prepackaged Concrete Mix from the Department’s Qualified Products List (QPL).**”

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

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

626.036 Precast Foundations Revise the last sentence of paragraph one so that it reads: “**Construction of precast foundations shall conform to the Standard Details and all requirements of 712.061.**”

SECTION 627  
PAVEMENT MARKINGS

627.06 Application Revise this subsection by replacing the paragraph beginning with “ On other final pavement markings...” with the following:

**“On other final pavement markings and on curb, where the paint is applied by hand painting or spraying, application shall be one uniform covering coat at least 16 mils thick. Before the paint has dried, the glass beads shall be applied by a pressure system that will force the glass beads onto the undried paint as uniformly as possible.**

**Painted lines and markings shall be applied in accordance with the manufacturer’s published recommendations. These recommendations will be supplied to the Resident prior to installation.”**

Revise this subsection by replacing the paragraph beginning with “ If the final reflectivity values are less...” with the following:

**The final reflectivity will be acceptable if 90 percent or more of the painted pavement lines and markings meet the specified minimum value. If less than 90 percent of the painted pavement lines and markings meet the specified minimum final reflectivity values, the Contractor shall repaint those areas not meeting required reflectivity at no cost to the Department.**

**If, after repainting, analysis of the final reflectivity values results in the need for a second repainting, the Contractor will submit in writing a plan of action to meet the reflectivity minimums prior to continuing any work. Once the plan has been reviewed and approved by the Department, the Contractor shall reapply at no cost to the Department.**

SECTION 637  
DUST CONTROL

Revise this section by removing it in its entirety.

SECTION 643  
TRAFFIC SIGNALS

643.021 Materials Amend this subsection by adding the following at the end:

**“MaineDOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Temporary Traffic Control Signals will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.”**

643.023 Traffic Signal Structures Remove the third paragraph and replace it with the following:

**“Traffic signal support structures shall be classified as Fatigue Category III if they are located on roads with a speed limit of 35 mph or less, Fatigue Category II if they are located on roads with a speed limit of greater than 35 mph, and Fatigue Category I if noted on the Contract Plans. Fatigue Importance Factors shall be as specified in Table 11.6-1 (Fatigue Importance Factors). Fatigue analyses are not required for span-wire (strain) pole traffic signal support structures with heights of 55 feet or less unless required by the current edition of AASHTO “LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals”.**

643.09 Service Connection Revise this subsection by removing the paragraph that begins with “Traffic signal services shall have...”.

And by removing the paragraphs beginning with “ A service ground rod shall be installed...” and “A total of 4, 10’ service...” and replace them with **“A total of 4, 10’ service ground rods shall be installed and properly connected together on the outside of the cabinet foundation. One ground rod shall be located at each corner and shall be either flush or slightly below finished grade. The connection between the ground rod and the ground wire shall be an exothermic connection such as a Cadweld. The ground wire from the interconnected ground rods shall be routed through a conduit in the foundation and into the base of the cabinet”.**

## SECTION 645 HIGHWAY SIGNING

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

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

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

SECTION 652  
MAINTENANCE OF TRAFFIC

Amend this Section by adding the following new subsection:

**“652.2.6 Device Crashworthiness MainedOT is transitioning to MASH2016 criteria for Work Zone Traffic Control Devices on the following schedule:**

**Category 1 (Cones, Drums, Tubular Markers, Flexible Delineators, and similar devices that have little chance if causing windshield penetration, tire damage, or other significant effect on the control or trajectory of a vehicle) – All Category 1 devices will be manufacturer self-certified as MASH2016 by January 1, 2025. Current Category 1 devices in useful serviceable condition that are not self-certified as MASH2016 compliant may be utilized through December 31, 2024.**

**Category 2 (Barricades, Portable Sign Supports, Category 1 devices with attachments, and similar devices that are not expected to produce significant vehicular velocity change but may be otherwise hazardous) – All Category 2 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2025. Current Category 2 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2024.**

**Category 3 (Portable Concrete Barrier, Portable Crash Cushions, Truck Mounted Attenuators, Category 2 devices weighing more than 100 pounds, and similar devices that are expected to produce significant vehicular velocity change or other harmful reactions) – All Category 3 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 3 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029. (See Standard Specification 526 for additional Portable Concrete Barrier information).**

**Category 4 (Trailer Mounted Devices: Arrow Boards, Temporary Traffic Control Signals, Area Lighting, Portable Changeable Message Sign, and other similar devices.) – All Category 4 devices will be crash tested and/or evaluated to MASH2016 criteria by January 1, 2030. Current Category 4 devices in useful serviceable condition that are successfully tested to NCHRP Report 350 or MASH2009 criteria may be utilized through December 31, 2029.”**

652.4 Flaggers Revise the first paragraph of this section so that it reads:

“The Contractor shall furnish flaggers as required by the TCP or as otherwise specified by the Resident. All flaggers must have successfully completed a flagger test approved by the Department and administered by a Department-approved Flagger-Certifier who is employing that flagger. All flaggers must carry an official certification card with them while flagging that has been issued by their employer.”

SECTION 681  
PRECAST AGGREGATE-FILLED, CONCRETE BLOCK GRAVITY WALL

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

SECTION 701  
STRUCTURAL CONCRETE RELATED MATERIAL

701.01 Portland Cement and Portland Pozzolan Cement Amend the first sentence of Paragraph 3 by adding “**or Type 1L Portland Limestone cement**” so that it reads:  
“**A Type IP (MS) Portland-pozzolan cement (blended hydraulic cement with moderate sulfate resistance) or Type 1L Portland Limestone cement meeting the requirements of AASHTO M 240, may be used instead of Type II or where Type I Portland cement, meeting the requirements of AASHTO M 85, is allowed.**”

SECTION 703  
AGGREGATES

Add the following to Section 703 - Aggregates

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

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

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

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

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

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

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

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

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

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

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

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

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves			
	A	AA	S	LATEX
Grading				
Aggregate Size	1 inch	3/4 inch	1 1/2 inch	1/2 inch
2 inch			100	
1 1/2 inch	100		95-100	
1 inch	95-100	100	-	
3/4 inch	-	90-100	35-70	100
1/2 inch	25-60	-	-	90-100
3/8 inch	-	20-55	10-30	40-70
No. 4	0-10	0-10	0-5	0-15
No. 8	0-5	0-5	-	0-5
No. 16	-	-	-	-
No. 50	-	-	-	-
No. 200	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5

703.0201 Alkali Silica Reactive Aggregates All coarse and fine aggregates proposed for use in concrete shall be tested for Alkali Silica Reactivity (ASR) potential under AASHTO T 303 (ASTM C 1260), Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction, prior to being accepted for use. Acceptance will be based on testing performed by 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:

- a. Class F Coal Fly Ash meeting the requirements of AASHTO M 295
- b. Ground Granulated Blast Furnace Slag (Grade 100 or 120) meeting the requirements of AASHTO M 302
- c. Densified Silica Fume meeting the requirements of AASHTO M 307
- d. Lithium-based admixtures
- e. 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.

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

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
3/8 inch	85-100
No. 200	0-5.0

703.06 Aggregate for Base and Subbase The following shall apply to Sections (a.) and (c.) below. The material shall have a Micro-Deval 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 1/2 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

703.081 RAP for Asphalt Pavement Recycled Asphalt Pavement (RAP) may be introduced into hot-mix asphalt pavement at percentages approved by the Department according to the MaineDOT Policies and Procedures for HMA Sampling and Testing.

If approved by the Department, the Contractor shall provide documentation stating the source, test results for average residual asphalt content, and stockpile gradations showing RAP materials have been sized to meet the maximum aggregate size requirements of each mix designation. The Department will obtain samples for verification and approval prior to its use.

The maximum allowable percent of RAP shall be determined by the asphalt content, the percent passing the 0.075 mm sieve, the ratio between the percent passing the 0.075 mm sieve and the asphalt content, and Coarse Micro-Deval loss values as tested by the Department.

The maximum percentage of RAP allowable shall be the lowest percentage as determined according to Table 4 below:

<b>Classification</b>	<b>Maximum RAP Percentage Allowed</b>	<b>Asphalt content standard deviation</b>	<b>Percent passing 0.075 mm sieve standard deviation</b>	<b>Percent passing 0.075 mm sieve / asphalt content ratio</b>	<b>Residual aggregate M-D loss value</b>
<b>Class III</b>	<b>10%</b>	<b>≤ 1.0</b>	<b>N/A</b>	<b>≤ 4.0</b>	<b>≤ 18</b>
<b>Class II</b>	<b>20%</b>	<b>≤ 0.5</b>	<b>≤ 1.0</b>	<b>≤ 2.8</b>	
<b>Class I</b>	<b>30%</b>	<b>≤ 0.3</b>	<b>≤ 0.5</b>	<b>≤ 1.8</b>	

Table 4: Maximum Percent RAP According to Test Results

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

Table 5: RAP Verification Limits

<b>Classification</b>	<b>Asphalt content (compared to aim)</b>	<b>Percent passing 0.075 mm sieve (compared to aim)</b>
<b>Class III</b>	<b>± 1.5</b>	<b>± 2.0</b>
<b>Class II</b>	<b>± 1.0</b>	<b>± 1.5</b>
<b>Class I</b>	<b>± 0.5</b>	<b>± 0.7</b>

For specification purposes, RAP will be categorized as follows:

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

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

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

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

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

## SECTION 709 REINFORCING STEEL AND WELDED STEEL WIRE FABRIC

709.01 Reinforcing Steel Remove the second paragraph of Section 709.01 of the standard specification beginning with “Low-Carbon, Chromium,...” and replace with the following:

**“ Low-carbon, chromium, reinforcing steel shall be deformed bars conforming to the requirements of ASTM A1035. Bars shall be Grade 100 and alloy Type CS unless otherwise specified on the Plans. “**

## SECTION 710 FENCE AND GUARDRAIL

710.06 Fence Posts and Braces Revise the first Paragraph so that it reads:

“Wood posts shall be of cedar, white oak, or tamarack or other AWPAs approved species, of the diameter or section and length shown on the plans.”

Remove the fourth paragraph which starts “ That portion of wood posts...”.

Revise the paragraph beginning with “Braces shall be of spruce, eastern hemlock ... so that it now reads:

“Braces shall be of spruce, eastern hemlock, Norway pine, pitch pine, or tamarack timbers or other AWPAs approved species, or spruce, cedar, tamarack or other AWPAs approved species round posts of sufficient length to make a diagonal brace between adjacent posts. All wood posts and braces shall be pressure-treated in accordance with AASHTO M 133 and AWPAs U1, UC4A Commodity Specification B: Posts. “

710.07 Guardrail Posts Revise this section so that the first sentence of section a. reads:

“a. Wood posts shall be of Norway pine, southern yellow pine, pitch pine, Douglas fir, red pine, white pine, or eastern hemlock or other AWPAs approved species.”

Revise the next paragraph so that it reads:

Wood posts and offset brackets shall be preservative treated in accordance with the requirements of AASHTO M 133 and AWPAs U1, UC4A Commodity Specification B: Posts.

710.08 Guardrail Hardware Revise this subsection by replacing “AASHTO M 298” with “ASTM B695”

## SECTION 712 MISCELLANEOUS HIGHWAY MATERIAL

712.061 Structural Precast Units Amend this section by adding the following sentence to the end of the first paragraph of the Construction subsection:

**“Facilities certified by NPCA or PCI shall provide to the Fabrication Engineer a copy of their annual audit to include deficiency reports and corrective actions.”**

Revise this section by changing the letter “b” of ASTM C1611 of the Concrete Testing subsection so that it reads:

**“b. Air content shall be 5.0% to 8.0%.”**

SECTION 713  
STRUCTURAL STEEL AND RELATED MATERIAL

**Section 713.02 High Strength Bolts**

Revise the second sentence of this subsection so that it reads “**Nuts shall meet the requirement of ASTM A563**”. Revise the third sentence of this subsection so that it reads “**Circular and beveled washers shall conform to the requirement of ASTM F436**”.

SECTION 718  
TRAFFIC SIGNALS MATERIAL

718.03 Signal Mounting Amend the paragraph beginning with “All trunions, brackets and...” by adding “**For polycarbonate signal heads with more than 3 sections or requiring mounting extensions greater than 12 inches in length, reinforcing plates shall be used to reinforce the housings at the point of attachment.**” to the end of the paragraph.

718.08 Controller Cabinet Revise this subsection by replacing the paragraph beginning with “The cabinet shall be supplied with LED light panels...” on or about page 7-66 with “**The cabinet shall be supplied with white LED light panels which shall automatically illuminate via a door open switch whenever one of the four main cabinet doors are opened for the ground mount cabinet or two main doors for the side of pole cabinet. The ground mounted cabinet shall contain four LED light panels per side totaling eight panels for the cabinet; one panel each at the top and bottom portion of the front side and back side on the Control side and Power/Auxiliary side of the cabinet. Each light panel shall produce a minimum of 250 lumens for a total minimum lumen output of 2000 lumens with all eight panels illuminated. The minimum output per side would be 1000 lumens. The LED panels shall be protected by a clear shatterproof shield. The side of pole mounted cabinet shall contain four light panels; one at the top of the rack assembly and one at the bottom rack assembly on each side of the cabinet. A second door open status switch per door shall activate a controller input to log a report event that one of the doors was opened. All door open status switches shall be connected to the same controller input. For the ground mount cabinet, there shall be two switches on each of the four main doors. For the side-of-pole mount cabinet, there shall be two switches on each of the two main doors.**”

Revise this subsection by replacing the paragraph beginning with “The cabinet shall be supplied with a generator panel ...” on or about page 7-68 with:

**“The cabinet shall be supplied with a generator panel. The generator panel shall consist of a manual transfer switch and a twist-lock connector for generator hookup. The transfer switch knob and twist-lock connector shall be located inside a stainless steel enclosure with a separate lockable door accessed with a Corbin #2 key. The unit shall be mounted on the left, exterior of the control side wall of the ground mount cabinet a minimum of 36” above the surrounding grade and on the lower left side of the pole mounted cabinet. The generator transfer switch shall be a Reliance C30A1N Signa Series or approved equal. “**

Revise this subsection by removing the following from the paragraph beginning with “The ground mounted cabinet shall be supplied and installed with an electric service meter socket trim and

electrical service disconnect switch ...” on or about page 7-69: **“(removed: thus preventing that space from being used either by equipment supplied as part of the project, or future equipment that would be installed in the rack system. Joe indicated that he would add this language to the detail so it is covered.)”**.

Revise this subsection by replacing the following in the paragraph beginning with “The Contractor shall reconfigure the default user name...” on or around page 7-70; “MaineDOT IT” with **“MaineDOT Traffic Division”**.

In the paragraph beginning with “Tests shall be conducted by the contractor...” on or around page 7-73, amend this subsection by removing **“in the state of Maine and”** after “The facility shall be”.

Amend this Section by adding the following subsection:

**718.13 Field Monitoring Unit (FMU)** This item of work shall conform to this specification. This item shall consist of furnishing and installing a Field Monitoring Unit (FMU) and software, as well as all needed accessories required for a full and complete installation, including but not limited to power adapters, Ethernet cables, and interface cables, as described herein.

Where applicable, communications from MaineDOT’s cloud-based Central Management System (CMS) to the on-street traffic signal controllers shall be made through fiber optic interconnect cable connected back to existing internet connections and/or the Field Monitoring Unit (FMU). The Contractor shall furnish and install all materials necessary for a complete and operational fiber optic interconnection to all project intersections as shown on the plans. All connections to the CMS cloud-based system shall be via a secure VPN network.

The FMU shall be the only remote connection device used by isolated intersections to connect to the cloud-based system. All connections shall be encrypted VPN tunnels. The Contractor shall coordinate all configuration settings with MaineDOT IT and the Engineer.

The FMU central web based interface shall be a separate element from the CMS.

MATERIALS: The materials for this work shall conform to the following requirements:

1. The work under this item specifies the requirements for the FMU. The FMU shall operate independent of the brand/type of intersection controller deployed in the ATC traffic cabinet.
2. The FMU shall conform to the following requirements:
  - 2.1 The FMU shall function correctly between -34 degrees C and +74 degrees C.
  - 2.2 The FMU shall be provided with appropriately rated connectors that allows the FMU to be exchanged by unplugging connectors, without tools.
  - 2.3 The FMU shall monitor and log all ATC Controller and ATC cabinet faults and or alarms.
  - 2.4 The FMU shall be wired directly to the ATC cabinet.

- 2.5 The FMU shall have an internal cellular modem running at 4G LTE.
- 2.5.1 The Cellular modem shall be designed to be replaced / upgraded to 5G service when available.
- 2.6 The FMU shall incorporate an integrated GPS and cell modem.
- 2.7 The configuration of the FMU shall be accomplished by accessing the internal web server with a browser. It shall be possible to configure the FMU without any special software.
- 2.8 The FMU shall be powered via a standard 120V input power.
- 2.9 The FMU shall allow for the routing of the controller configuration packets to and from the controller (either by Ethernet or serial communications) for any type of controller utilized by the MaineDOT. In this way it shall be possible to configure the controller and utilize the controller specific software to interrogate the controller, and the FMU shall provide the communications pipe which allows this to be accomplished.
- 2.10 The FMU shall, within the size limitations above, include a battery and battery charging/monitoring circuit, to allow the FMU to function correctly even when all power to the intersection has failed. The battery shall continue to power the FMU for a minimum of 5 hours after all power has failed to the intersection.
- 2.11 The FMU shall incorporate an integrated GPS which will allow the FMU to geo-locate itself on the FMU management software map, without configuration.
- 2.12 The FMU shall operate without requiring a static IP address. The only configuration required at the FMU is to enter the URL of where the FMU management software is hosted.
- 2.13 In the event that the cell service is interrupted or is not available, the FMU shall store any events that occur in internal memory and forward these events automatically to the FMU management software when the cell service is restored. In this way, a complete record of events at the device can be maintained even if cell service is interrupted for a period. The system will store 5000 events.
- 2.14 The FMU shall utilize HTTP and HTTPS protocols, and XML data structures, for communication with the FMU management software. In this way the data will be open for future expansion and competition. The use of secret proprietary protocols is not permitted.
- 2.15 The FMU shall include Ethernet communications via an Ethernet Port with RJ45 connector.
- 2.16 The FMU shall include weather proof antennas.

### **3. Map Display FMU Management Software**

- 3.1 The FMU shall include a scrollable, zoomable map display, with the intersections and other monitored devices shown as representative icons on the map. The map shall include the ability to see the intersections using Google Streetview.
- 3.2 The alarm status of the intersection shall be clearly indicated on the icon on the map, so that the user can see at a glance which intersections are in alarm.
- 3.3 The map display shall also include a list of intersections, with the number and priority of alarms indicated on the list. Intersections in high priority alarm shall be moved to the top of the list, followed by medium priority, low priority and then finally by intersections not in alarm.
- 3.4 The icons shall change to be able to clearly indicate if an intersection is offline.
- 3.5 Clicking on the icon on the map shall expose a box with the current parameters of the intersection shown.
- 3.6 The default map display position and zoom shall be configurable by user, so that the user's view will default to show the intersections that the user is responsible for managing.
- 3.7 The map view shall have the ability to show Google traffic overlays on the map.

### **4. Intersection Detail Display FMU Management Software**

- 4.1 It shall be possible to drill down, either from the map icon or from the list, to a device level detail for the intersection, which as a minimum shall display the following parameters:
  - 4.1.1 The alarm status, with priority indicated, and a text description of the alarm (if an alarm is present for this device).
  - 4.1.2 The time since the last communication with the device
  - 4.1.3 The following parameters (real time now values, minimum for the day values, maximum for the day values, and average for the day values)
    - 4.1.3.1 The AC mains voltage (value)
    - 4.1.3.2 The battery back-up voltage (value)
    - 4.1.3.3 The cabinet temperature (value)
    - 4.1.3.4 The cabinet humidity (value)
    - 4.1.3.5 The presence of AC power (OK or Fail)
    - 4.1.3.6 The flashing status of the intersection (OK or Flashing)

- 4.1.3.7 Stop Time status (OK or Stop Time Active)
- 4.1.3.8 The cabinet door status (Open or Closed)
- 4.1.3.9 The intersection fan status (Fan On or Fan off)
- 4.1.4 It shall be possible to view graphs of each of the value parameters in graphical form, over the recent two-week period. This includes real time graphs of:
  - 4.1.4.1 The AC mains voltage
  - 4.1.4.2 The battery back-up voltage
  - 4.1.4.3 The cabinet temperature
  - 4.1.4.4 The cabinet humidity

## **5. Diagnostics and Log Display FMU Management Software**

- 5.1 From the device level detail within the FMU management software, it shall be possible to drill down to get the raw data; the error logs; and the communications logs to allow a technician to fault-find problems.
- 5.2 It shall be possible to filter the logs by Device; by Device Type and/or by Group as well as between dates.
- 5.3 It shall be possible to print these selected logs to a local printer or a PDF file.
- 5.4 It shall be possible to export these logs to Excel on the local computer for further analysis.

## **6. Alarms FMU Management Software**

- 6.1 The FMU management software shall have a comprehensive alarm generation capability
- 6.2 It shall be possible to configure alarms to be generated on any parameter becoming out of tolerance, including analog values, digital values and enumerated values.
- 6.3 Alarms shall be configurable to be of Low, High or Critical Priority.
- 6.4 The alarm priority shall be displayed throughout the FMU management software, on all displays, using color codes such as red-critical; yellow – high; and amber-low to indicate the priority of the alarm.
- 6.5 The current active alarms shall be accessible for view via an expandable window, to see which alarms are active and when the alarm occurred. The highest priority alarms shall rise to the top of the list.

## **7. Alerts FMU Management Software**

- 7.1 The FMU management software shall have comprehensive alerting capability, to enable the response personnel to be notified when an abnormal situation has occurred.

- 7.2 It shall be possible to configure alerts to one or more personnel for each alarm. This will cause, as selected, an SMS and/or an email to be sent to the person when an alarm occurs.
- 7.3 The alert shall be configurable to optionally send via email and/or via SMS a message when an alarm clears.
- 7.4 The intention is that the FMU management software provides the alerts to the user in near real time. The SMS and email shall be issued within 30 seconds of the occurrence of event which results in an alert being issued.

## **8. Hosting and Connectivity and Service FMU / FMU Management Software**

- 8.1 The contractor shall supply the FMU with the FMU manufacturers 10 year options for Connectivity and Service, as part of the purchase price. The Connectivity and Service agreement shall include at a minimum:
  - 8.1.1 Cellular Connectivity
  - 8.1.2 No cellular overage charges
  - 8.1.3 Extended warranty on the hardware for the period of the Connectivity and Service Agreement
  - 8.1.4 Over-the-air software updates
  - 8.1.5 Over-the-air security updates
  - 8.1.6 Future Connected Vehicles Service

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

720.12 Wood Sign Posts Revise the first sentence so that it reads:

Wood sign posts shall be rectangular, straight and sound timber, cut from live growing native spruce, red pine, hemlock, cedar trees or other AWPAs approved species, free from loose knots or other structurally weakening defects of importance, such as shake or holes or heart rot.

Revise the third paragraph that starts with “When pressure treated...” so that it reads:

All sign posts shall be pressure-treated in accordance with AASHTO M 133 and AWPAs Standard U1, UC4A, Commodity Specification A: Sawn Products.