MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

CONTRACT DOCUMENTS

CONTRACT 2019.03

GUIDE SIGN MODIFICATIONS, PHASE IV
MAINE TURNPIKE EXITS 1 TO 19
MILE 0.00 TO 32.52

NOTICE TO CONTACTORS

PROPOSAL

CONTRACT AGREEMENT

CONTRACT BOND

FINAL LIEN AND CLAIM WAIVER AND AFFIDAVIT

SPECIFICATIONS

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

The Specifications are divided into two parts:
Part I, Supplemental Specifications and Part II, Special Provisions.

The Maine Turnpike Supplemental Specifications are additions and alterations to the 2014 Maine Department of Transportation Standard Specifications. See Subsection 100.1.

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MAINE TURNPIKE AUTHORITY

NOTICE TO CONTRACTORS

Sealed Proposals will be received by the Maine Turnpike Authority for:

CONTRACT 2019.03

GUIDE SIGN MODIFICATIONS, PHASE IV
MAINE TURNPIKE EXITS 1 TO 19
MILE 0.00 TO 32.52

at the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, ME, until 11:00 a.m., prevailing time as determined by the Authority on March 21, 2019 at which time and place the Proposals will be publicly opened and read. Bids will be accepted from Contractors **prequalified** by the Maine Department of Transportation for Highway Projects or for Bridge Projects or for Traffic Signal and Lighting Projects. All other bids may be rejected. This Project includes a wage determination developed by the State of Maine Department of Labor.

The work consists of removing, replacing and installing new highway signs and sign overlays along the Maine Turnpike from south of Exit 1 to north of Exit 19 in the Kittery to Biddeford segment of the Maine Turnpike in the City of Biddeford and the Towns of Kittery, York, and Wells. The work includes furnishing, installing and salvaging aluminum signs, steel H-beam sign supports, concrete foundations, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications. The work also includes the installation of three ground mounted dynamic message signs (DMS) on steel H-beams with solar power systems.

Plans and Contract Documents may be examined by prospective Bidders weekdays between 8:00 a.m. and 4:30 p.m. at the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine. **The half size Plans** and Contract Documents may be obtained from the Authority upon payment of One Hundred Twenty-Five ($125.00) Dollars for each set, which payment will not be returned. Checks shall be made payable to: Maine Turnpike Authority. The Plans and Contract Documents may also be downloaded from a link on our website at http://www.maineturnpike.com/project-and-planning/Construction-Contracts.aspx.

For general information regarding Bidding and Contracting procedures, contact Nate Carll, Purchasing Manager, at (207) 482-8115. For information regarding Schedule of Items, plan holders list and bid results, visit our website at **http://www.maineturnpike.com/project-and-planning/Construction-Contracts.aspx** . For Project specific information, fax all questions to Nate Carll, Purchasing Manager, at (207) 871-7739 or email ncarll@maineturnpike.com. Responses will not be prepared for questions received by telephone. Bidders shall not contact any other Authority staff or Consultants for clarification of Contract provisions, and the Authority will not be responsible for any interpretations so obtained.

All work shall be governed by the Specifications entitled "State of Maine, Department of Transportation, Standard Specifications, Revision of November 2014", "Standard Details,

Revision of November 2014" and "Best Management Practices for Erosion and Sediment Control", latest issue. Copies and recent updates to these publications can be downloaded at: http://www.maine.gov/mdot/contractors/publications/ .

Proposals must be accompanied by an original bid bond, certified or cashier's check payable to the Maine Turnpike Authority in an amount not less than Five (5%) Percent of the Total Amount in the Proposal, but not less than $500.00. The Bidder to whom a Contract is awarded will be required to furnish a Surety Corporation Bond, satisfactory to the Authority, on the standard Contract Bond form of the Authority, for a sum not less than the Total Amount of the Proposal.

Proposals must be made upon the Proposal Forms furnished by the Authority separately with the Contract Documents, and must be enclosed in the sealed special addressed envelope provided therefore bearing the name and address of the Bidder, the name of the Contract, and the date and time of Proposal opening on the outside.

A pre-bid conference will be held on March 5, 2019 at 11:00 a.m. at the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine.

The Authority reserves the unqualified right to reject any or all Proposals and to accept that Proposal which in its sole judgment will under all circumstances serve its best interest.

MAINE TURNPIKE AUTHORITY

Nate Carll
Purchasing Manager
Maine Turnpike Authority

Portland, Maine

Maine Turnpike Authority

MAINE TURNPIKE

PROPOSAL

CONTRACT 2019.03

GUIDE SIGN MODIFICATIONS, PHASE IV
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MAINE TURNPIKE AUTHORITY

PROPOSAL

CONTRACT 2019.03

GUIDE SIGN MODIFICATIONS, PHASE IV
MAINE TURNPIKE EXITS 1 TO 19
MILE 0.00 TO 32.52

TO MAINE TURNPIKE AUTHORITY:

The work consists of removing, replacing and installing new highway signs and sign overlays along the Maine Turnpike from south of Exit 1 to north of Exit 19 in the Kittery to Biddeford segment of the Maine Turnpike in the City of Biddeford and the Towns of Kittery, York, and Wells. The work includes furnishing, installing and salvaging aluminum signs, steel H-beam sign supports, concrete foundations, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications. The work also includes the installation of three ground mounted dynamic message signs (DMS) on steel H-beams with solar power systems.

This Work will be done under a Contract known as Contract 2019.03 according to the Plans and Specifications which are on file in the office of the Maine Turnpike Authority, 2360 Congress Street, Portland, Maine.

On the acceptance of this Proposal for said Work, the undersigned will give the required bond with good security conditioned for the faithful performance of said Work, according to said Plans and Specifications, and the doing of all other work required by said Specifications for the consideration herein named and with the further condition that the Maine Turnpike Authority shall be saved harmless from any and all damages that might accrue to any person, persons or property by reason of the carrying out of said Work, or any part thereof, or by reason of negligence of the undersigned, or any person or persons under his employment and engaged in said Work.

The undersigned hereby declares that he/she has carefully examined the Plans, Specifications and other Contract Documents, and that he/she will contract to carry out and complete the said Work as specified and delineated at the price per unit of measure for each scheduled item of Work stated in the Schedule of Prices as follows:

It is understood that the TOTAL AMOUNT stated by the undersigned in the following Schedule of Prices is based on approximate quantities and will be used solely for the comparison of bids, and that the quantities stated in the Schedule of Prices for the various items are estimates only and may be increased or decreased all as provided in the Specifications.

SCHEDULE OF BID PRICES
CONTRACT NO. 2019.03
GUIDE SIGN MODIFICATIONS, PHASE IV
MAINE TURNPIKE EXITS 1-19

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
203.20	COMMON EXCAVATION	CY	60				
205.511	WIDENING OF EXISTING SHOULDER	LF	250				
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY	60				
606.13	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (7' STEEL POSTS, 8" OFFSET BLOCKS, SINGLE FACED)	LF	650				
606.1306	31" W-BEAM GUARDRAIL - MIDWAY SPLICE TANGENT TERMINAL	EA	2				
606.1351	TERMINAL END - ANCHORED END - 31" W-BEAM GUARDRAIL	EA	1				
606.2652	TERMINAL END - REMOVE AND STACK	EA	1				
606.353	DELINEATOR POST	EA	17				
615.07	LOAM	CY	4				
618.14	SEEDING METHOD NUMBER 2	U	1				
619.1202	TEMPORARY MULCH	LS	1				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
BROUGHT FORWARD:							
626.12	QUAZITE JUNCTION BOX	EA	6				
626.22	NON-METALLIC CONDUIT	LF	2940				
626.221	NON-METALLIC CONDUIT, DIRECTIONAL BORE	LF	850				
626.32	24 INCH FOUNDATION	EA	1				
626.33	30 INCH FOUNDATION, 8-FOOT OR LESS FOUNDATION	EA	12				
626.3303	36 INCH FOUNDATION	EA	7				
626.373	REMOVE AND STACK CONCRETE PAD	EA	2				
629.05	HAND LABOR, STRAIGHT TIME	HR	80				
645.105	REMOVE AND STACK SIGN	EA	41				
645.109	REMOVE AND RESET SIGN	EA	6				
645.162	BREAKAWAY DEVICE MULTI POLE	EA	10				
645.251	ROADSIDE GUIDE SIGN, TYPE 1	SF	5377				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
BROUGHT FORWARD:							
645.2511	SHEET ALUMINUM OVERLAY, TYPE 1	SF	583				
645.252	ROADSIDE GUIDE SIGN, TYPE 1 - SUPPLIED BY AUTHORITY	EA	1				
645.271	REGULATORY, WARNING, CONFIRMATION AND ROUTE ASSEMBLY, TYPE 1	SF	12				
645.289	STEEL H-BEAM POLES	LBS	10360				
645.80	WOOD POSTS	LF	90				
650.101	DYNAMIC MESSAGE SIGN (DMS) SYSTEM: MM 10.01_S	LS	1				
650.101	DYNAMIC MESSAGE SIGN (DMS) SYSTEM: MM 21.78_S	LS	1				
650.101	DYNAMIC MESSAGE SIGN (DMS) SYSTEM: MM 32.52_N	LS	1				
650.201	DMS GROUND MOUNTED CONTROL CABINET: MM 10.01_S	EA	1				
650.201	DMS GROUND MOUNTED CONTROL CABINET: MM 21.78_S	EA	1				
650.201	DMS GROUND MOUNTED CONTROL CABINET: MM 32.52_N	EA	1				
650.901	DMS SOLAR POWER SYSTEM: MM 10.01_S	LS	1				

CARRIED FORWARD:

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
				BROUGHT FORWARD:			
650.901	DMS SOLAR POWER SYSTEM: MM 21.78_S	LS	1				
650.901	DMS SOLAR POWER SYSTEM: MM 32.52_N	LS	1				
652.300	FLASHING ARROW	EA	2				
652.330	DRUM	EA	240				
652.350	CONSTRUCTION SIGNS	SF	1100				
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	1				
652.380	FLAGGERS	HR	32				
652.410	PORTABLE CHANGEABLE MESSAGE SIGN	EA	2				
652.450	TRUCK MOUNTED ATTENUATOR	CD	150				
652.451	AUTOMATED SPEED LIMIT SIGN	CD	100				
656.632	30 INCH TEMPORARY SILT FENCE	LF	2400				
659.100	MOBILIZATION	LS	1				

TOTAL:	

Acknowledgment is hereby made of the following Addenda received since issuance of the Plans and Specifications: _____

_____

_____

Accompanying this Proposal is an original bid bond, cashiers or certified check on _____ Bank, for _____, payable to the Maine Turnpike Authority. In case this Proposal shall be accepted by the Maine Turnpike Authority and the undersigned should fail to execute a Contract with, and furnish the security required by the Maine Turnpike Authority as set forth in the Specifications, within the time fixed therein, an amount of money equal to Five (5%) Percent of the Total Amount of the Proposal for the Contract awarded to the undersigned, but not less than $500.00, obtained out of the original bid bond, cashier's or certified check, shall become the property of the Maine Turnpike Authority; otherwise the check will be returned to the undersigned.

The performance of said Work under this Contract will be completed during the time specified in Subsection 107.1.

It is agreed that time is of the essence of this Contract and that I (we) will, in the event of my (our) failure to complete the Work within the time limit named above, pay to Maine Turnpike Authority liquidated damages in the amount or amounts stated in the Specifications.

The undersigned is an Individual/Partnership/Corporation under the laws of the State of _____, having principal office at _____, thereunto duly authorized.

_____ *(SEAL)*

_____ *(SEAL)*

Affix Corporate Seal
or Power of Attorney
Where Applicable

_____ *(SEAL)*

By: _____

Its: _____

Information below to be typed or printed where applicable:

INDIVIDUAL:

(Name)	(Address)

PARTNERSHIP - Name and Address of General Partners:

(Name)	(Address)
(Name)	(Address)
(Name)	(Address)
(Name)	(Address)

INCORPORATED COMPANY:

(President)	(Address)
(Vice-President)	(Address)
(Secretary)	(Address)
(Treasurer)	(Address)

STATEMENT OF QUALIFICATIONS FORM

On company letterhead, please respond to the following questions. Include the original number and question in each response. Please limit responses to not more than two pages total. Contractor may provide supplemental material that shows their experience (resumes, marketing materials, etc.). On the final page, include the following statement, followed by the signature of a company representative with the authority to sign the proposal.

> The undersigned, under the pains and penalty of perjury, offers the information provided above as evidence of [CONTRACTOR'S NAME] qualifications to perform the Work as bid upon according to all the requirements of the Plans and Specifications.

1. Describe the Contractor's previous experience installing guide signs along Interstate highways, including signs on steel beams and signs on overhead sign structures.

2. Describe the Contractor's previous experience with Interstate Temporary Traffic Control, including nighttime traffic control.

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

KITTERY TO BIDDEFORD

CONTRACT AGREEMENT

This Agreement made and entered into between the Maine Turnpike Authority, and sometimes termed the "Authority", and _____

_____

herein termed the "Contractor":

WITNESSETH: That the Authority and the Contractor, in consideration of the premises and of the mutual covenants, considerations and agreements herein contained, agree as follows:

FIRST: The parties hereto mutually agree that the documents attached hereto and herein incorporated and made a part hereof collectively evidencing and constituting the entire Contract to the same extent as if herein written in full, are the Notice to Contractors, the Accepted Proposal, the Specifications, the Plans, this Agreement, the Contract Bond and all Addenda to the Contract Documents duly issued and herewith enumerated:

_____

_____

SECOND: The Contractor for and in consideration of certain payments to be made as hereafter specified, hereby covenants and agrees to perform and execute all of the provisions of this Contract and of all documents and parts attached hereto and made a part thereof, and at his own cost and expense to furnish and perform everything necessary and required to construct and complete, ready for its intended purpose, in accordance with the Contract and such instructions as the Engineer may give, acceptable to the Authority, in the times provided, all of the Work covered and included under Contract No. _____ covering _____ as herein described.

THIRD: In consideration of the performance by the Contractor of his covenants and agreements as herein set forth, the Authority hereby covenants and agrees to pay the Contractor according to the Schedule of Prices set forth in the Proposal with additions and deductions as elsewhere herein provided in the times and in the manner stated in the Specifications. This Agreement shall insure to the benefit of, and shall be binding upon the parties hereto, and upon their respective successors and assigns; but neither party hereto shall assign or transfer his interest herein in whole or in part without the consent of the other, except as herein provided.

IN WITNESS WHEREOF the parties to this Agreement have executed the same in quintuplicate.

AUTHORITY -

MAINE TURNPIKE AUTHORITY

By: _____

Title: CHAIRMAN

Date of Signature: _____

ATTEST:

_____
Secretary

CONTRACTOR -

_____
CONTRACTOR

By: _____

Title: _____

Date of Signature: _____

WITNESS:

_____

CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS that _____

of _____ in the County of _____ and State of _____

as Principal, and _____ a Corporation duly organized under the

laws of the State of _____ and having a usual place of business in _____

_____

As Surety, are held and firmly bound unto the Maine Turnpike Authority in the sum of _____Dollars ($_____.___), to be paid to said Maine Turnpike Authority, or its successors, for which payment, well and truly to be made, we bind ourselves, our heirs, executors, successors and assigns jointly and severally by these presents.

The condition of this obligation is such that the Principal, designated as Contractor in the foregoing Contract No. _____ shall faithfully perform the Contract on his part and satisfy all claims and demands incurred for the same and shall pay all bills for labor, material, equipment and all other items contracted for, or used by him, in connection with the Work contemplated by said Contract, and shall fully reimburse the Obligee for all outlay and expense which the Obligee may incur in making good any default of said Principal, then this Obligation shall be null and void; otherwise it shall remain in full force and effect.

Signed and sealed this _____ day of _____, A.D., 201___

Witnesses: CONTRACTOR

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

SURETY

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

_____ _____ *(SEAL)*

(Surety must attach copy of Power of Attorney showing authority of Office or Agent to execute bonds)

FINAL LIEN AND CLAIM WAIVER AND AFFIDAVIT

Upon receipt of the sum of _____, which sum represents the total amount paid, including the current payment for work done and materials supplied for Project No. _____, in _____, Maine, under the undersigned's Contract with the Maine Turnpike Authority.

The undersigned, on oath, states that the Final Payment of _____ is the final payment for all work, labor, materials, services and miscellaneous (all of which are hereinafter referred to as "Work Items") supplied to the said Project through _____and that no additional sum is claimed by the undersigned respecting said Project.

The undersigned, on oath, states that all persons and firms who supplied Work Items to the undersigned in connection with said Project have been fully paid by the undersigned for such Work Items or that such payment will be fully effected immediately upon receipt of this payment.

In consideration of the payment herewith made, the undersigned does fully and finally release and hold harmless the Maine Turnpike Authority, and its Surety, if any, from any and all claims, liens or right to claim or lien, arising out of this Project under any applicable bond, law or statute.

It is understood that this Affidavit is submitted to assure the Owner and others that all liens and claims relating to the Work Items furnished by the undersigned are paid.

_____
(Contractor)

By: _____

Title: _____

State of MAINE

County of _____

I, _____, hereby certify on behalf of _____
(Company Officer) *(Company Name)*

its _____, being first duly sworn and stated that the foregoing representations are
(Title)

are true and correct upon his own knowledge and that the foregoing is his free act and deed in said capacity and the free act and deed of the above-named

_____

.

(Company Name)

The above-named, _____, personally appeared before me this ____ day of _____ and swears that this is his free act and deed.

(SEAL)

_____
Notary Public

My Commission Expires: _____

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

PART I – SUPPLEMENTAL SPECIFICATIONS

(Rev. November 10, 2016)

The Supplemental Specifications are available on the Maine Turnpike Authority website at http://www.maineturnpike.com/Projects-Planning/Construction-Contracts.aspx

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

PART II – SPECIAL PROVISIONS

PART II - SPECIAL PROVISIONS

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

PART II - SPECIAL PROVISIONS

All work shall be governed by the Maine Department of Transportation Standard Specifications, Revision of November 2014, except for that work which applies to sections of the Maine Department of Transportation Standard Specifications which are amended by the Maine Turnpike Supplemental Specifications and the following modifications, additions and deletions.

General Description of Work

The work consists of removing, replacing and installing new highway signs and sign overlays along the Maine Turnpike from south of Exit 1 to north of Exit 19 in the Kittery to Arundel segment of the Maine Turnpike in the City of Biddeford and the Towns of Kittery, York, and Wells. The work includes furnishing, installing and salvaging aluminum signs, steel H-beam sign supports, concrete foundations, maintenance of traffic and all other work incidental thereto in accordance with the Plans and Specifications. The work also includes the installation of three ground mounted dynamic message signs (DMS) on steel H-beams with solar power systems.

Plans

The drawings included in these Contract Documents, and referred to as the Plans, show the general character of the work to be done under this Contract. They bear the general title "Contract 2019.03 - Guide Sign Modifications, Phase IV – Maine Turnpike Exits 1-19". The right is reserved by the Resident to make such minor corrections or alterations in the Plans as he deems necessary without change in the unit prices on the Schedule of Prices of the Proposal.

101.2 Definition

Holidays

The following is added after Memorial Day in the General Provisions:

Independence Day 2019 (Fourth of July)	12:01 p.m. preceding Wednesday to 6:00 a.m. the following Monday.

103.4 Notice of Award

The following sentence is added:

The Maine Turnpike Authority Board is scheduled to consider the Contract Award on March 28, 2018.

104.3.8 Wage Rates and Labor Laws

Section 104.3.8 Wage Rates and Labor Laws has been amended as follows:

The fair minimum hourly rates determined by the State of Maine Department of Labor for this Contract are as follows:

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

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

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

Title of Project --------MTA 2019.03-Guide Sign Modifications, Phase IV

Location of Project --Various Locations, York County

2019 Fair Minimum Wage Rates
Heavy & Bridge York County

Occupation Title	Minimum Wage	Minimum Benefit	Total	Occupation Title	Minimum Wage	Minimum Benefit	Total
Backhoe Loader Operator	$26.48	$4.96	$31.44	Laborer - Skilled	$19.96	$5.32	$25.28
Boilermaker	$24.00	$9.00	$33.00	Line Erector - Power/Cable	$31.00	$5.86	$36.86
Bulldozer Operator	$20.00	$3.71	$23.71	Loader Operator - Front-End	$23.00	$3.31	$26.31
Carpenter	$22.00	$4.28	$26.28	Mechanic- Maintenance	$22.25	$3.78	$26.03
Carpenter - Rough	$22.25	$8.56	$30.81	Mechanic- Refrigeration	$25.71	$5.09	$30.80
Communication Equip Installer	$23.00	$1.64	$24.64	Millwright	$24.50	$9.80	$34.30
Comm Transmission Erector	$19.80	$3.49	$23.29	Painter	$33.75	$0.42	$34.17
Concrete Mixing Plant Operator	$22.11	$4.92	$27.03	Paver Operator	$20.00	$0.00	$20.00
Crane Operator =>15 Tons)	$27.75	$4.74	$32.49	Pipe/Steam/Sprinkler Fitter	$27.00	$4.49	$31.49
Crusher Plant Operator	$17.38	$3.12	$20.50	Pipelayer	$23.00	$1.14	$24.14
Diver	$32.00	$6.91	$38.91	Plumber (Licensed)	$25.00	$4.26	$29.26
Driller - Well	$19.83	$2.66	$22.49	Plumber Helper/Trainee	$19.00	$3.10	$22.10
Earth Auger Operator	$25.84	$5.78	$31.62	Rigger	$22.50	$6.57	$29.07
Electrician - Licensed	$30.07	$15.60	$45.67	Roller Operator - Earth	$22.11	$2.77	$24.88
Electrician Helper/Cable Puller	$17.50	$5.46	$22.96	Roller Operator - Pavement	$19.00	$1.06	$20.06
Excavator Operator	$25.50	$4.27	$29.77	Sheet Metal Worker	$20.00	$4.11	$24.11
Fence Setter	$15.00	$2.00	$17.00	Stone Mason	$21.00	$0.95	$21.95
Flagger	$13.00	$0.00	$13.00	Truck Driver - Light	$17.00	$1.17	$18.17
Ironworker - Reinforcing	$28.71	$0.00	$28.71	Truck Driver - Medium	$19.00	$3.37	$22.37
Ironworker - Structural	$25.38	$3.79	$29.17	Truck Driver - Heavy	$19.00	$2.06	$21.06
Laborers (Helpers & Tenders)	$18.19	$2.23	$20.42	Truck Driver - Tractor Trailer	$21.13	$4.07	$25.20

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

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

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

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

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

Determination No: **HB-006-2019**

A true copy

Filing Date: **February 21, 2019**

Attest: Scott R. Cotnoir

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

Expiration Date: **12-31-2019**

BLS(Heavy & Bridge York)

104.4.6 Utility Coordination

This Subsection is amended by the addition of the following:

These Special Provisions outline the arrangements which have been established by the Authority for coordination of the work to be accomplished by the utilities. The scope and schedule of utility relocation work is noted herein. The Contractor shall plan and conduct his work accordingly.

General

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

The Contractor shall plan and conduct his operations in accordance with the following utility schedule. The Contractor must comply with all OSHA regulations pertaining to work adjacent to utility wires. The Contractor shall plan and conduct his work accordingly.

The following utilities are located within the Project limits. The Contractor shall ascertain the location of the existing utilities and any other necessary information by direct inquiry at the office of the following utility owners:

UTILITIES

AT&T Co (Portland Office)
45 Forest Ave
Portland, ME 04101
ATT: Alice Coughlan (207) 879-5050 acoughlan@att.com

AT&T Co (Manchester, NH Office)
45 Forest Ave
Portland, ME 04101
ATT: Mark Larchar (207) 213-9248 ml191h@att.com

Cable Television of the Kennebunks
PO Box 2799
Kennebunkport, ME 04046
ATTN: Bruce Bolger (207) 967-9746 bruce.bulger@adelphia.com

Central Maine Power Company
83 Edison Drive
Augusta, ME 04336
ATTN: John Rugan (207)453-5605, Cell (207)242-8669

Charter Communications

118 Johnson Rd
Portland, ME
ATTN: Peter DeTeson, Coordinator (207) 318-6542 peter.detesco@charter.com

Comcast (Berwick Area)
334 B Calef Highway
Epping, NH 03042
ATTN: Scott Letzelter (603) 765-3372 Michael_Letzelter@comcast.com

FairPoint Communications - Northern New England Telephone Operations LLC
5 Davis Farm Road
Portland, ME 04103
ATTN: mdot_requests@fairpoint.com
ATTN: Morris Leathers (207) 342-4280, Cell (207) 446-5371

Granite State Gas Transmission, Inc.
325 West Road
Portsmouth, NH 03810-0508
ATTN: Rick Ahlin (800) 542 0967 ahlin@unitil.com

GWI/Biddeford Internet Corp.
43 Landry St
Biddeford, ME 04005
ATTN: Keith Ellis, GWI Technical Administrator (207) 494-2136 keithellis@staff.gwi.net

Kennebunk Light & Power District
4 Factory Pasture Lane
Kennebunk, ME 04043
ATTN: Todd Shea, General Manager (207) 985-3311 tshea@klpd.org

Kennebunk, Kennebunkport & Wells Water District
PO Box 88
Kennebunk, ME
ATTN: Jamie Paschal, District Engineer (207) 985-3385 jpaschal@kkw.org

Kittery Sewer Department
200 Rogers Road
Kittery, ME 03904
ATT: George Kathios (207) 439-4646 gkathios@kitteryme.org

Kittery Water District
17 State Road
Kittery, ME 03904
ATTN: Michael S Rogers (207) 439-1128 mikerkwd@comcast.net

Kittery, Town of
200 Rogers Road
Kittery, ME 03904
ATT: Mary-Ann Conroy (207) 439-0333 mconroay@kitteryme.org

MaineCom Services
245 Commercial Street Site 203
Portland, ME 04101
ATTN: John Costa (207) 358-7501 jcosta@mainecom.com

Maine Fiber Company
482 Congress Street, Suite 100
Portland, Me 04101
ATTN: Tim LaBreck (207) 956-6657 tlabreck@mainefiberco.com

Maritimes Northeast Pipeline
547 Lincoln St
Richmond, ME 04357
ATTN: Lara Baily (207) 737-8249 lara.bailey@enbridge.com

Maine Department of Transportation, State of
RE: Traffic Signals
16 State House Station
Augusta, ME 04333-0016
ATTN: Mike Delois (207) 624-xxxx mdelois@maine.gov

Oxford Networks
491 Lisbon Street
Lewiston, ME 04240
ATTN: Michael Ellingwood (207) 333-3471 mellingwood@oxfordnetworks.com

Portland Cellular Partnership d/b/a Verizon Wireless
18 Flanders Rd
Westborough, MA 01581
ATTN: Kacey Looney (508) 769-4607

Revolution Networks (NECAP)
ATTN Michael Ellingwood (207) 333-3471

Spectrum Cable
118 Johnson Road
Portland, ME 04102
ATTN: Mark Pelletier (207) 253-2324

Time Warner Cable (Portland Office)
118 Johnson Rd
Portland, ME 04102
ATTN: Don Johnson (207) 253-2291 don.johnson@twcable.com

US Geological Survey
196 Whitten Rd
Augusta, ME 04330
ATTN: Nicholas Stasulis (207) 626-6612 nstasuli@usgs.gov

US Sprint
400 Taylor St
Springfield, MA 01105
ATTN: Michael Hanifan (413) 755-0350 michael.j.hanifan@sprint.com

Unitil Corp.
376 Riverside Industrial Parkway
Portland, ME 04103
ATTN: Kelly Brown (207) 541-2572 brownk@unitil.com

Unitil Corp.
1075 Forest Ave
Portland, ME 04103
ATTN: Sam Murray (800) 524-4486 murray@unitil.com

York Sewer District
P.O Box 1039
York Beach, ME 03910
ATTN: Tim Haskett (207) 363-4232 tim@yorksewer.org

York Water District
P.O Box 447
York, ME 03909
ATTN: Don Neumann (207) 363-2265 dneumann@yorkwaterdistrict.org

York, Town of
Dean Lessard, Director of Public Works
(207) 363-1000 dlessard@yorkmaine.org

104.4.7 Cooperation With Other Contractors

This Subsection is amended by the addition of the following:

Adjacent contracts currently scheduled for the 2019 construction season include:

MTA Contract 2018.20 – York Toll Plaza, Mile 8.8

MTA Contract 2019.06 – Southern Bridge & Culvert Repairs; Mountain Road, N Berwick Road, Ogunquit River Culvert, and Merriland River culvert

MTA Contract 2019.07 – Wells Exit 19/Route 109 Improvements

MaineDOT Project AC-IM-1927(000)E – Piscataqua River Bridge over Piscataqua River

105.8.2 Permit Requirements

The Project is subject to the requirements of the Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharge from Construction Activity, as promulgated by the US Environmental Protection Agency (US EPA) and Administrated by the Maine Department of Environmental Protection (DEP).

A Notice of Intent (NOI), has not been filed or required for this project. However, the Contractor is still responsible to conduct the work in accordance with erosion and sedimentation control best practices as outlined in this Contract.

The Contractor shall prepare a LOD plan illustrating the Contractor's proposed limit of earthwork disturbance. The LOD plan shall show all construction access locations, material and temporary waste storage locations, as well as include the Contract limits of earthwork disturbance. All applicable erosion and sedimentation control devices needed shall be detailed on the Contractor's LOD plan and are not limited to those devices shown on the Contract LOD plan. **This Plan shall be submitted for review and approval, to the Resident within 14 days of Contract award.** Payment for creating, revising, and completing this plan shall be incidental to Item 659.10, Mobilization.

The LOD for this Contract, has been estimated to be less than 0.90 acres.

At any time during the Contract, if the Limit of Disturbance needs to be adjusted to accommodate construction activities, the Contractor shall resubmit the LOD plan (including any additional erosion and sedimentation control measures needed) to the Resident for review and approval prior to any additional disturbance taking place:

- If the cumulative area of disturbance exceeds the estimated LOD noted above, by less than one acre, the Resident shall have a minimum of five (5) working days to approve the revised LOD plan.
- If the cumulative area of disturbance exceeds the estimated LOD noted above, by over one acre, the Resident shall first approve of the plan and then possibly resubmit the NOI for MaineDEP approval. The approval may take a minimum of 21 working days.

Compliance with the erosion and sedimentation control requirements outlined in this Contract is required by the Contractor.

The Contractor shall comply with the conditions outlined in the Maine Pollutant Discharge Elimination System General Permit for stormwater discharge associated with construction activity.

The Contractor shall indemnify and hold harmless the Maine Turnpike Authority or its agents, representatives and employees against any and all claims, liabilities or fines arising from or based on the violation of the above noted permits.

This Project is also subject to the requirements of the Maine Pollutant Discharge and Elimination System (MPDES) General Permit for the Discharge of Stormwater from MTA's Municipal Separate Storm Sewer Systems (MS4), because it is located within an Urbanized Area (UA) as defined by the 2000 census by the U.S. Bureau of the Census. MS4 compliance requires all Contractors to be properly trained in Erosion and Sedimentation Control (ESC) measures (as per Special Provision Subsections 105.8.1 and 656.07) and implement measures to reduce pollutants in stormwater runoff from construction activities.

107.1 Contract Time and Contract Completion Date

This Subsection is amended by the addition of the following:

All work south of MM 3.4 shall be substantially completed on or before October 1, 2019. All underground work shall be substantially completed on or before November 1, 2019. Supplemental Liquidated Damages on a calendar day basis in accordance with Subsection 107.8 shall be assessed for each calendar day that substantial completion is not achieved for these requirements.

All work at all locations in this Contract shall be completed on or before June 1, 2020.

107.1.1 Substantial Completion

This Subsection is amended by the addition of the following:

Substantially complete for work south of MM 3.4 shall be defined by the Authority as the following:

- This list of work applies to project sites that are located south of mile point 3.4 along the Maine Turnpike (including work in New Hampshire) along both the northbound and southbound roadways and ramps:
- All proposed guide signs and sign overlay panels shall be installed.
- All existing signs to be removed shall be removed from the project area.
- All proposed steel beam replacements shall be installed.
- All incidental repairs to overhead sign structure foundations and vegetation clearing shall be completed.
- All proposed warning signs shall be installed, and all proposed warning signs to be relocated shall be relocated.
- The proposed conduit system, foundation, and gravel pull off area at the Exit 2 southbound ramps shall be completed.
- All work described shall be accepted by the Resident Engineer.

Substantially complete for underground work shall be defined by the Authority as the following:

- All proposed concrete foundations shall be installed and backfilled.

- All existing foundations to be removed shall be removed and the ground restored/backfilled in accordance with the contract requirements.
- All incidental repairs to overhead sign structure foundations shall be completed.
- All wood post supports shall be installed and backfilled.
- All proposed underground conduits and pull boxes for DMS installations shall be completed.
- All proposed guardrail, end terminals, shoulder widening, and end treatments shall be installed and completed.
- The removal and ground restoration for existing PCMS concrete pads shall be completed.
- All work described shall be accepted by the Resident Engineer.

Supplemental Liquidated damages on a calendar day basis in accordance with Subsection 107.8 shall be assessed for each calendar day that substantial completion is not achieved.

107.3.2 Night Work

The Contractor shall be responsible to determine and adhere to the local regulations pertaining to night work time restrictions and noise limitations. The Contractor shall plan his work accordingly.

107.8 Supplemental Liquidated Damages

This Subsection is amended by the following:

Supplemental liquidated damages on a calendar day basis shall be assessed in the amount of $2,500 per calendar day for the first 30 calendar days following the substantial completion deadline indicated in 107.1, increasing to $5,000 per calendar day for each calendar day thereafter.

SPECIAL PROVISION

SECTION 205

SHOULDER RECONSTRUCTION

(Widening of Existing Shoulder)
(Widening of Existing Shoulder Pavement)

205.01 Description

The following paragraph is added:

This work shall consist of widening existing outside shoulders as shown on the plans in areas of proposed single rail guardrail, or as approved by the Resident. The widening shall be done by excavating, furnishing, placing, grading and compacting aggregate subbase course gravel, granular borrow, common borrow, loam, seed, mulch and asphalt grindings in accordance with the thickness and typical sections shown on the Plans.

This work shall also consist of widening existing outside paved shoulders in areas where the shoulder width is to be increased 4-foot in width as shown in the contract documents. The widening of existing paved shoulders shall be done by excavating, furnishing, placing, grading and compacting aggregate subbase course gravel, granular borrow, common borrow, loam, seed, mulch in accordance with the thickness and typical sections shown on the Plans. Hot Bituminous Pavements shall be placed as per Section 403.

The following Subsections are added:

205.021 Granular Borrow

Granular borrow shall be material meeting the requirements of Subsection 703.19.

205.022 Fill Material

Fill material shall be existing excavation or common borrow from an outside source.

205.023 Asphalt Grindings

The grindings shall be reprocessed (crushed) to meet the following gradation:

Sieve Designation	Grading
3/4”	100
1/2”	95-100
No.4	50-80
No.50	18-28
No. 200	3-10

205.024 Aggregate Subbase Course-Gravel

Aggregate subbase course-gravel shall be material meeting the requirements of Subsection 703.06.

205.025 Hot Bituminous Pavement

Hot Bituminous Pavement shall be material meeting the requirements of Section 401 – Hot Mix Asphalt Pavement.

205.0511 Compaction - Asphalt Grindings

The asphalt grindings shall be placed and compacted to a minimum thickness of three inches unless otherwise designated by the Resident.

205.06 Method of Measurement

The following sentence is added:

The quantity of Widening of Existing Shoulder and Widening of Existing Paved Shoulder measured for payment shall be per linear foot at locations noted on the Plans.

Common Borrow will be measured in accordance with Section 203 of these Specifications. Bituminous pavement will be measured in accordance with Section 403 of these Specifications.

205.11 Basis of Payment

The following paragraph is added:

The accepted quantity of Widening Existing Shoulder and Widening of Existing Paved Shoulder will be paid for at the Contract unit price per linear foot which shall include the asphalt grindings, excavation, aggregate subbase course gravel, granular borrow, loam, seed and mulch.

Common Borrow will be paid for in accordance with Section 203 of these Specifications.

Bituminous pavement will be paid for in accordance with Section 403 of these Specifications.

Payment will be made under:

Pay Item		Pay Unit
205.511	Widening of Existing Shoulder	Linear Feet
205.53	Widening of Existing Shoulder Pavement	Linear Feet

SPECIAL PROVISION

SECTION 206

STRUCTURAL EXCAVATION

206.02 Construction Methods

The following paragraphs are added:

There are no approved waste storage areas or waste areas within the Project limits. Unsuitable materials shall be disposed of off-site in accordance with Subsection 203.06.

SPECIAL PROVISION

SECTION 606

GUARDRAIL

(31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks, Single Faced)
(31" W-Beam Guardrail – Mid-way Splice (8' Steel Posts, 8" Offset Blocks, Single Faced)
(31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks, Double Faced)

606.01 Description

The section is amended by the addition of the following:

This work shall consist of furnishing and installing guardrail components the required locations in accordance with the Specifications and in reasonably close conformity with the lines and grades shown on the Plans. The types of guardrail are designated as follows:

31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks)
31" W-Beam Guardrail – Mid-way Splice (8' Steel Posts, 8" Offset Blocks)

606.02 Materials

The section is amended by the addition of the following:

Steel posts shall be 7 feet or 8 feet long as specified in the plans.

The guardrail elements shall be per the Components' List found on Sheet No. 2 of 2 of draft Drawing SGR47 – 31" W-Beam Guardrail with Standard 8" Offset Block in the Task Force 13 Report noted above and/or as noted in the Contract Documents unless noted otherwise.

606.04 Rails

The section is amended by the addition of the following:

Height of top of rail shall be 31" measured from final grade. Height transition from 31" W-Beam, mid-spliced guardrail to existing guardrail shall occur over a 25' length.

606.08 Method of Measurement

The section is amended by the addition of the following:

31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks) and 31" W-Beam Guardrail – Mid-way Splice (8' Steel Posts, 8" Offset Blocks) will be paid for at the contract unit price per linear foot of rail satisfactorily installed and accepted.

606.09 Basis of Payment

The section is amended by the addition of the following:

The accepted quantity of 31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks) and 31" W-Beam Guardrail – Mid-way Splice (8' Steel Posts, 8" Offset Blocks) will be paid for at the contract unit price per linear foot of rail and shall be full compensation for furnishing all labor, equipment and materials necessary to complete the work.

Payment will be made under:

Pay Item		Pay Unit
606.13	31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks, Single Faced)	Linear Foot
606.131	31" W-Beam Guardrail – Mid-way Splice (8' Steel Posts, 8" Offset Blocks, Single Faced)	Linear Foot
606.132	31" W-Beam Guardrail – Mid-way Splice (8' Steel Posts, 8" Offset Blocks, Double Faced)	Linear Foot

SPECIAL PROVISION

SECTION 606

GUARDRAIL

(Guardrail –Tangent Terminal – 31" W-Beam Guardrail)

606.01 Description

The following sentences are added:

This work shall consist of furnishing and installing a MSKT (MASH-compliant Sequential Kinking Terminal) for use with the 31" W-Beam Guardrail – Mid-way Splice (7' Steel Posts, 8" Offset Blocks, Single Faced) as manufactured by Road Systems, Inc., 3616 Old Howard County Airport Road, Big Spring, Texas 79720, (432) 263-2435, and retroreflective adhesive sheeting in accordance with these Specifications and the manufacturer's installation instructions, and in reasonably close conformity with the lines and grades as shown on the Plans or as approved by the Resident.

606.02 Materials

The following sentence is added:

31" W-Beam Guardrail – Midway Splice Tangent Terminal components shall be comprised of those shown in the manufacturers installation instructions. 8" blocks shall be used.

Reflective sheeting shall meet the requirements of Subsection 719.01, Reflective Sheeting – minimum ASTM Type XI; 3M™ Diamond Grade™ DG³ Reflective Sheeting Series 4000 or approved equal, color white.

The contractor shall request for the impact face object marker, black chevron on yellow background, to be included in the shipped materials when installation is on the left side of roadway.

The following Subsections are added:

606.03 Posts

Wood offset blocks shall be toe-nailed in two locations to the wood post to prevent the blocks from moving.

606.035 Construction Requirements

The Contractor shall submit a set of installation drawings to the Resident for approval. The system shall be installed in accordance with the manufacturer's recommendation and the installation drawings.

A reflective adhesive sheeting shall be applied to the nose of the MSKT System after installation.

606.041 Reflective Sheeting

The color for the reflective sheeting shall be silver (white) when installed on the right shoulder and shall be black chevron on yellow background only when installed on the left shoulder.

606.08 Method of Measurement

The second paragraph is amended by the addition of: "31" W-Beam Guardrail – Midway Splice Tangent Terminal, " after the words "Terminal section, ".

31" W-Beam Guardrail – Midway Splice Tangent Terminal will be measured by each unit satisfactorily complete in place and accepted.

606.09 Basis of Payment

The first paragraph is amended by the addition of: "31" W-Beam Guardrail – Midway Splice Tangent Terminal, " after the words "Terminal section, ".

The second paragraph is amended by the addition of: ", 31" W-Beam Guardrail – Midway Splice Tangent Terminal, " after the words "NCHRP 350 end treatments ".

The retroreflective sheeting will not be measured separately for payment, but shall be incidental to the 31" W-Beam Guardrail – Midway Splice Tangent Terminal item.

Payment will be made under:

Pay Item		Pay Unit
606.1306	31" W-Beam Guardrail – Midway Splice Tangent Terminal	Each

SPECIAL PROVISION

SECTION 606

GUARDRAIL

(Terminal End – Anchored End – 31" W-Beam Guardrail)

606.01 Description

The section is amended by the addition of the following:

This work shall consist of furnishing and installing Terminal End – Anchored End – 31" W-Beam Guardrail end treatment in accordance with these Specifications, the AASHTO-AGC-ARBTA Joint Committee Task Force 13 Report: A Guide to Standardized Highway Barrier Hardware, Drawing SEW31 in AASHTO Manual for Assessing Safety Hardware (MASH) approval letter B-256; and in reasonably close conformity with the lines and grades as shown on the Plans or as approved by the Resident.

606.02 Materials

The following sentences are added:

The guardrail elements shall be per the Components' List found on Sheet No. 2 & 3 of 3 of Drawing SEW31 – Trailing-end Anchorage System in the Task Force 13 Report noted above and/or as noted in the Contract Documents. The component RWM14a shall be modified to a length of 9'-4½" measured from the center of the Midway Splice to the center of the last guardrail post.

The following Subsection is added:

606.042 Terminal End - Anchored End

The following sentences are added:

Installation of the Terminal End – Anchored End - 31" W-Beam Guardrail end treatment shall be in strict accordance with these plans and specifications, the AASHTO-AGC-ARBTA Joint Committee Task Force 13 Report and the Details on Sheet No. 1 of 3 of Drawing SEW31 – Trailing-End Anchorage System.

606.08 Method of Measurement

The second paragraph is amended by the addition of: ", Terminal End - Anchored End – 31" W-Beam Guardrail," after the words "Terminal section,".

606.09 Basis of Payment

The first paragraph is amended by the addition of: ", Terminal End - Anchored End – 31" W-Beam Guardrail," after the words "Terminal section,".

The second paragraph is amended by the addition of: “, Terminal End - Anchored End – 31” W-Beam Guardrail, and” after the words “NCHRP 350 end treatments”.

Payment will be made under:

Pay Item		Pay Unit
606.1351	Terminal End - Anchored End – 31” W-Beam Guardrail	Each

SPECIAL PROVISION

SECTION 606

GUARDRAIL

(Terminal End - Remove and Reset)
(Terminal End - Remove and Stack)

606.01 Description

The following sentences are added:

This work shall also consist of removing existing terminal end elements, component parts and hardware, and resetting to the proper location.

This work shall also consist of removing existing terminal end elements, component parts and hardware, and stacking at the Kennebunk Maintenance Area Mile 25 Northbound.

In locations where new guardrail is being installed on the departure side, terminal ends are required as end treatments. These terminal ends shall be provided from the ones designated under this item to be stacked. Installation of these terminal ends shall also be included under this item.

606.08 Method of Measurement

The following sentences are added:

Terminal End - Remove and Reset will be measured by each unit satisfactorily reset.

Terminal End - Remove and Stack will be measured by each unit satisfactorily stacked.

Terminal ends removed, but not suitable to be reset or stacked shall become property of the Contractor. Payment shall be incidental to the other guardrail pay items.

606.09 Basis of Payment

The following paragraphs are added:

The accepted quantity of Terminal End – Remove and Reset will be paid for at the Contract unit price bid which shall be full compensation for removing and resetting the terminal end and all equipment, labor and incidentals necessary to complete the work.

The accepted quantity of Terminal End – Remove and Stack will be paid for at the Contract unit price bid which shall be full compensation for removing and stacking the terminal end and all equipment, labor and incidentals necessary to complete the work. This price shall be full compensation for removing all rails, posts, offset brackets, nuts, bolts, washers, hardware, all labor, transportation and all other incidentals necessary to complete the work. No additional compensation will be made for furnishing terminal ends from the stacked location and installing them on the

departure side of the new guardrail, but shall be incidental to the Remove and Stack Terminal End item.

Payment will be made under:

Pay Item		Pay Unit
606.2651	Terminal End - Remove and Reset	Each
606.2652	Terminal End - Remove and Stack	Each

SPECIAL PROVISION

SECTION 606

GUARDRAIL

(Delineator Post)

606.01 Description

The following paragraphs are added:

This work shall also consist of furnishing and installing new delineator posts and/or removing and resetting existing delineator posts within the Contract limits. The existing reflectorized delineator panels on reset posts shall be removed and replaced with new reflectorized delineator panels as required by the Resident.

Existing and reset delineator posts shall be located as follows:

Outside Shoulder:

- One at guardrail trailing ends (green delineator).
- Two at guardrail approach ends (one red delineator on first post and one red delineator on angle points.)
- One at guardrail attachments to endposts (white delineator).

Median:

- One at guardrail trailing ends (green delineator, facing traffic).
- Two at guardrail approach ends (one red delineator on first post of CAT units, green on guard rail side, red on median opening side; and one red (both sides) delineator at angle point.)
- One at all other median guardrail angle points (red on both sides).

Other Locations:

- One at culvert outlets (green delineator).
- Twenty per mile evenly spaced at the edge of outside shoulder (white delineator).
- One at electrical junction boxes not associated with another item (red delineator).
- One at communication only junction boxes not associated with another item (orange delineator).

Delineator posts that do not exist in the locations described above, shall be supplied and installed by the Contractor. The installation of the delineator post shall include the demountable reflectorized delineator panel.

Delineator posts shall be bolted to the back of the first wood post in the FLEAT 350's, CAT systems and FLEAT MT systems.

606.02 Materials

The following paragraphs are added:

Non-guardrail guardrail delineator posts shall conform to Subsection 606.02.

Guardrail delineator posts for the approach ends of 350 compliant end treatments shall be fabricated of a flexible, durable, non-discoloring polyethylene plastic capable of recovering from repeated impacts and resistant to solar degradation. The posts shall be a minimum of 2-inches in diameter, shall be ovalized at the top of the post to allow application of reflective sheeting, and shall be a maximum length of 36 inches. Color of the guardrail delineator posts shall be grey. Posts shall be capped at the top with a flexible rubber cap; Safe-Hit Flexible Guardrail Delineator Post or approved equal.

Reflective sheeting shall be applied to the top of the post and the color of the sheeting shall be as described in section 606.01. Dimensions of sheeting shall be 3-inches by 8-inches and shall conform to ASTM Type XI; 3MTM Diamond GradeTM DG3 Reflective Sheeting Series 4000 or approved equal.

Guardrail delineator posts shall be fastened to guardrail posts with two fasteners. For wooden posts, two 3-inch by 3/8-inch lag screws with 5/8-inch flat washers shall be used. For steel guardrail posts, two self-drilling ¼-inch by 2 inch screws with 5/8-inch flat washers shall be used.

The demountable reflectorized delineator panel shall meet the requirements of Subsection 719.06. Delineator panel shall be rectangles measuring 8" x 3".

606.03 Posts

The following paragraphs are added:

The installation of delineator posts shall conform to Subsection 606.03 for guardrail delineator posts.

The top of delineator posts associated with guardrail shall be installed 5’-0” (60”) above edge of pavement elevation. White delineator posts for mile delineation shall be 4’-6” (54”) above edge of pavement elevation. Delineators shall be installed four feet from edge of pavement except those delineating end treatments, culverts and electrical items.

A mock-up of the guardrail delineator posts shall be submitted to the Resident for approval prior to installation.

Any materials damaged by the Contractor’s operations shall be replaced at no additional cost to the Authority.

Top of the delineator panel shall be flush with the top of post.

606.08 Method of Measurement

The following paragraphs are added:

Delineator Posts shall be measured by each unit installed and accepted.

606.09 Basis of Payment

The following sentences are added:

The accepted quantity of Delineator Posts will be paid for at the Contract unit price per each which price shall be full compensation for the post, specified delineator or mile marker panel, complete in place.

Payment will be made under:

Pay Item		Pay Unit
606.353	Delineator Post	Each

SPECIAL PROVISION

SECTION 619

MULCH

(Mulch – Plan Quantity)
(Temporary Mulch)

619.01 Description

The first paragraph is modified by the addition of the following:

"as a temporary or permanent erosion control measure" after the word "mulch".

Add the following sentence at the end of the first paragraph:

Refer to Section 656 Temporary Soil and Water Pollution Control, for more information on Temporary Mulch.

619.03 General

The first paragraph is deleted and replaced with the following:

Cellulose fiber mulch shall not be used within 200 feet of a wetland or stream. The limits shall be 200 feet up station and down station of the wetland or streams as well as the slopes adjacent to the stream. The application of hay or straw mulch with an approved binder shall be used at these locations to prevent erosion.

The use of cellulose fiber mulch will only be allowed at other areas with the approval of the Resident. The Contractor may be required to demonstrate that the material may be applied in a manner that will prevent erosion and will aid in the establishment of permanent vegetation. The Resident reserves the right to require the use of hay or straw mulch at all locations if he determines that the cellulose mulch is ineffective. Cellulose fiber mulch is not acceptable for winter stabilization.

610.06 Method of Measurement

The following sentence is added:

Temporary Mulch will be paid for by the lump sum.

656.10 Basis of Payment

Temporary Mulch will be paid for at the Contract price per lump sum which shall be full compensation for furnishing and spreading the Temporary Mulch as many times as necessary as determined by the Contractor's operations and staging. The price shall also include the additional mulch netting and snow removal necessary during the winter months.

Payment will be made under:

Pay Item		Pay Unit
619.1201	Mulch – Plan Quantity	Unit
619.1202	Temporary Mulch	Lump Sum

SPECIAL PROVISION

SECTION 626

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

(Quazite Junction Box)

626.02 General

The following paragraph is added:

Junction boxes for the electrical and communication conduit associated with the toll equipment and intelligent transportations systems shall be polymer concrete as manufactured by QUAZITE® a division of Hubbell Power Systems. The boxes shall be 36" x 24" and 21" deep. The words ELECTRICAL, LIGHTING, TRAFFIC, or COMMUNICATION shall be stamped on the cover as noted in the Plans or directed by the Resident. The boxes shall have an 8,000 lb. load rating. All existing QUAZITE® Junction Boxes in useable condition shall be removed and relocated as directed by the Resident Engineer.

Junction boxes for the electrical associated with highway lighting shall be precast concrete. All existing Precast Junction Boxes in useable condition shall be removed and relocated as directed by the Resident Engineer. New boxes shall have the word LIGHTING stamped on the cover.

626.04 Method of Measurement

The following sentence is added:

Quazite junction box shall be measured by each unit in place and accepted existing or new.

Precast junction box shall be measured by each unit in place and accepted existing or new.

626.05 Basis of Payment

The words, "polymer concrete" shall be added after the words, "precast concrete" in the second sentence of the second paragraph.

Payment will be made under:

Pay Item		Pay Unit
626.12	Quazite Junction Box	Each

SPECIAL PROVISION

SECTION 626

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

(36-inch Diameter Foundation)

626.034 Concrete Foundations

Replace the first paragraph with the following:

No soil borings, subsurface exploration or other geotechnical engineering was performed for ground mounted signs during the design phase of this project. Foundation sizes were determined based on the 2002 edition of the MaineDOT Standard Details based on the assumption that the soils at each location are capable of a bearing pressure of 1.5 tons per square foot (tsf). Unless the actual soil conditions require another foundation type, foundations shall consist of either precast steel reinforced concrete foundations or cast-in-place steel reinforced concrete drilled shafts. Foundation lengths indicated are embedment depths below lowest adjacent grade. Reinforcing shall be as specified on the associated chart in the 2014 edition of the MaineDOT Standard Details, 626(02) and 626(03).

Replace the eleventh paragraph (that starts with "Concrete foundations designated to be modified or removed….") with the following:

Ground mounted sign foundations designated to be removed shall be removed to a depth of 24 inches below the natural grade. The removal shall include removal and off-site disposal of all concrete, steel reinforcing, anchor rods and all debris resulting from the removal. Once removal has been completed, the area shall be backfilled to original grade by the addition of granular material and loam, or loam only, depending on the extent of the removal required. The area shall then be seeded in accordance with Section 618.

626.04 Method of Measurement

Replace the second paragraph with the following:

Foundation items 626.31, 626.32, 626.33, and 626.3303 will be measured by each unit.

Add the following paragraph:

Where existing concrete foundations are called to be removed, the removal will not be measured but will be incidental to the cost of the new foundations being installed nearby or, if no new foundations will be installed, the cost will be incidental to the removal of the sign. In the same way, the excavation, backfill, loam and seeding for removed foundations will not be measured but will be incidental to the cost of the new foundations or the sign removal.

626.05 Basis of Payment

Replace the first paragraph with the following:

The accepted quantity of foundations will be paid for at the contract unit price for each type of foundation. This payment shall include: concrete, anchor bolts, reinforcing steel, conduit within the foundation and extending 12 inches from the foundation (as required), loam, seeding, mulching and all incidentals necessary to complete the work. This work shall also include the removal of existing concrete foundations to a depth of 24 inches below natural grade, backfill, loam, seeding, mulching, and all incidentals, tools, equipment, and labor necessary to remove the existing foundations.

Payment will be made under:

Pay Item		Pay Unit
626.3303	36-inch Diameter Foundation	Each

SPECIAL PROVISION

SECTION 626

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

(Remove and Stack Concrete Pad)

650.01 Description

The following sentence is added:

This work shall consist of removing and salvaging existing concrete pads.

626.035 Concrete Pads

The following paragraphs are added:

At locations show on the Plans, existing concrete pads for portable changeable message signs shall be removed intact from the existing locations and stacked at the Kennebunk Maintenance Area Mile 25 Northbound.

The Contractor shall take care not to damage the existing concrete pads during removal, handling, transporting, unloading, or stacking. Any damage to the existing pads shall be repaired to the satisfaction of the Resident at no cost to the Authority. If the Resident determines that the damage cannot be adequately repaired, the Contractor shall furnish a new pad at no cost to the Authority.

The hole left after removal of the concrete pad shall be backfilled with loam and seeded in accordance with Section 615 and Section 618, respectively.

626.04 Method of Measurement

The following sentences are added:

Remove and Stack Concrete Pad shall be measured as by the unit for each pad removed, handled, transported and stacked at the location indicated in the Plans or as directed by the Authority.

626.05 Basis of Payment

The following sentences are added:

The accepted quantity of concrete pads removed and stacked shall be paid for at the Contract unit price each as specified. Such price shall include careful removal of the existing concrete pad intact, backfill of the remaining hole with loam and seed, transporting the salvaged pad, and stacking the pad as directed.

Payment will be made under:

Pay Item		Pay Unit
626.373	Remove and Stack Concrete Pad	Each

SPECIAL PROVISION

SECTION 645

HIGHWAY SIGNING

(Remove and Stack Sign)
(Remove and Reset Sign)

645.07 Demounting and Reinstalling Existing Signs and Poles

The following paragraphs are added:

At locations as shown on the Plans, existing ground-mounted and overhead-mounted signs are designated to be removed and stacked. This work shall consist of removing, unbolting, and stacking existing sign panels and posts at the Authority's Sign Shop along the Turnpike Northbound at MM 58 and the excavations shall be backfilled and ground restored to the satisfaction of the Resident. Sign panels shall be stacked by approximate sizes at the Sign Shop as directed by the Authority.

Access to the Authority's Sign Shop shall be from the local roadway, Blackstrap Road. No Contractor vehicles are permitted direct access to or from the Sign Shop via the Turnpike mainline. Sign panels delivered to the Authority's Sign Shop shall be unbolted in the field and disassembled into sections not greater than 100 square feet for transport to the Sign Shop, without cutting into extruded panels.

At locations as shown on the Plans, existing ground mounted signs and overhead-mounted signs are designated to be removed and reset. This work shall consist of removing the sign panels, removing and resetting or disposing of the existing support equipment (wood posts or steel supports), and resetting the sign panels onto new steel supports as required or as directed by the Resident.

Any existing signs not shown on the Plans are to remain in their existing condition unless directed otherwise by the Resident.

Steel H-beam supports salvaged to the Authority shall be labeled by size, shape, and length and stacked by approximate sizes at the Sign Shop as directed by the Authority. The label shall also note if the post has been drilled for mounting a breakaway kit (lower half) or breakaway splice plate (either lower half or upper half).

At locations as shown on the Plans, existing foundations to be removed shall be removed to a depth of 24 inches below final grade, including all concrete, reinforcing and anchor bolts. The removal of foundations shall include restoration of ground at the foundation locations.

645.08 Method of Measurement

The following sentences are added:

Removing and stacking existing signs shall be measured as complete units each removed and stacked.

Removing and resetting signs shall be measured as complete units each removed, relocated, and reset at the new location.

645.09 Basis of Payment

The following paragraphs are added:

The accepted signs Removed and Stacked shall be paid for at the Contract unit price each as specified. Such price shall include removing, disassembling, and stacking sign panels and supports at the location specified, and removing any foundations that are not reused with ground restoration as specified.

The accepted signs Removed and Reset shall be paid for at the Contract unit price each as specified. Such price shall include removing and resetting sign panels, removing and resetting or disposing of existing supports, and resetting the sign onto the new supports. Any signs or supports that are indicated to be reset or reused that are damaged by the Contractor shall be replaced by the Contractor at no additional cost to the Authority.

Payment will be made under:

Pay Item		Pay Unit
645.105	Remove and Stack Sign	Each
645.109	Remove and Reset Sign	Each

SPECIAL PROVISION

SECTION 645

HIGHWAY SIGNING

(Auxiliary Panel Supports)

645.01 Description

The following paragraph is added:

This work shall consist of furnishing and installing auxiliary panel supports in accordance with these specifications and in reasonably close conformity with the Plans. Auxiliary panel supports are also known as sign stiffeners.

645.021 Materials

The following paragraph is added:

Auxiliary panel supports shall be 2-inch x 2-inch x 0.25-inch aluminum Tees, made from 6061 aluminum alloy, or approved equivalent. Auxiliary panel support lengths shall be equal to two times the height of the sign above the existing steel H-beams.

645.06a Installation of Type I Signs – Sign Supports

The following paragraph is added:

Auxiliary panel supports shall be attached to the supported and unsupported portions of the extruded aluminum signs with post clips attached to both the left and right side of the aluminum Tee. The minimum length of a sign stiffener shall be four linear feet, using a minimum of eight post clips.

645.08 Method of Measurement

The following paragraph is added:

Auxiliary panel supports will be measured by the linear foot, computed to the nearest half foot, for auxiliary panel supports installed and accepted as sign stiffeners. No measurement shall be made for auxiliary panel supports installed to attach an exit panel to a sign, as auxiliary panel supports for exit panels shall be incidental to the exit panel.

645.09 Basis of Payment

The following paragraph is added:

The accepted auxiliary panel supports furnished and installed will be paid for at the Contract unit price per linear foot as specified. Such price will include furnishing and installing auxiliary panel supports used as sign stiffeners, new post clips and mounting hardware as required

to complete the installation and all labor, materials, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item		Pay Unit
645.2519	Auxiliary Panel Supports	Linear Foot

SPECIAL PROVISION

SECTION 645

HIGHWAY SIGNING

(Protection of Signs with Type XI Sheeting)

645.04 Fabrication of Type I Guide Signs

The following paragraphs are added after the second paragraph in part b. Reflective Sheeting:

The Contractor and Sign Fabricator shall exercise all due caution to avoid any creases, bends, tears, punctures, or other damage to any Type XI sign sheeting, perceptible or not. Sign sheeting shall be protected at all times following application to the extruded aluminum surface. Any defect which becomes perceptible either under direct, indirect or no light conditions shall be cause for rejection of the sign panel.

Following the application of the sign legend and borders, the sign panel shall be protected from all hazards that may cause a defect to the sign sheeting (either background, legend or borders) in accordance with the manufacturer's recommendations. Fabricated signs shall not be stacked during storage, transport, or erection such that concentrated pressure is placed on one area of the sign face that is not uniform across the full sign face.

645.08 Method of Measurement

The fifth (5^{th}) paragraph is deleted and replaced by the following paragraph:

The area of roadside guide signs, regulatory, warning, confirmation and route marker assembly signs of the respective types, will be measured by the area in square feet, computed to the nearest hundredth of a square foot (0.01 SF), as determined by the overall height multiplied by the overall width. Any defect in the surface area of the sign that becomes perceptible under direct, indirect, or no light conditions shall be cause for rejection of the whole sign panel.

SPECIAL PROVISION

SECTION 645

HIGHWAY SIGNING

(Overlay Existing Guide Sign)

645.01 Description

The following paragraph is added:

This work shall consist of furnishing and installing sheet aluminum overlays for Type 1 guide signs in accordance with these specifications and in reasonably close conformity with the Plans.

645.021 Materials

The following paragraph is added:

Sheet aluminum overlays shall be fabricated from 0.080 inch thickness sheet aluminum and conform to Section 719.04.

645.04 Fabrication of Type I Guide Signs

The following section is added:

d. Sheet Aluminum Overlays The sheet aluminum overlays shall be field applied to the existing sign panels. When field applied to existing extruded aluminum panel signs, the overlays shall be applied to the sign panel with a pre-coated, adhesive backing (direct applied).

645.06 Installation of Type I Signs

The following section is added:

c. Sheet Aluminum Overlays Prior to fabrication of the sheet aluminum overlays, the Contractor shall carefully measure the area of the existing text to be covered by the sheet aluminum overlay. The area measurement (width and height of the area to be covered) shall be submitted with the shop drawings to the Resident Engineer for review. The approved sheet aluminum overlays shall be attached to the existing guide signs by use of aluminum pop rivets in accordance with standard commercial practice.

645.08 Method of Measurement

The following paragraph is added:

New sheet aluminum overlays installed on existing guide signs will be measured by the area in square feet, computed to the nearest hundredth of a square foot, as determined by the overall width multiplied by the overall height of the overlay panel.

645.09 Basis of Payment

The following paragraph is added:

The accepted sheet aluminum overlays to be fabricated and installed on existing guide signs will be paid for at the contract unit price per square foot of overlay. Such payment will be full compensation for furnishing and installing sheet aluminum overlays, assembly and attachment hardware, and all incidentals necessary to complete the work.

Payment will be made under:

Pay Item		Pay Unit
645.2511	Sheet Aluminum Overlay, Type 1	Square Foot

SPECIAL PROVISION

SECTION 645

HIGHWAY SIGNING

(Wood Post)

645.023 Support Structures

The following paragraph is added as paragraph 'e':

e. Wood Post Mounted Signs The support posts for Type I guide signs mounted to wood posts shall be in accordance with Section 645.061a except that the wood post shall be set to a depth of five (5) feet below grade. Type I guide signs shall be mounted to wood posts using 2-inch x 2-inch aluminum angle brackets mounted to two faces of the wood post and through bolted to the wood post at a minimum of two locations. The angle brackets shall be equal to the height of the sign to be mounted to the wood posts.

When wood posts are identified as breakaway, the posts shall be drilled in accordance with MaineDOT Standard Detail 645(09)B. When 6"x8" wood posts are identified as breakaway, the Contractor shall drill holes as for a 6"x6" wood post except that the holes in the 8-inch face shall be 3-inch diameter.

645.08 Method of Measurement

The following paragraph is added:

Wood Posts will be measured by the linear foot, computed to the nearest half foot, for the actual length of post installed.

645.09 Basis of Payment

The following paragraph is added:

The accepted Wood Posts furnished and installed will be paid for at the Contract unit price per linear foot as specified. Such price will include furnishing and installing wood posts, aluminum angle brackets, and mounting hardware as required to complete the installation and all labor, materials, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item		Pay Unit
645.80	Wood Post	Linear Foot

SPECIAL PROVISION

SECTION 650

DYNAMIC MESSAGE SIGN

650.01 Description This work shall consist of furnishing, installing, connecting, configuring, and testing a new dynamic message sign (DMS), DMS controller, ground mounted control cabinet, cellular modem, and solar power system. This work also consists of system training and testing. The DMS supports as well as conduits for power service and communications, are specified elsewhere in the Contract Documents.

650.02 General All equipment shall be new unless otherwise specified.

650.03 Materials Materials shall meet the following requirements:

Electrical materials shall meet the standards herein, local and public utility codes, and the National Electrical Code (NEC).

Cabinets and enclosures shall meet the standards herein and the National Electrical Manufacturer's Association (NEMA) TS-4 standards.

All grounding and electrical installations shall meet the requirements of NEC, as well as all applicable state, local, and applicable public utility codes. All grounding shall meet the requirements of the manufacturers of the devices installed on the project. In the event that the manufacturers' requirements are more stringent than those of the national, state, and local codes, then the manufacturers' grounding requirements shall apply.

The Contractor shall furnish and install Transient Voltage Surge Suppression (TVSS) device(s) for all power and communications conductors leaving the equipment cabinets, including ITS equipment and solar power cabinets, including but not limited to power service, and power and communications for all devices that are external to the cabinet.

The hardware to mount the DMS to the support structures shall be galvanized steel in accordance with AASHTO M232.

a. The mounting bolts shall be 5/8-inch heavy hex head bolt, ASTM A325 Type 1 (AASHTO M164).
b. The nuts to secure the bolts shall be 5/8-inch heavy hex head nuts, ASTM A563 or A194 (ASSHT M291).
c. The washers shall be 5/8-inch hardened washers, ASTM F436 (AASHTO M293).

650.031 Dynamic Message Sign (DMS) The DMS shall be a Ver-Mac model B-1500C or approved equivalent.

Mounting: The Contractor shall furnish and install all hardware required to attach the DMS panel to the applicable supports. DMS shall be mounted using two Zee bars attached along the top and bottom of the DMS panel. For ground mounted installations, the Zee bars shall be bolted to the steel H beams on each side of the web as shown in the Plans.

Environmental:

a. Operating temperature range: -30° to + 74°C

b. Humidity operating range: 10 to 95 percent relative humidity, non-condensing

650.032 DMS Controller The DMS Controller shall be a Ver-Mac V-Touch Controller or approved equal.

a. Environmental – The DMS controller shall have the same environmental standards as the DMS panel itself.

650.033 DMS Ground Mounted Control Cabinet The DMS Ground Mounted Control Cabinet shall be ground mounted and installed at the locations shown in the Plans, and in conformance with all requirements shown in the Plans. The DMS cabinet shall consist of an aluminum weatherproof housing, and all ancillary equipment necessary to provide a complete, operational control cabinet for the DMS equipment. This work shall include all wiring, cabling, and connectorizing from the DMS cabinet to the DMS panel.

a. The DMS cabinet shall be NEMA 3R rated.

b. The DMS cabinet shall be a NEMA "P-44" cabinet meeting the requirements of Section 643.042, with the exception that the DMS cabinet shall not require a switch compartment as described in the sixth paragraph of Section 643.042.

c. A 36-inch x 30-inch x 4-inch concrete work pad shall be installed in front of each cabinet door. The pad shall be placed on a minimum of four inches of compacted granular material. The pad shall be set with at least one percent grade such that any water on the pad shall flow away from the cabinet. The DMS cabinet shall be secured to the concrete foundation provided by the Contractor as shown in the Contract Documents. Where the work pad is installed on a slope, the depth of the pad shall be increased such that there is at least two inches of the concrete pad below grade. Where an existing concrete pad is adjacent to the new controller cabinet foundation, that concrete pad shall act as the work pad for that door.

d. Each cabinet shall contain a power panel. The power panel shall contain a primary circuit breaker, which will accept the incoming power from the solar power system or from the AC utility power. This primary circuit breaker shall serve as the electrical disconnect for the cabinet and shall shut off all cabinet power when in the "off" position.

e. The DMS cabinet shall protect the electronics and interfaces against: sustained winds of 90 miles per hour (MPH), with 120 MPH wind gusts, blowing sand and dust, roadside pollutants from vehicle exhausts, blowing rain and snow and heavy ice accumulations experienced in the project area.

f. The cabinet door shall be supplied and installed with Corbin 1548-1 locks for access by #2 keys.

g. The DMS cabinet shall be supplied with a captive door restraint bar. The bar shall allow the door to be kept open at a minimum of two different angles with one at 90 degrees and the other in the fully open position. The door restraint bar shall be supplied and installed such that the door is held in place during a 40 MPH wind without the restraint bar being bent. The door restraint bar shall be provided to prevent door movement when open in windy conditions.

h. Door hinges shall be continuous and bolted to the cabinet and door utilizing steel carriage bolts and nylock nuts. The hinges shall be made of a minimum 0.083-inch thick aluminum and shall have a minimum 0.250-inch diameter stainless steel hinge pin. The hinge pin shall be capped at the top and bottom by a weld to prevent removal.

i. The top and bottom of the latching pushrods shall contain nylon rollers to promote secure door closure.

j. The door handle shall be stainless steel. The latching handle shall have provisions for padlocking in the closed position; however, no padlocks are required.

k. The DMS cabinet shall be covered by a two-year dated warranty covering material defects for two years from date of acceptance. The Contractor shall provide a letter, prior to project close out, from the DMS manufacturer stating the manufacturer will uphold the two-year warranty.

l. The DMS cabinet shall contain a power switch mounted within the cabinet to control power to all duplex outlets. The cabinet shall include a minimum of two duplex outlets (total of four outlets), each rated for 15 amps. The cabinet shall also include a Tripp Lite power outlet strip, model IBAR 12-20T or approved equal.

m. The Contractor shall supply and install a thermostatically controlled electric fan in the cabinet to maintain the temperature within the field cabinet to that required by the equipment for outside temperatures as specified in these Special Provisions. Thermostats shall have the capability of being field adjusted from 50° F to 120° F.

n. All exposed, high voltage electrical terminals shall be insulated with non-conducting material such as rubber boots or silicon/rubber caulking.

o. The DMS cabinet shall be electrically bonded to all of its associated metallic DMS support structure grounding systems, as described elsewhere in this document or in the Contract Documents.

p. All air venting arrangements shall contain air filters. The air filters shall have an average rated efficiency of 30% and an arrestance of 90% when tested in accordance with ASHRAE 52.1-1992 Test Standard. The filter shall be listed and rated Class 2 by the Underwriters Laboratories. Each cabinet shall be supplied with all required air filters. All fans shall be located above the air filters at the top of the cabinet.

q. All intake and exhaust vents shall meet NEMA 3R requirements with and without powering the air venting arrangements. All exhaust vents shall be furnished with a screen to prevent insects from entering the DMS cabinet.

r. The DMS cabinet shall be supplied and installed with an internal light located in the top of the cabinet inside each door. This lights shall automatically turn on when the cabinet door is open and shut off when the door is closed. The lights shall be hardwire connected to the cabinet's electrical power distribution buss.

s. The Contractor shall furnish in a watertight container a control cabinet-wiring diagram. Three sets of identical wiring diagrams shall be furnished for each cabinet.

650.034 Cellular Modem The Cellular Modem shall provide the communications interconnect means between the DMS Controller and the Authority's communications system. The Cellular Modem, where identified on the plans, shall be furnished by the Authority.

650.035 Solar Power System The Solar Power System shall provide power to the DMS, DMS controller, DMS control cabinet, and cellular modem. The Solar Power System shall meet the following requirements:

a. The Solar Power System shall consist of solar panels, solar panel support structures and foundations, batteries, solar power system equipment, an independent control cabinet to house the batteries and solar power system equipment, and all associated cabling.

b. The solar panel support structures and foundations shall meet the following requirements:

    a. The solar array support pole and foundation shall be designed by a Professional Engineer licensed in the State of Maine and constructed to comply with all applicable sections of the 2015 edition of the AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals with all published addendums/interim revisions. For other structural requirements, the Contractor shall refer to Section 643 and Section 645.

    b. The solar panel support pole shall be a one-piece construction, galvanized steel, and shall conform to ASTM A595 Grade A with a minimum yield strength of 55 ksi, or ASTM A572 with a minimum yield strength of 65 ksi.

    c. The solar array support pole shall be designed to support a solar array and all hardware subsidiary to the solar power system necessary to power all DMS equipment and auxiliaries. The support pole shall be designed for the number of solar panels as indicated by the approved solar power calculations. Close consideration shall be given to the effective projected area of the complete solar power system to be mounted on the pole along with the weight of attached hardware when designing the pole to meet the performance criteria, including consideration for all possible loading combinations including wind and ice loads; and the design stresses and allowable stresses for all components which comprise the proposed structure.

    d. The solar array support pole shall be designed of sufficient height such that the lowest portion of the attached solar panels, at a 45 degree tilt angle, shall be a minimum of 6 feet above the adjacent ground. The solar panels shall be installed

such that they are not shadowed by adjacent equipment or trees a minimum of six hours of each day.

e. The structural calculations shall include a pole, base plate, and anchor bolt analysis. The pole calculations shall be analyzed at the pole base and at 5-foot pole intervals along the full height of the pole. At each of these locations, the following information shall be provided by the Contractor:

   i. The pole's diameter, thickness, section modulus, moment of inertia, and cross sectional area.
   ii. The centroid, weight, projected area, drag coefficient, velocity pressure, and wind force of each trapezoidal pole segment.
   iii. The axial force, shear force, primary moment, total moment, axial stress, bending stress, allowable axial stress, allowable bending stress, and combined stress ratio (CSR) at each elevation.
   iv. The pole's angular and linear and angular deflection at each location.

f. Base Plate: Base plates shall conform to ASTM A36 or A572 Grade 42.

g. Foundations shall be cast in place. No precast foundations shall be permitted.

h. Anchor rods shall conform to the requirements of ASTM F1554 Grade 55 (minimum). Galvanize the entire rod per ASTM A153. Each anchor rod shall be supplied with a minimum of two hex nuts (ASTM A563 or ASTM A194) and a minimum of two flat hardened washers (ASTM F436).

i. The top of the foundation should be placed at least 3 inches higher than adjacent highest soil but not more than 4 inches higher than adjacent highest soil, unless otherwise specified in the Contract Documents.

j. All electrical materials shall meet all applicable state, local and public utility codes and requirements as well as the National Electrical Code (NEC).

k. The Contractor shall supply and install a grounding system at the base of the solar array support pole. The grounding system shall be connected to the pole through an appropriate ground clamp. A #4 AWG copper wire shall be installed between the support pole and the battery cabinet providing a common ground system for each terminus. A minimum one-inch conduit through the foundation to the inside of the pole shall provide the means to connect the ground wire from the inside of the pole at a ground lug to the ground rod(s).

l. Additional ground rods shall be installed to meet the manufacturer's recommended resistance to ground, or a maximum of 25 ohms, whichever is less.

c. The solar power batteries shall be sized to provide ten (10) days of autonomy to the DMS, DMS controller, DMS control cabinet, and cellular modem under no-light conditions. After ten (10) days of autonomous operation under no-light conditions, the batteries shall still retain at least 50% of their full capacity.

d. The batteries shall be sealed AGM type, and shall be spill proof.

e. The solar panels shall be sized to fully recharge the batteries in ten (10) days or less, while also supplying power to operate the DMS, DMS Controller, ITS Equipment Cabinet, and Cellular Modem, while under typical light conditions as defined by industry standard solar insolation maps for the State of Maine.

f. The solar panels shall be of the monocrystalline or polycrystalline type.

g. The mount for the solar panel array shall provide for adjustment of the angle of the face of the solar panels. The Contractor shall adjust the position of the solar panel array in a manner that maximizes solar exposure.

h. The Contractor shall locate the solar panel array in a location that results in no shadows being cast on the solar panels a minimum of six sunlight hours of the day. The Contractor shall consider the effects of leaves on trees, regardless of whether or not there are any leaves on trees at the time of installation.

i. The solar power system shall provide 24 hours per day of operation, seven (7) days per week, 365 days per year with no loss of operation. The Contractor shall submit for approval a solar calculation which demonstrates compliance with these requirements. The solar calculation shall include the manufacturer's specified loads for each piece of equipment to be powered. The solar calculation shall take into account the operating temperature range of 0ºF to +122ºF.

j. The solar power system shall be designed to operate correctly over a free air temperature range of -30ºF to +122ºF. Solar power system components installed within the control cabinet shall be designed to operate correctly over a temperature range of -30ºF to +165ºF.

k. The DMS control cabinet shall house the batteries and solar power equipment. The equipment shall include, but not be limited to, charge control circuitry that prevents overcharging of the batteries, low voltage disconnect devices which disconnect the batteries to prevent battery damage in the event of a very low state of charge, and an inverter that provides 120 VAC power to the DMS control cabinet. The inverter shall provide 120 VAC power with three (3) percent or less total harmonic distortion, and with output voltage regulation of plus or minus five (5) percent or better. The charge control circuitry shall be temperature compensated such that battery charging voltage is automatically adjusted based on temperature variations so as to maximize battery life. The control devices shall also include a system monitoring device which allows maintenance personnel to assess critical system parameters such as battery condition and solar panel output. The cabinet shall include overcurrent protection devices that limit overcurrent in the solar power system to safe levels in the event of a malfunction of the solar power system.

l. Where the Contract Documents indicate solar power systems, the solar power control cabinet shall include all provisions for future utility power connection.

m. The DMS control cabinet shall include an AC powered battery charger which, when operating under generator power or utility power, fully recharges the batteries in two (2) days or less, while also supplying power to operate the DMS, DMS controller, DMS control cabinet, and cellular modem.

n. The solar panels shall be Underwriter's Laboratory (UL) approved. UL certification shall be provided with the catalog cuts and working drawings in the Technical Submittal.

650.05 Training The Contractor shall provide up to 6 hours training on all components of the DMS system. The Training shall meet the following requirements:

a. The Contractor shall provide training on the configuration, operation, and maintenance of the items provided under this contract as described herein. The training shall be on the new items provided under this contract, including the DMS, DMS controller, DMS control cabinet, and solar power system.

b. The Contractor shall develop and supply all necessary manuals, displays, class notes, and visual aids, and other instructional materials furnished by equipment manufacturers. Instructional materials shall include all data sheets and manuals from manufacturers for all contract items supplied.

c. All training shall include hands-on use of all equipment, both field equipment and central equipment.

650.06 Testing The Contractor shall provide testing on all components of the system. The testing shall meet the following requirements:

a. The Contractor shall propose a test plan for the DMS system and for the solar power system and submit the test plan(s) and procedures as detailed herein. Each of the test plans shall contain the following elements:

    a. Proposed date, time, and location of the testing
    b. Names and credentials of the Contractor personnel who will be conducting the testing
    c. Descriptive overview of the proposed test procedure
    d. List of test equipment required to perform the testing
    e. Test cases and test logging forms which detail every step of the test procedure:

b. Test logging forms shall be presented in tabular format, with separate columns for each of the following:

    a. Test case description detailing the test step to be performed.
    b. Expected result
    c. Actual result
    d. Pass/fail
    e. Comments

c. The Contractor shall supply separate test logging forms at the time of testing for each test plan, and for each device location. The test logging forms shall show the device location, date, and the start and end times of the test.

d. At the end of each test logging form, there shall be signature and date locations for each of the following:

    a. Contractor personnel conducting the test
    b. Engineer representative witness
    c. Authority Resident

e. Signatures on the test logging form will signify only that the test was performed and witnessed, not that it passed or failed.

f. The detailed Test Plans shall be submitted to the Engineer no later than thirty (30) days prior to the beginning of each test phase.

g. The Contractor shall have approved test plans prior to submitting a request to schedule the start of any test activities. The Contractor shall notify the Resident no less than seven (7) days prior to the beginning of any equipment or systems testing.

h. Testing shall provide verification and documentation that all requirements as detailed in this Section and the Plans are met. The Test Plans shall be developed by the Contractor to provide a mechanism that ensures that all contract requirements have been met and tested successfully and verified.

i. If any deviations or changes to the approved Test Plans arise, it shall be resubmitted for review and approval by the Engineer at least fourteen (14) calendar days prior to any planned test activity stage. No tests shall be conducted until the Engineer has approved the test plan.

j. A summary of all tests shall be produced at the completion of each testing phase of the project to ensure that all requirements defined by the system are satisfied.

650.07 Method of Measurement

Dynamic Message Sign (DMS) Systems will be measured for payment by the lump sum for a fully operational system in place.

DMS Ground Mounted Control Cabinets will be measured for payment by each unit furnished and installed.

DMS Solar Power System will be measured for payment by the lump sum for a fully operational system in place.

The DMS ground mounted control cabinet foundations will be measured in accordance with Section 626.

650.08 Basis of Payment

The accepted quantity of Dynamic Message Sign (DMS) Systems will be paid for at the Contract lump sum price. This price shall be full compensation for furnishing, installing, configuring, testing, and training associated with the DMS panel and the DMS controller.

The accepted quantity of DMS Ground Mounted Control Cabinets will be paid for at the Contract unit price for each unit installed. This price shall be full compensation for furnishing and installing the cabinets with ground mounted foundations, and for equipment that uses utility power, for all utility connections, attachments, hardware, meters, disconnects, and associated cabling. The price also includes all costs for associated equipment and hardware within the control cabinet not included in other pay items.

The accepted quantity of DMS Solar Power Systems will be paid for at the Contract lump sum price. This price shall be full compensation for designing, furnishing, installing, testing and training associated with the DMS solar power system. The price also includes all costs associated with the structural design and fabrication of the solar panel support system and the support foundation and for the development and submission of the required solar power calculations.

Payment will be made under:

Pay Item		Pay Unit
650.101	Dynamic Message Sign (DMS) System:	Lump Sum
650.201	DMS Ground Mounted Control Cabinet:	Each
650.901	DMS Solar Power System:	Lump Sum

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Specific Project Maintenance of Traffic Requirements)

This Specification describes the specific project maintenance of traffic requirements for this Project.

The following minimum traffic requirements shall be maintained. These requirements may be adjusted based on the traffic volume when authorized by the Authority.

Cutts Road

The Cutts Road bridge over the Maine Turnpike may require a flagging operation for the proposed removal of existing bridge overpass mounted signs. The Contractor shall notify the Resident/Authority two weeks prior to the proposed bridge work on Cutts Road. The Contractor shall maintain a minimum of one 12-foot wide travel lane on the bridge at all times.

Maine Turnpike Traffic Control Requirements

This Section outlines the minimum requirements that shall be maintained for work on, over, or adjacent to the Maine Turnpike roadway. Operations are allowed as outlined below:

General - Loading/unloading trucks shall not be closer than six feet from an open travel lane when being loaded or unloaded within the work zone.

Overhead sign installation directly over traffic or within six feet of a travel lane as measured from the painted pavement marking line or traffic control device will require a lane closure. If work cannot be completed within a lane closure, then a full traffic stoppage may be required during which traffic may be held for periods of up to 25 minutes during each stoppage. Traffic stoppages are restricted to 10:00 p.m. to 5:00 a.m. Before the roadway is reopened, all materials shall be secured so they will not endanger traffic passing underneath. The Contractor will reimburse the Authority at the rate of $2,500.00 per five-minute period for each roadway not reopened (northbound and southbound), in excess of the 25- minute limit. Total penalty shall be deducted from the next pay estimate.

Night work is expected and will be permitted upon submission of a written request to the Resident Engineer at least one week prior to the scheduled work. Alternatively, the Contractor may submit a schedule for night work at least one week prior to the first night of work for review and approval by the Resident Engineer.

Shoulder closures shall maintain a minimum of four (4) feet of lateral buffer from an open travel lane when in place between 6:00 a.m. and 9:00 a.m. and between 3:00 p.m. and 6:00 p.m. During July and August, the four-foot minimum lateral buffer applies from 6:00 a.m. to 8:00 p.m.

Lane closures will be permitted in accordance with the schedule shown in Table A. Lane closures outside of the allowable hours and dates indicated in Table A may be requested in writing at least one week prior to the proposed time. Any requests for additional lane closure times will be evaluated by the Authority; however, the Authority makes no commitment to approve lane closure requests outside of the approved hours.

Ramp work will be permitted in accordance with the schedule shown in Table A. Work along the Exit 2 southbound ramps shall only occur within the schedule shown in Table A for night work. Full ramp closures will not be permitted.

TABLE A: APPROVED SHOULDER CLOSURES AND LANE CLOSURES

Mainline MM 0.0 to MM 3.4, Northbound March 11, 2019 to June 13, 2019 September 15, 2019 to November 15, 2019 (Night Work Only)				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	7:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	6:00 p.m. to 8:00 a.m. next day	Allowed		

Mainline MM 0.0 to MM 3.4, Northbound June 14, 2019 to September 14, 2019 (Night Work Only)				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	9:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	7:00 p.m. to 8:00 a.m. next day	Allowed		

Mainline MM 0.0 to MM 3.4, Southbound March 11, 2019 to June 13, 2019 September 15, 2019 to November 15, 2019 (Night Work Only)				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	8:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	7:00 p.m. to 6:00 a.m. next day	Allowed		

Mainline MM 0.0 to MM 3.4, Southbound June 14, 2019 to September 14, 2019 (Night Work Only)				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Monday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	10:00 p.m. to 6:30 a.m. next day	Allowed		
Days of Week:	**Monday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	8:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	7:00 p.m. to 6:30 a.m. next day	Allowed		

Mainline MM 3.4 to Exit 7, Northbound March 11, 2019 to June 13, 2019 September 15, 2019 to November 15, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Thursday p.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	7:00 p.m. to 1:00 p.m. next day	Allowed	Allowed	
Time of Day:	Anytime	Allowed		
Days of Week:	**Thursday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. Thursday to 6:00 a.m. Friday	Allowed	Allowed	Allowed
Time of Day:	7:00 p.m. Thursday to 8:00 a.m. Friday	Allowed	Allowed	
Time of Day:	6:00 p.m. Thursday to 12:01 p.m. Friday	Allowed		

Mainline MM 3.4 to Exit 7, Northbound June 14, 2019 to September 14, 2019 (Night Work Only)				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	9:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	7:00 p.m. to 9:00 a.m. next day	Allowed		

Mainline MM 3.4 to Exit 7, Southbound March 11, 2019 to June 13, 2019 September 15, 2019 to November 15, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	8:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	Anytime	Allowed		
Days of Week:	**Monday through Thursday**			
Time of Day:	9:00 a.m. to 3:00 p.m.	Allowed	Allowed	

Mainline MM 3.4 to Exit 7, Southbound June 14, 2019 to September 14, 2019 (Night Work Only)				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Monday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	10:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	10:00 p.m. to 8:00 a.m. next day	Allowed		
Days of Week:	**Monday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	8:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	7:00 p.m. to 6:30 a.m. next day	Allowed		

Mainline, Exit 7 to 19, Northbound and Southbound March 11, 2019 to June 13, 2019 September 3, 2019 to November 15, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	6:00 p.m. to 11:00 a.m. next day	Allowed	Allowed	
Time of Day:	Anytime	Allowed		

Mainline Exit 7 to 19, Northbound June 14, 2019 to September 2, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	8:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	6:00 p.m. to 10:00 a.m. next day	Allowed		

Mainline Exit 7 to 19, Southbound June 14, 2019 to September 2, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Monday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Days of Week:	**Monday p.m. through Friday a.m.**			
Time of Day:	6:30 p.m. to 6:30 a.m. next day	Allowed	Allowed	
Time of Day:	Anytime	Allowed		
Days of Week:	**Friday (daytime)**			
Time of Day:	5:00 a.m. to 12:01 p.m.	Allowed		

Mainline Exit 19 to MM 33, Northbound March 11, 2019 to June 13, 2019 September 3, 2019 to November 15, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Thursday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	6:30 p.m. to 2:00 p.m. next day	Allowed	Allowed	
Time of Day:	Anytime	Allowed		
Days of Week:	**Thursday a.m. through Friday a.m.**			
Time of Day:	10:00 p.m. Thursday to 6:00 a.m. Friday	Allowed	Allowed	Allowed
Time of Day:	6:00 p.m. Thursday to 10 a.m. Friday	Allowed	Allowed	
Time of Day:	12:01 a.m. Thursday to 12:01 p.m. Friday	Allowed		

Mainline Exit 19 to MM 33, Northbound June 14, 2019 to September 2, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	7:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	6:00 p.m. to 12:01 p.m. next day	Allowed		

Mainline Exit 19 to MM 33, Southbound March 11, 2019 to June 13, 2019 September 3, 2019 to November 15, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Thursday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	6:00 p.m. to 7:00 a.m. next day	Allowed	Allowed	
Time of Day:	Anytime	Allowed		
Days of Week:	**Thursday a.m. through Friday a.m.**			
Time of Day:	10:00 p.m. Thursday to 6:00 a.m. Friday	Allowed	Allowed	Allowed
Time of Day:	6:00 p.m. Thursday to 7:00 a.m. Friday	Allowed	Allowed	
Time of Day:	12:01 a.m. Thursday to 2:00 p.m. Friday	Allowed		

Mainline Exit 19 to MM 33, Southbound June 14, 2019 to September 2, 2019				
		Turnpike Shoulder Closures	**Turnpike Single Lane Closures**	**Turnpike Double Lane Closures**
Days of Week:	**Sunday p.m. through Monday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	9:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	7:00 p.m. to 9:00 a.m. next day	Allowed		
Days of Week:	**Monday p.m. through Friday a.m.**			
Time of Day:	10:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	Allowed
Time of Day:	8:00 p.m. to 6:00 a.m. next day	Allowed	Allowed	
Time of Day:	6:00 p.m. to 9:00 a.m. next day	Allowed		

NOTE 1: Turnpike Lane Closures shall be removed if construction is not ongoing. Unattended lane closures are not allowed.

Construction vehicles are prohibited from merging with mainline traffic after noon on Fridays between June 21st and September 8th unless the merge occurs at an interchange.

NOTE 2: There shall be no lane closures permitted along the Turnpike over the following dates:

- April school vacation week 2019 (April 15th – April 19th)
- May 24-28, 2019
- July 3-8, 2019
- August 30-September 3, 2019
- October 11-15, 2019
- November 27-December 2, 2019
- February school vacation week 2020 (TBD)
- April school vacation week 2020 (TBD)
- May 29-June 1, 2020

652.7 Method of Measurement

The following paragraph is added:

Traffic control devices required to complete the work will be measured for payment under their respective pay items. Installation, maintenance, and removal of traffic setups and the Contractor's dedicated traffic employee will not be measured separately for payment, but shall be incidental to Item 652.361, Maintenance of Traffic Control Devices.

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Truck Mounted Attenuator)

Section 652 of the Maine Turnpike Authority 2016 Supplemental Specifications is modified as follows:

652.1 Description

The following paragraph is added:

When a pay item for a Truck Mounted Attenuator (TMA) is included in the contract at least one TMA will be required on the project and its use will be required. The truck mounted attenuator should be utilized in lane closures and other construction operations where workers are exposed to traffic and not protected by other positive means. The Contractor shall manage the utilization and operation of the TMA and if at least one is not used as described above then it will be considered a Traffic Control Plan violation and result in a reduction of payment as outlined in Section 652.

652.2.1 Truck Mounted Attenuator

This section is deleted in its entirety and replaced with the following:

The truck mounted attenuator system shall conform to the following requirements:

- Truck and attached attenuator shall conform to the NCHRP Report 350, Test Level 3 criteria.
- A mounted revolving amber light or amber strobe light with 360-degree visibility.
- An arrow light bar fixed to the vehicle.
- The attenuator shall be mounted to a vehicle with a minimum weight of 10,000 lbs.

652.3.7 Operations

This section is deleted in its entirety and replaced with the following:

The Contractor shall manage the operation of the truck mounted attenuator. The truck mounted attenuator should be utilized in lane closures and other construction operations where workers are exposed to traffic and not protected by positive means. The operation of the vehicle shall be in accordance with the Manual of Uniform Traffic Control Devices and the manufacturer's recommendation.

Installation: The chart below identifies the distance from the work zone or hazard where the TMA shall be deployed. If the work zone is within a marked lane closure, the barrier truck distances shall apply and if the work is mobile, then shadow truck distances shall

apply. The TMA shall not be located in the buffer zone. When used as a barrier, the barrier truck shall be parked in low gear with brakes applied and the front wheels turned away from the work zone and the adjacent traffic lane. For placement details, reference the Manual of Uniform Traffic Control Devices (MUTCD).

Weight of Truck	Barrier Truck Distance from Work Zone of Hazard	Shadow Truck Distance from Work Vehicle or Work Zone
10,000 lbs	250 ft	300 ft
15,000 lbs	200 ft	250 ft
>24,000 lbs	150 ft	200 ft

652.7 Method of Measurement

The last paragraph is deleted and replaced with:

Truck mounted attenuator shall be measured for payment by the calendar day for each calendar day that a unit is used on a travel lane or shoulder on the project, as approved by the Resident.

652.8.2 Basis of Payment

The last two paragraphs are deleted and replaced with:

The Truck Mounted Attenuator(s) will be paid for at the Contract unit price per calendar day for each TMA used. This price shall include all costs associated with the use of the vehicle. Payment shall include operator, fuel, truck, maintenance, flashing lights, arrow board and all other incidentals necessary to operate the vehicle.

Payment will be made under:

Pay Item		Pay Unit
652.45	Truck Mounted Attenuator	Calendar Day

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Automated Speed Limit Sign)

652.1 Description

This special provision provides for furnishing, operating, and maintaining an Automated Trailer Mounted Radar Speed Limit Sign for project use. When a pay item for an Automated Trailer Mounted Radar Speed Limit Sign is included in the Contract at least one will be required on the project when there is a Work Zone Speed Limit in place. The Contractor shall furnish, operate, and maintain the Automated Trailer Mounted Radar Speed Limit Signs during the project operations.

652.1.1 Instruction and maintenance manuals shall be provided.

652.2 Materials

Automated Trailer Mounted Speed Limit Sign

Trailer mounted speed limit signs shall be self-contained units including sign assembly, flashing lights, directional radar to measure speed limits, a regulatory speed limit sign, and power supply specifically constructed to operate as a trailer-mounted sign. The preferred color of the unit shall be “construction orange”.

Signs

Base material for the regulatory speed limit signs shall be weather proof, rigid substrate specifically manufactured for highway signing and meet the retro-reflective sheeting application requirements of the sheeting manufacturer.

Sign text shall consist of the letters, digits and symbols either applied by stick-on or silk screen, to conform to the dimensions and designs indicated in the Contract, MUTCD and/or FHWA Standard Highway Signs. The materials and methods shall be in accordance with standard commercial processes.

“Work Zone” construction signs shall be mounted on the trailer unit above the regulatory speed limit sign. (see Appendix).

Signs and secondary signs shall follow the MUTCD for minimum mounting heights.

Power supply

The power supply shall be either full battery power with solar panel charging (capable of maintaining a charged battery level) and 135 ampere, 12 volt deep cycle batteries, or diesel powered generator with a fuel capacity sufficient for 10 hours of continuous operation.

Flashing Lights

Each unit shall be equipped with two mono-directional flashing lights, placed in accordance with the MUTCD, with amber lenses and reflectors, which are visible through a range of 120 degrees when viewed facing the sign. The lights, either strobe, halogen, or incandescent lamps, shall be visible for a minimum distance of one mile under daylight conditions and shall have a minimum flash rate of 40 flashes per minute. An "On" indicator light shall be mounted on the back of the signs, which is visible for at least 500 feet to provide confirmation that the flashing lights are operating.

Radar

The directional radar shall monitor approaching traffic only. The radar shall be capable of measuring speeds from 5 to 70 MPH at a distance of up to 1500 feet and shall have a high speed cut off thresh hold.

CONSTRUCTION REQUIREMENTS

652.3.2 Responsibility of the Contractor

The Contractor shall furnish the Automated Trailer Mounted Speed Limit Sign as described in this Special Provision for this project.

All existing speed limit signs, which conflict with the construction zone trailer mounted speed limit signs shall be covered completely when the work zone speed limit is in place.

Automated Trailer Mounted Speed Limit Signs shall only be used when a work zone speed limit is in place. The Contractor shall manage the utilization and operation of the Automated Trailer Mounted Speed Limit Signs and if at least one is not used when work zone speed limits are in place then it will be considered a Traffic Control Plan violation and result in a reduction of payment as outlined in Section 652.

The Resident will record the actual time and location for the signs on a daily basis when the Automated Trailer Mounted Speed Limit Signs are in use.

The Automated Trailer Mounted Radar Speed Limit Sign may be placed as shown on the plans, or may replace the posted regulatory speed limit signs or may be placed at a location within the closed lane that has a reduced speed limit.

Automated Trailer Mounted Speed Limit Signs shall be delineated with retro-reflective temporary traffic control devices while in use and shall also be delineated by affixing a retro-reflective material directly on the trailer.

Upon delivery of the Automated Trailer Mounted Speed Limit Sign and before acceptance by the Authority, the Contractor shall have a representative of the manufacturer review the condition and notify the Resident in writing, of all deficiencies noted.

The Contractor shall arrange to have all necessary repairs performed at no cost to the Authority.

To avoid impairing driver vision, the Contractor shall dim the lighted speed limit readings by 50 percent during nighttime use, and restore full power lighting during daytime operation.

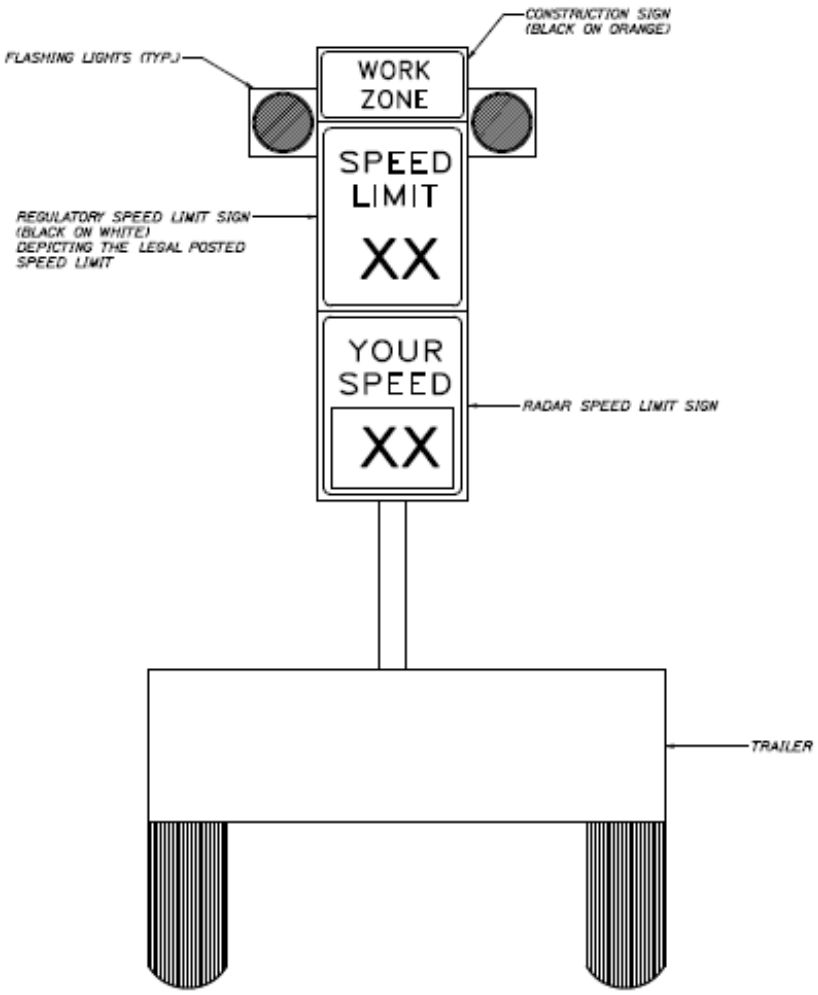
652.7 Method of Measurement

Automated Trailer Mounted Speed Limit Sign shall be measured for payment by the calendar day for each calendar day that the unit is used on a travel lane or shoulder on the project or per each for the continued use for the duration of the project. Payment shall include the Trailer, Radar Speed Limit Sign, flashing beacon amber lights, regulatory speed limit sign, fuel, necessary maintenance, and all checking of Radar Speed Limit Signs by manufacturer and all project moves including the transporting and delivery of the unit.

652.8 Basis of Payment

The Automated Trailer Mounted Speed Limit Sign(s) will be paid for at the Contract unit price per calendar day or per each. This price shall include all costs associated with the use of the Automated Trailer Mounted Speed Limit Sign.

Pay Item		Pay Unit
652.451	Automated Trailer Mounted Speed Limit Sign	Calendar Day
652.452	Automated Trailer Mounted Speed Limit Sign	Each



Date: 2/13/2018

Filename: Trailer Mounted Speed Limit.dgn

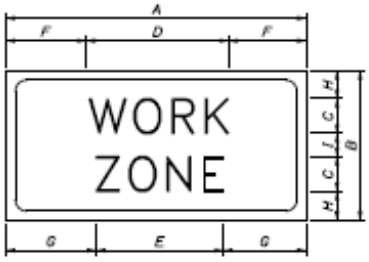
MAINE TURNPIKE

HNTB

FEBRUARY 2018

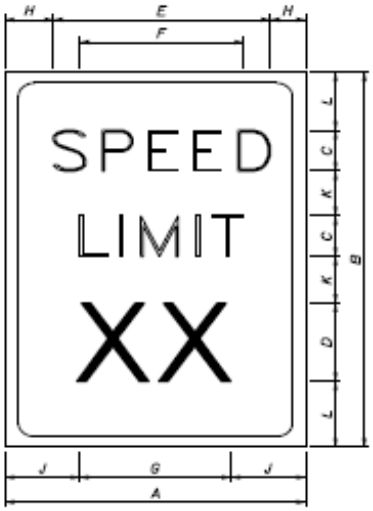
AUTOMATED TRAILER MOUNTED
SPEED LIMIT SIGN

1OF 2



SIGN *1

1.25" BORDER, 0.75" INDENT,
BLACK ON ORANGE, BB GRADE PLYWOOD SIGN



SIGN *2

1.25" BORDER, 0.75" INDENT,
BLACK ON WHITE, BB GRADE PLYWOOD SIGN

	DIMENSIONS (INCHES) / LETTER FONTS											
	A	B	C	D	E	F	G	H	I	J	K	L
*1	48	20	5D	18⅛	16⅝	14⅞	15⅝	4	2	N/A	N/A	N/A
*2	48	60	8E	16E	38¼	29¼	29½	4½	9⅜	9¼	8	6

Date: 2/13/2018

Filename: Trailer Mounted Speed Limit.dgn

MAINE TURNPIKE

HNTB

FEBRUARY 2018

TRAILER MOUNTED CONSTRUCTION ZONE
SPEED LIMIT SIGN

2 OF 2

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Temporary Portable Rumble Strips)

652.1 Description:

This work consists of furnishing and placing temporary portable rumble strips RoadQuake 2F TPRS or an approved equal.

652.2 Materials:

Furnish a temporary portable rumble strip system, which includes a method to transport and move these to on-site locations where they will be used. The Contractor shall submit for approval, literature and all necessary certifications to the Maine Turnpike prior to procurement of the product.

652.3 General:

If used, Temporary Portable Rumble Strips may not be practicable in areas where the roadway has more than two travel lanes, where volume windows do not allow for breaks in traffic to set up and monitor and adjust, or during night time lane closures.

Placement:

Provide rumble strips where the plans show or as directed by the Resident as follows:

Prior to placing rumble strips, clean the roadway of sand and other materials, that may cause slippage.

Place one end of the rumble strips 6 inches from the roadway centerline. Extend the strips perpendicular to the direction of travel. Ensure strips lay flat on the roadway surface.

Only one series of rumble strips, placed before the first work zone, is required per direction of travel for multiple work zones spaced 1 mile or less apart. Work zones spaced greater than 1 mile apart require a separate series of rumble strips. Each lane shall use one group of temporary rumble strips.

Bracketed “Rumble Strip Ahead” and “Bump” signs shall be utilized and will be paid for under the respective construction sign pay items.

Maintenance:

Maintain rumble strips as follows:

If rumble strips slide, become out of alignment, or are no longer in the wheel path of approaching vehicles during the work period, thoroughly clean both sides of the rumble strips and reset on a clean roadway.

Repair or replace damaged rumble strips immediately.

652.4 Method of Measurement:

The accepted quantity of temporary portable rumble strips shall be measured by the unit complete in place, per lane closure application. A unit shall consist of 1 group of 3 full-lane width of rumble strips. As shown in the plans, a maximum of 3 units may be used at each lane closure. A unit shall be measured for each group of rumble strips, each time they are used for a lane closure.

652.5 Basis of Payment:

The accepted quantity of temporary portable rumble strips will be paid for at the contract unit price per unit which shall include the transport device. Payment is full compensation for providing, relocating, maintaining or replacing, and removing temporary portable rumble strips.

If the pay item is not included in the contract quantities, then the Authority does not anticipate the use of this item on the contract. If contractor wishes to utilize temporary portable rumble strips and the item is not in the contract, then the contractor may propose use of them to the Authority for consideration.

Pay Item		Pay Unit
652.46	Temporary Portable Rumble Strip	Unit

SPECIAL PROVISION

SECTION 652

MAINTENANCE OF TRAFFIC

(Flaggers)

The following section of the Supplemental Specification Section 652 have been revised as follows:

Section 652.2.4 Other Devices

Paragraph five is deleted and replaced with:

STOP/SLOW paddles shall be the primary and preferred hand-signaling device. Flags shall be limited to emergencies. The paddle shall have an octagonal shape and be at least 18 inches wide with letters at least 6 inches high and should be fabricated from light semi-rigid material. All STOP/SLOW Paddles.

STOP / SLOW paddles shall have high intensity prismatic retro reflective sheeting Type XI, have an octagonal shape on a rigid handle and shall be at least 18 inches wide with letters at least 6 inches high and shall be constructed from light semi-rigid material. The STOP (R1-1) face shall have white letters and a white border on a red background. The SLOW (W20-8) face shall have black letters and a black border on an orange background. Existing paddles of Type VII, Type VIII, or Type IX will not be permitted.

Section 652.4 Flaggers

Last sentence in first paragraph is deleted and replaced with:

Only flashing SLOW/STOP paddles meeting the requirements outlined in the MUTCD shall be used and the flagger station shall be illuminated to assure visibility in accordance with 652.6.2.

Add:

Flaggers shall not stop traffic on Turnpike mainline or interchange ramps. Only State Police are allowed to stop traffic on mainline or interchange ramps.

652.7 Method of Measurement

Add:

Flaggers shall only be measured for payment when utilized along Cutts Road within 200 feet of the Turnpike underpass. Flaggers used for the convenience of the Contractor will not be measured for payment and shall be considered incidental to other maintenance of traffic control items.

SPECIAL PROVISION

SECTION 719

SIGNING MATERIAL

Section 719.01 Reflective Sheeting

This Subsection is deleted in its entirety and replaced with the following:

Retroreflective sheeting for signs shall meet at a minimum the requirements for, ASTM 4956 – Type VII, Type VIII or Type IX (Prismatic), for all signs. All Type 1 Guide Signs shall meet at a minimum the requirements for ASTM 4956 –Type XI (Prismatic) sheeting. Use of overlay film that degrades the retroreflectivity of the sign sheeting (i.e. Avery-Dennison overlay film) will be prohibited.

Reflective sheeting, used in sign construction, shall have been manufactured within the six months immediately prior to the fabrication of each sign. Upon delivery at the job site of each shipment of signs, a letter of certification shall be provided that the reflective sheeting conforms to the requirements.

Signs may only be covered using materials and techniques explicitly approved by the sheeting manufacturer for that purpose and shall not alter the sign sheeting warranty.

- For Type 1 Guide Signs, all reflective sheeting shall be color matched on each sign unit.
- All warning signs shall be fluorescent yellow except for Ramp Advisory Speed signs which shall be yellow.
- All Construction Series signs that use orange backgrounds shall be fluorescent orange.
- All Pedestrian Signs shall be fluorescent yellow-green.
- EZ-PASS Purple shall conform to the FHWA Purple color block.

719.02 Demountable High Intensity Reflectorized Letters, Numerals, Symbols, and Borders

This Subsection, including the title, is deleted in its entirety and replaced with the following:

719.02 Direct Applied Reflectorized Letters, Numerals, Symbols, and Borders

Direct applied letters, numerals, symbols and borders shall consist of cut out sheeting shall meet at a minimum the requirements for ASTM 4956 – Type VII, Type VIII or Type XI (Prismatic) sheeting.

All Type 1 Guide Signs shall meet at a minimum the requirements for ASTM 4956 – Type XI (Prismatic) sheeting.

MAINE TURNPIKE AUTHORITY

SPECIFICATIONS

APPENDIX

Appendix A – Guide Sign Layouts

Appendix B – Construction Inspection Checklist

Appendix C – MS4 Stormwater Awareness Plan

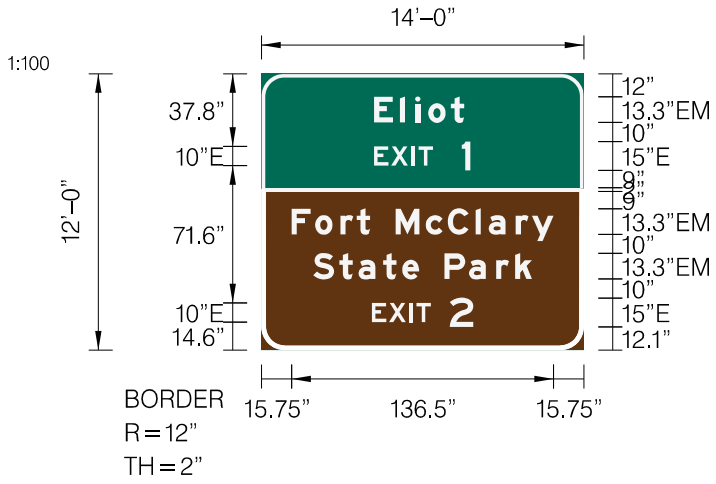
Appendix D – MS4 Targeted BMP Adoption Plan

APPENDIX A

GUIDE SIGN LAYOUTS

SIGN DETAIL

1:40



Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 0.48_N
WIDTH x HGHT.	14'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green/Brown
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

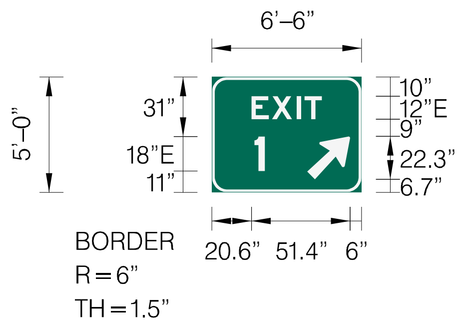
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	l	i	o	t												EM 2000
58.8	72.2	80.2	86.9	98.8											46.9	13.3\10
E	X	I	T	1												E 2000
58.8	67.7	78.4	81.9	104.4											50.1	10,15
F	o	r	t		M	c	C	l	a	r	y					EM 2000
15.8	28	41.2	49.7	56.6	69.9	85.6	97.2	111.7	118.4	132.5	140.9				136.5	13.3\10
S	t	a	t	e		P	a	r	k							EM 2000
27.1	40.6	50.6	63.4	73.4	82.1	95.4	108.2	122.3	132.1						113.8	13.3\10
E	X	I	T	2												E 2000
57.6	66.5	77.2	80.7	98.2											52.7	10,15

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 0.73_N	
WIDTH x HGHT.	6'–6" x 5'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	6"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL		X	Y	WID	HT
AR_Type A	315	49.7	6.7	18	28.4

LETTER POSITIONS (X)

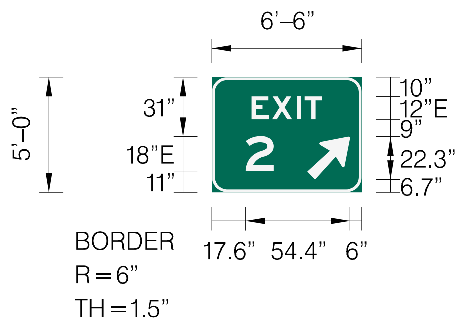
															LENGTH	SERIES/SIZE
E	X	I	T													E 2000
20.6	31.3	44.2	48.4												36.7	12
1																E 2000
22.2															5.4	18

SIGN DETAIL

1:40

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 1.06_N	
WIDTH x HGHT.	6'–6" x 5'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	6"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL	X	Y	WID	HT
AR_Type A 315	49.7	6.7	18	28.4

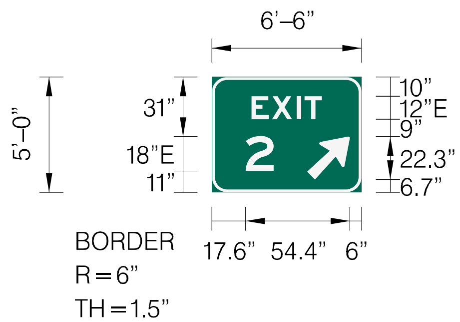
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T													E 2000
20.6	31.3	44.2	48.4												36.7	12
2																E 2000
17.6															14.6	18

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 1.18_S	
WIDTH x HGHT.	6'–6" x 5'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	6"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL	X	Y	WID	HT
AR_Type A 315	49.7	6.7	18	28.4

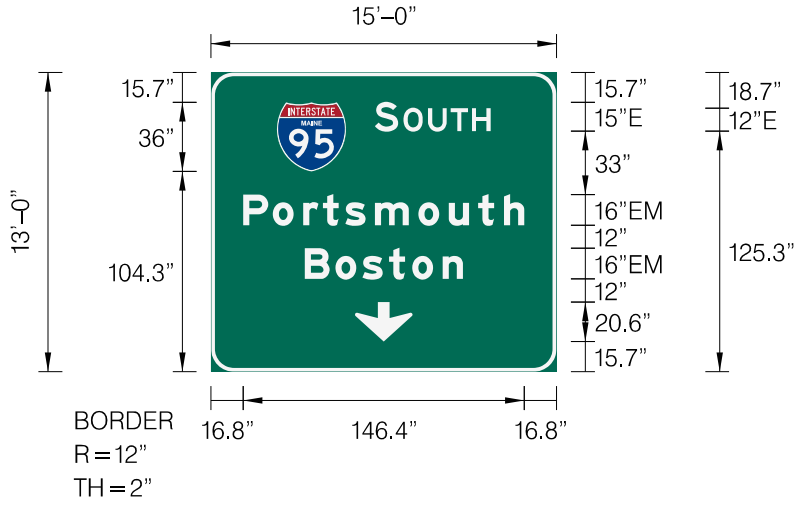
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T													E 2000
20.6	31.3	44.2	48.4												36.7	12
2																E 2000
17.6															14.6	18

SIGN DETAIL

1:40

1:100



MAINE TURNPIKE

Maine Turnpike Authority

SIGN NUMBER	OHSS I–95 MM 1.31_SL
WIDTH x HGHT.	15'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

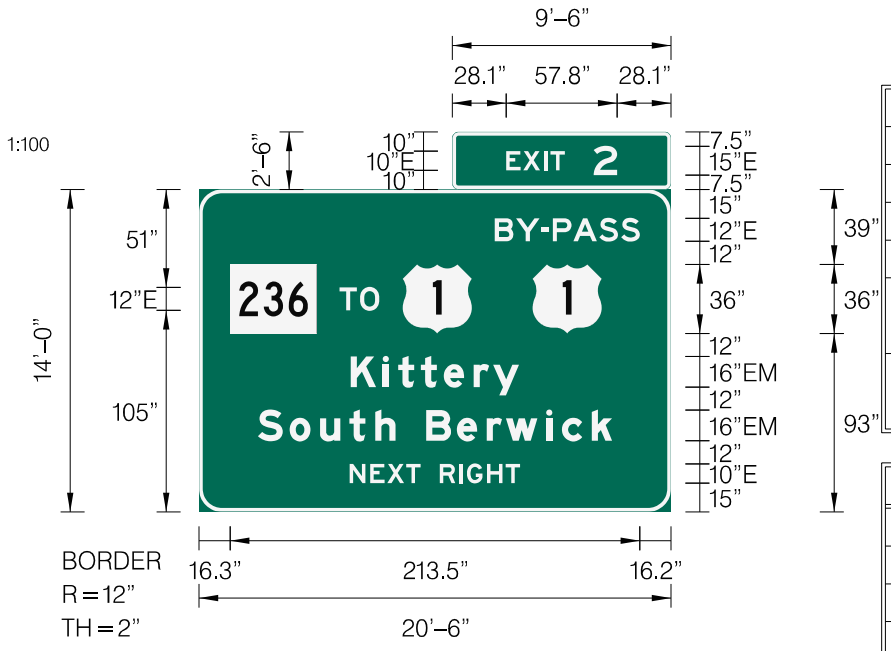
SYMBOL		X	Y	WID	HT
M1–1(95)	0	34.3	104.4	36	36
ARDOWN	0	75	15.8	30	20.6

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
S	O	U	T	H												E 2000
85.3	100.3	113.1	124.9	135.9											60.3	15,12
P	o	r	t	s	m	o	u	t	h							EM 2000
16.8	32.2	48	58.2	69.9	85.4	108	123.8	139.2	152.6						146.4	16/12
B	o	s	t	o	n											EM 2000
48.8	64.8	78.9	92.8	104.8	120.6										82.4	16/12

SIGN DETAIL

1:40



MAINE TURNPIKE

Maine Turnpike Authority

SIGN NUMBER	OHSS I-95 MM 1.31_SR
WIDTH x HGHT.	20'–6" x 14'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–5(236)	0	16.3	93	45	36
M1–4(1)	0	106.2	93	36	36
M1–4(1)	0	173.9	93	36	36

LETTER POSITIONS (X)

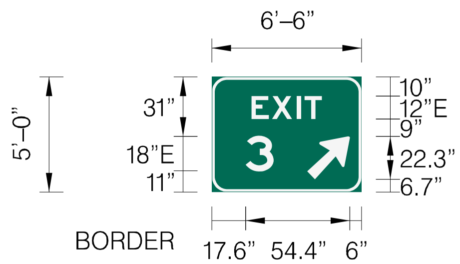
															LENGTH	SERIES/SIZE
E	X	I	T	2												E 2000
28.1	37	47.7	51.2	73.7											57.8	10,15
B	Y	–	P	A	S	S										E 2000
154.2	165.2	178.3	184.4	195.1	208.7	220.1									75.6	12
T	O															E 2000
73.3	83.9														20.8	12
K	i	t	t	e	r	y										EM 2000
79.2	95.8	103.8	115.6	127.6	143.2	153.2									87.7	16/12
S	o	u	t	h		B	e	r	w	i	c	k				EM 2000
30.8	47.2	63.1	78.4	91.9	102.4	118.4	134.4	150	160	181	189.2	204.7			184.5	16/12
N	E	X	T		R	I	G	H	T							E 2000
78.6	89.3	98.2	108	115.5	125.5	135.6	139.7	150.1	159.9						88.8	10

SIGN DETAIL
1:40

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 1.35_N
WIDTH x HGHT.	6'–6" x 5'–0"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

1:100



BORDER
R=6"
TH=1.5"

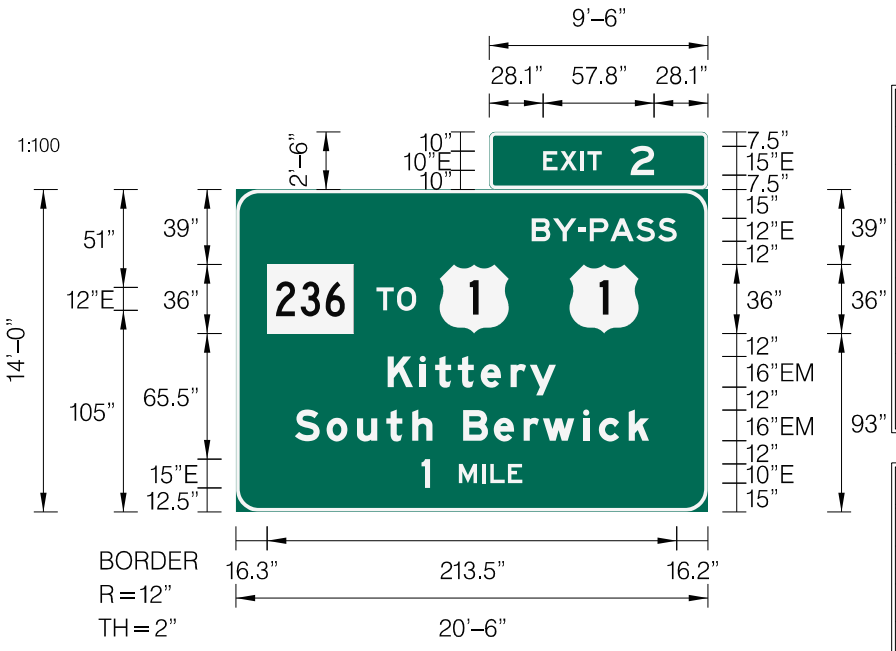
SYMBOL		X	Y	WID	HT
AR_Type A	315	49.7	6.7	18	28.4

LETTER POSITIONS (X)

														LENGTH	SERIES/SIZE
E	X	I	T												E 2000
20.6	31.3	44.2	48.4											36.7	12
3															E 2000
17.5														14.6	18

SIGN DETAIL

1:40



Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 2.47_S
WIDTH x HGHT.	20'–6" x 14'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–5(236)	0	16.3	93	45	36
M1–4(1)	0	106.2	93	36	36
M1–4(1)	0	173.9	93	36	36

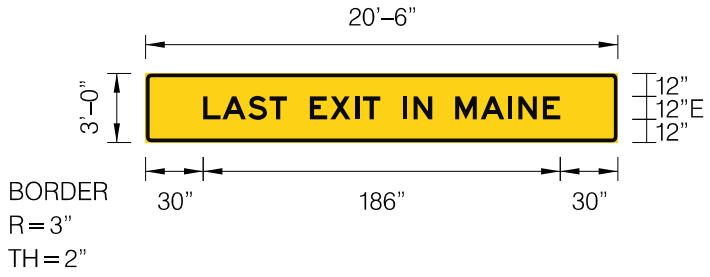
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	2												E 2000
28.1	37	47.7	51.2	73.7											57.8	10,15
B	Y	–	P	A	S	S										E 2000
154.2	165.2	178.3	184.4	195.1	208.7	220.1									75.6	12
T	O															E 2000
73.3	83.9														20.8	12
K	i	t	t	e	r	y										EM 2000
79.2	95.8	103.8	115.6	127.6	143.2	153.2									87.7	16/12
S	o	u	t	h		B	e	r	w	i	c	k				EM 2000
30.8	47.2	63.1	78.4	91.9	102.4	118.4	134.4	150	160	181	189.2	204.7			184.5	16/12
1	M	I	L	E												E 2000
96.7	116.2	128.2	132.6	141.8											52.6	15,10

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	SUPP I–95 MM 2.47_S
WIDTH x HGHT.	20'–6" x 3'–0"
BORDER WIDTH	2"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Yellow
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black

SYMBOL	X	Y	WID	HT

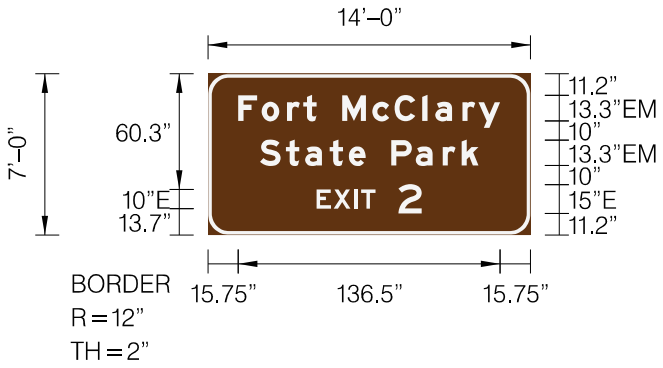
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
L	A	S	T		E	X	I	T		I	N					E 2000
30	40	53.5	64.6	73.6	85.6	96.2	109.1	113.3	122.3	134.3	139.6	149.3				12
M	A	I	N	E												E 2000
161.3	174.6	188.9	194.2	207											186	12

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 2.67_S
WIDTH x HGHT.	14'–0" x 7'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Brown
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

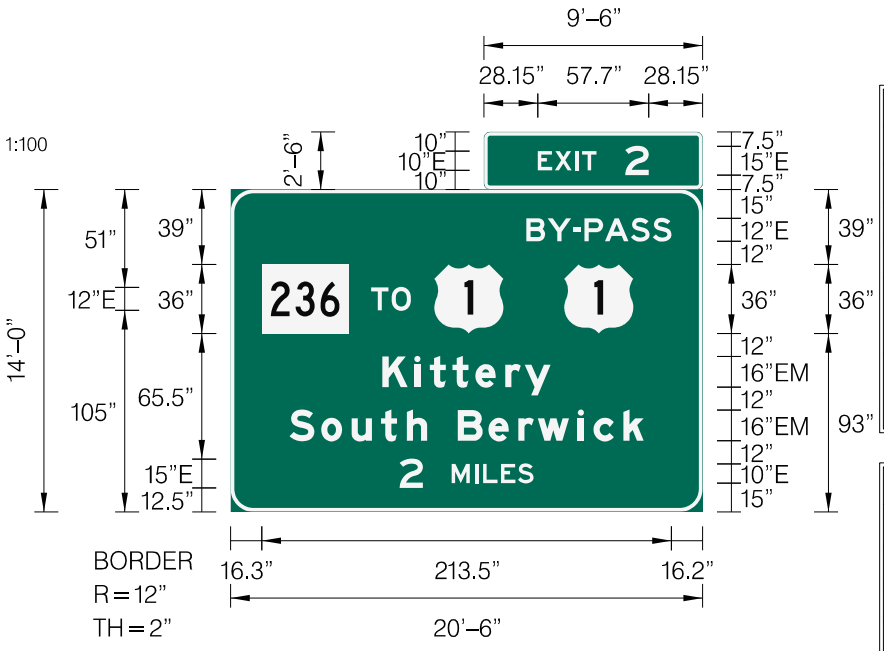
SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
F	o	r	t		M	c	C	l	a	r	y					EM 2000
15.8	28	41.2	49.7	56.6	69.9	85.6	97.2	111.7	118.4	132.5	140.9				136.5	13.3/10
S	t	a	t	e		P	a	r	k							EM 2000
27.1	40.6	50.6	63.4	73.4	82.1	95.4	108.2	122.3	132.1						113.8	13.3/10
E	X	I	T	2												E 2000
56.6	65.5	76.2	79.7	99.2											54.8	10,15

SIGN DETAIL

1:40



MAINE TURNPIKE

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 3.34_S
WIDTH x HGHT.	20'–6" x 14'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–5(236)	0	16.3	93	45	36
M1–4(1)	0	106.2	93	36	36
M1–4(1)	0	173.9	93	36	36

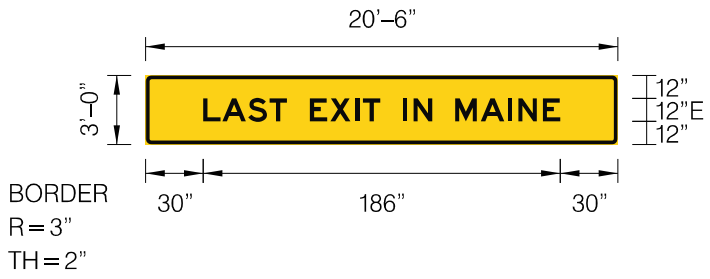
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	2												E 2000
28.1	37	47.7	51.2	73.7											57.7	10,15
B	Y	–	P	A	S	S										E 2000
154.2	165.2	178.3	184.4	195.1	208.7	220.1									75.6	12
T	O															E 2000
73.3	83.9														20.8	12
K	i	t	t	e	r	y										EM 2000
79.2	95.8	103.8	115.6	127.6	143.2	153.2									87.7	16/12
S	o	u	t	h		B	e	r	w	i	c	k				EM 2000
30.8	47.2	63.1	78.4	91.9	102.4	118.4	134.4	150	160	181	189.2	204.7			184.5	16/12
2	M	I	L	E	S											E 2000
88.1	115.3	127.3	131.7	140.9	149.8										69.7	15,10

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

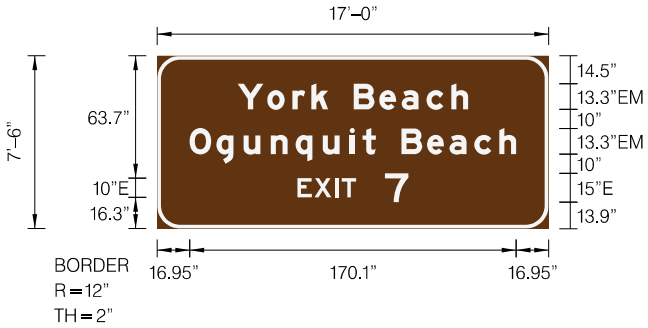
SIGN NUMBER	SUPP I–95 MM 3.34_S
WIDTH x HGHT.	20'–6" x 3'–0"
BORDER WIDTH	2"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Yellow
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
L	A	S	T		E	X	I	T		I	N					E 2000
30	40	53.5	64.6	73.6	85.6	96.2	109.1	113.3	122.3	134.3	139.6	149.3				12
M	A	I	N	E												E 2000
161.3	174.6	188.9	194.2	207											186	12

SIGN DETAIL
1:100



Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 4.48_N
WIDTH x HGHT.	17'–0" x 7'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Brown
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

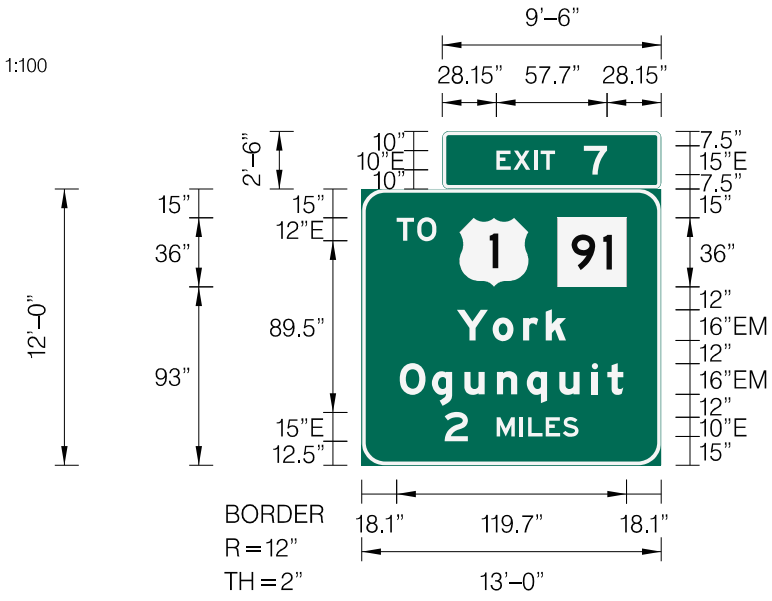
SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
Y	o	r	k		B	e	a	c	h							EM 2000
42	57.4	70.5	80.4	89.2	102.5	115.8	127.5	140.4	153.3						120.1	13.3/10
O	g	u	n	q	u	i	t		B	e	a	c	h			EM 2000
17	31	45.1	59.2	72.1	86.3	100.4	107.1	114	127.3	140.7	152.4	165.3	178.2		170.1	13.3/10
E	X	I	T	7												E 2000
73.1	82	92.7	96.2	118.7											57.8	10,15

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I-95 MM 4.65_N
WIDTH x HGHT.	13'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–4(1)	0	50.9	93	36	36
M1–5(91)	0	101.9	93	36	36

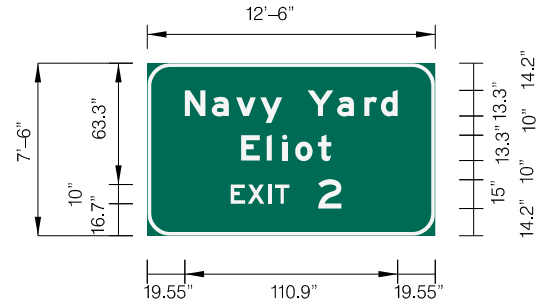
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	7												E 2000
28.1	37	47.7	51.2	73.7											57.7	10,15
T	O															E 2000
18.1	28.8														20.8	12
Y	o	r	k													EM 2000
49.6	68.2	84	95.8												56.8	16/12
O	g	u	n	q	u	i	t									EM 2000
19.8	36.6	53.5	70.5	86	103	119.9	127.9								116.5	16/12
2	M	I	L	E	S											E 2000
43.1	70.3	82.3	86.7	95.9	104.8										69.8	15,10

SIGN DETAIL

Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 5.52_S
WIDTH x HGHT.	12'-6" x 7'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White



BORDER
R=12"
TH=2"

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
N	a	v	y		Y	a	r	d								EM 2000
19.5	33.6	46.3	58.9	70.2	83.5	98.9	113	121.7							110.9	13.3/10
E	l	i	o	t												EM 2000
48.8	62.3	70.2	77	88.9											46.9	13.3/10
E	X	I	T	2												E 2000
43.4	52.3	63	66.5	89											57.7	10,15

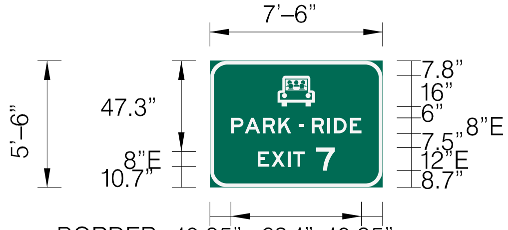
SIGN DETAIL

1:100

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 5.70_N	
WIDTH x HGHT.	7’–6” x 5’–6”	
BORDER WIDTH	2”	
CORNER RADIUS	9”	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

1:100



BORDER 10.95” 68.1” 10.95”
R=9”
TH=2”

SYMBOL		X	Y	WID	HT
Park and Ride	0	35.2	42.2	19.7	16

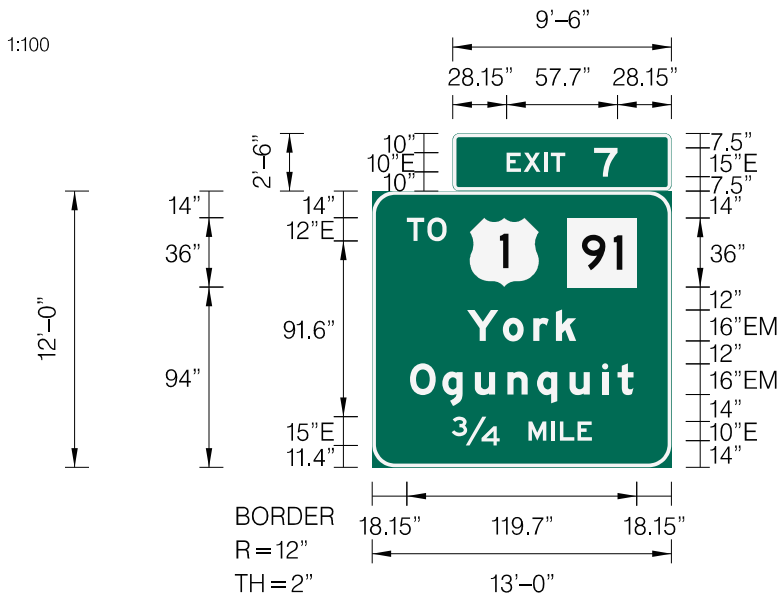
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
P	A	R	K		–		R	I	D	E						E 2000
11	18.1	27.6	35.7	42.3	46.3	49.1	53.1	61.2	64.7	73					68.1	8
E	X	I	T	7												E 2000
24.9	32	40.6	43.4	55.4											40.2	8,12

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 5.87_N
WIDTH x HGHT.	13'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–4(1)	0	50.9	94	36	36
M1–5(91)	0	101.9	94	36	36

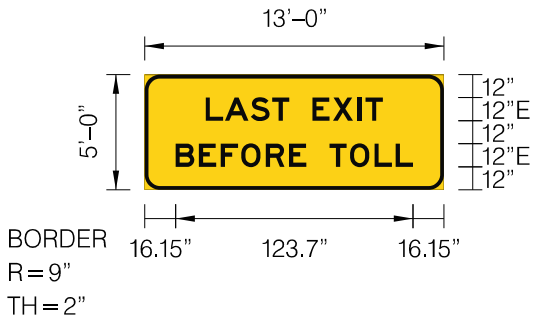
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	7												E 2000
28.1	37	47.7	51.2	73.7											57.7	10,15
T	O															E 2000
18.1	28.8														20.8	12
Y	o	r	k													EM 2000
49.6	68.1	84	95.8												56.8	16/12
O	g	u	n	q	u	i	t									EM 2000
19.7	36.5	53.5	70.5	86	102.9	119.9	127.9								116.5	16/12
3/4	M	I	L	E												E 2000
41.5	81.4	93.4	97.8	107											73.1	15,10

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	SUPP I–95 MM 5.87_N2
WIDTH x HGHT.	13'–0" x 5'–0"
BORDER WIDTH	2"
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Yellow
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/White

SYMBOL	X	Y	WID	HT

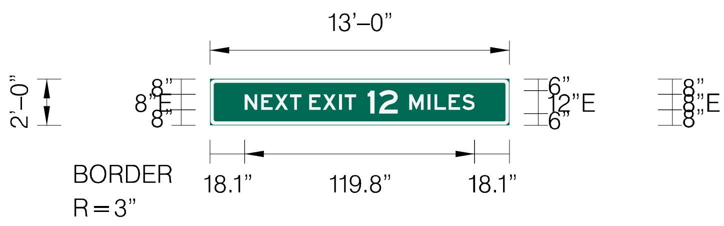
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
L	A	S	T		E	X	I	T								E 2000
31.9	41.8	55.4	66.4	75.4	87.4	98.1	110.9	115.1							92.3	12
B	E	F	O	R	E		T	O	L	L						E 2000
16.1	28.3	39.7	50.3	63.2	75.3	84.3	96.3	107	119.8	130.9					123.7	12

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	SUPP I–95 MM 5.87_N1	
WIDTH x HGHT.	13'–0" x 2'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	3"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL	X	Y	WID	HT

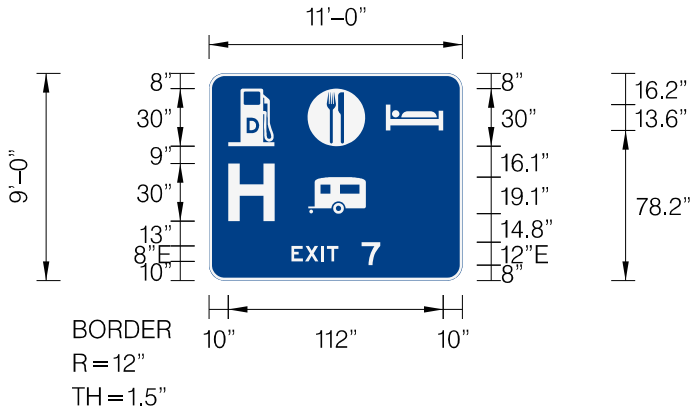
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
N	E	X	T		E	X	I	T	1	2						E 2000
18.1	26.7	33.8	41.6	47.6	51.6	58.7	67.3	70.1	82.1	88.1						8,12
M	I	L	E	S												E 2000
103.8	113.4	116.9	124.3	131.4											119.8	8,12

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 6.09_N
WIDTH x HGHT.	11'–0" x 9'–0"
BORDER WIDTH	1.5"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Blue
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

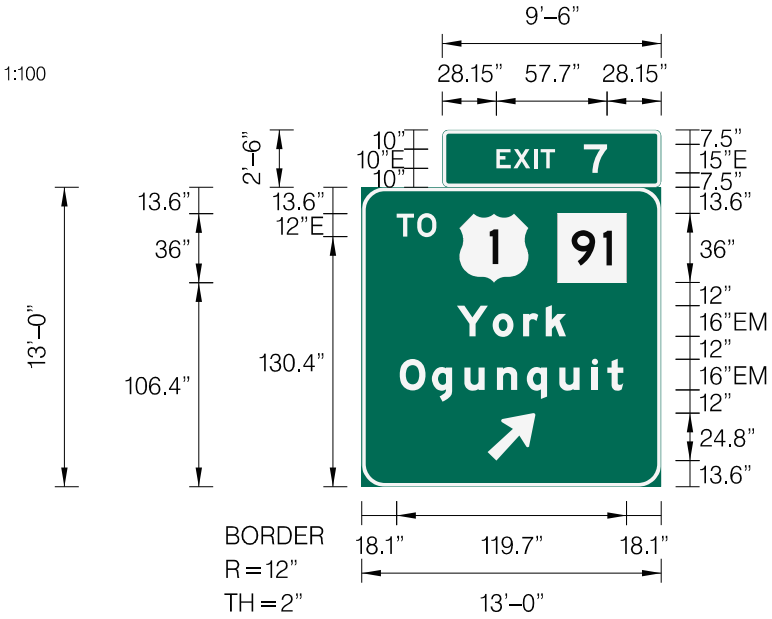
SYMBOL		X	Y	WID	HT
Lodging	0	92	78.2	30	13.6
Diesel Fuel	0	10	70	24.1	30
Food	0	51.3	70	30	30
Trailer Camping	0	51.6	34.8	30	19.1
Hospital	0	10	31	24.2	30

LETTER POSITIONS (X)

E	X	I	T	7											LENGTH	SERIES/SIZE
42.9	50	58.6	61.4	79.4											46.2	E 2000 8,12

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I–95 MM 6.51_N
WIDTH x HGHT.	13'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–4(1)	0	50.9	106.4	36	36
M1–5(91)	0	101.9	106.4	36	36
AR_Type A	315	65.6	13.6	20	31.5

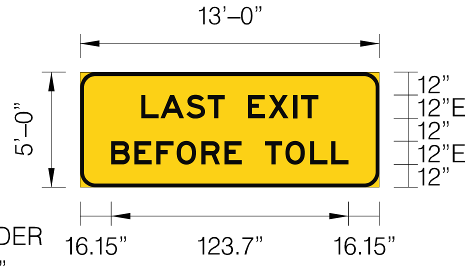
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	7												E 2000
28.1	37	47.7	51.2	73.7											57.7	10,15
T	O															E 2000
18.1	28.8														20.8	12
Y	o	r	k													EM 2000
49.6	68.2	84	95.8												56.8	16/12
O	g	u	n	q	u	i	t									EM 2000
19.8	36.6	53.5	70.5	86	103	119.9	127.9								116.5	16/12

SIGN DETAIL

Maine Turnpike Authority

1:100



BORDER
R=9"
TH=2"

SIGN NUMBER	SUPP I–95 MM 6.51_N	
WIDTH x HGHT.	13'–0" x 5'–0"	
BORDER WIDTH	2"	
CORNER RADIUS	9"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Yellow
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	Black/White

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

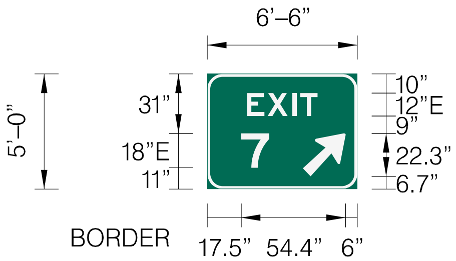
															LENGTH	SERIES/SIZE
L	A	S	T		E	X	I	T								E 2000
31.9	41.8	55.4	66.4	75.4	87.4	98.1	110.9	115.1							92.3	12
B	E	F	O	R	E		T	O	L	L						E 2000
16.1	28.3	39.7	50.3	63.2	75.3	84.3	96.3	107	119.8	130.9					123.7	12

SIGN DETAIL

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 6.68_N	
WIDTH x HGHT.	6'–6" x 5'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	6"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

1:100



BORDER
R=6"
TH=1.5"

SYMBOL	X	Y	WID	HT
AR_Type A 315	49.7	6.7	18	28.4

LETTER POSITIONS (X)

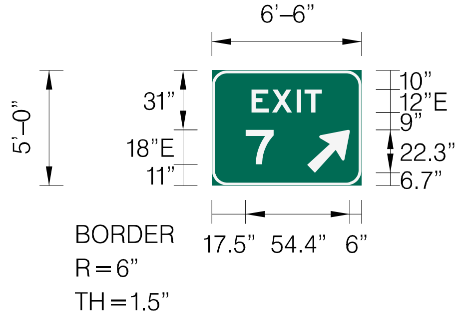
															LENGTH	SERIES/SIZE
E	X	I	T													E 2000
20.6	31.3	44.2	48.4												36.7	12
7																E 2000
17.5															14.6	18

SIGN DETAIL
1:40

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 7.05_S	
WIDTH x HGHT.	6'–6" x 5'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	6"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

1:100



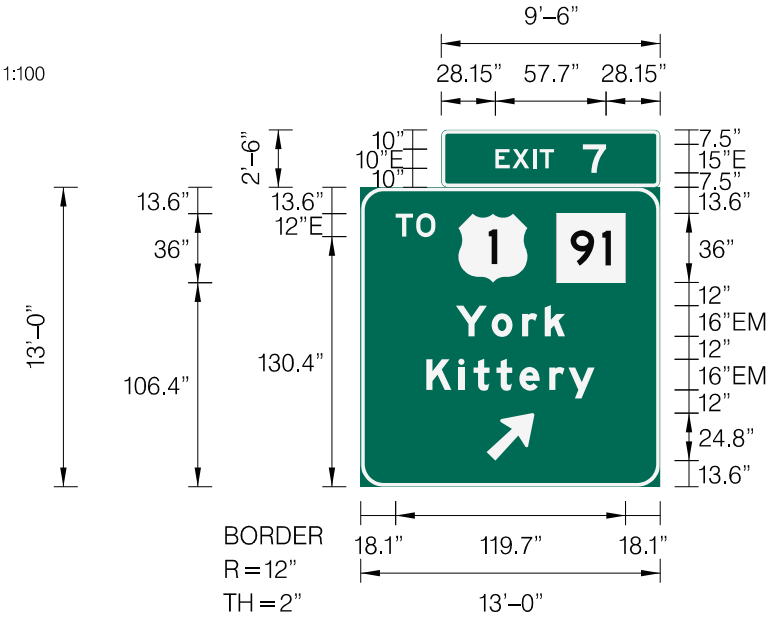
SYMBOL	X	Y	WID	HT
AR_Type A 315	49.7	6.7	18	28.4

LETTER POSITIONS (X)

														LENGTH	SERIES/SIZE
E	X	I	T												E 2000
20.6	31.3	44.2	48.4											36.7	12
7															E 2000
17.5														14.6	18

SIGN DETAIL

1:40



MAINE TURNPIKE

Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 7.14_S
WIDTH x HGHT.	13'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–4(1)	0	50.9	106.4	36	36
M1–5(91)	0	101.9	106.4	36	36
AR_Type A	315	65.6	13.6	20	31.5

LETTER POSITIONS (X)

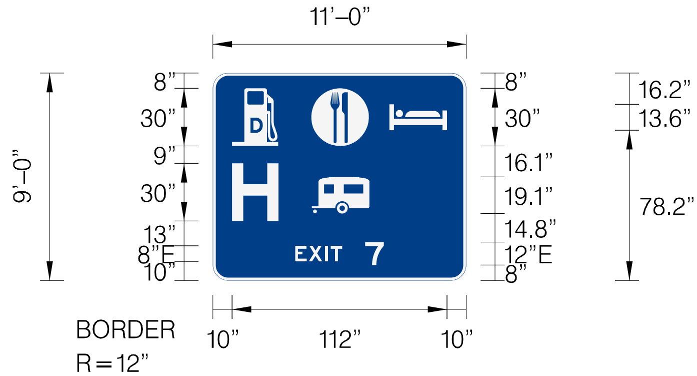
															LENGTH	SERIES/SIZE
E	X	I	T	7												E 2000
28.1	37	47.7	51.2	73.7											57.7	10,15
T	O															E 2000
18.1	28.8														20.8	12
Y	o	r	k													EM 2000
49.6	68.2	84	95.8												56.8	16/12
K	i	t	t	e	r	y										EM 2000
34.2	50.8	58.8	70.6	82.6	98.2	108.2									87.7	16/12

SIGN DETAIL
1:40

Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 7.44_S	
WIDTH x HGHT.	11'–0" x 9'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	12"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Blue
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

1:100



BORDER
R=12"
TH=1.5"

SYMBOL		X	Y	WID	HT
Lodging	0	92	78.2	30	13.6
Diesel Fuel	0	10	70	24.1	30
Food	0	51.3	70	30	30
Trailer Camping	0	51.6	34.8	30	19.1
Hospital	0	10	31	24.2	30

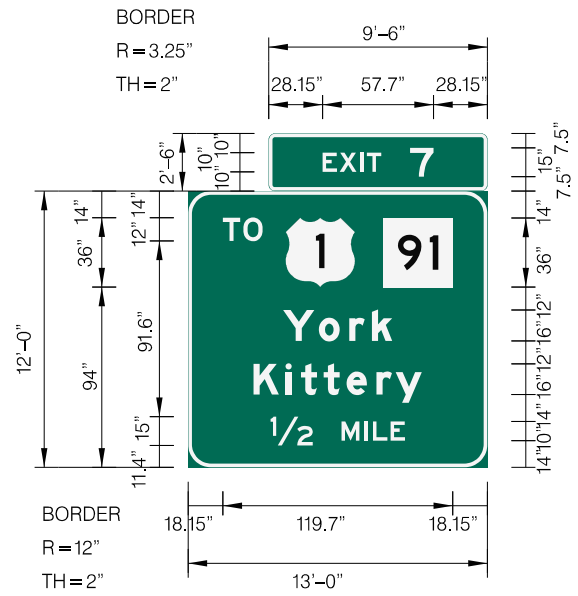
LETTER POSITIONS (X)

E	X	I	T	7	LENGTH	SERIES/SIZE
						E 2000
42.9	50	58.6	61.4	79.4	46.2	8,12

SIGN DETAIL

1:40

Maine Turnpike Authority



SIGN NUMBER	I–95 MM 7.61_S
WIDTH x HGHT.	13'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

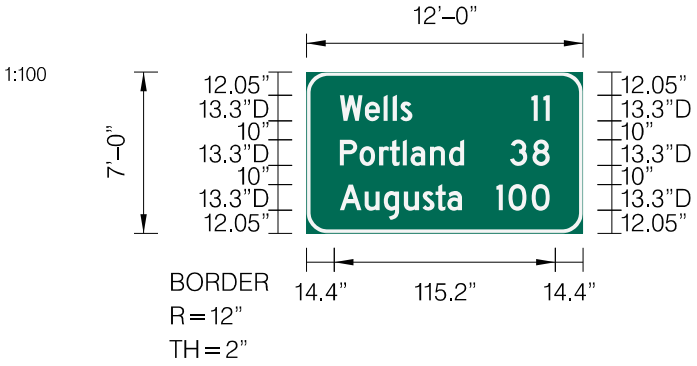
SYMBOL		X	Y	WID	HT
M1–4(1)	0	50.9	94	36	36
M1–5(91)	0	101.9	94	36	36

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	7												E 2000
28.1	37	47.7	51.2	73.7											57.7	10,15
T	O															E 2000
18.1	28.8														20.8	12
Y	o	r	k													EM 2000
49.6	68.2	84	95.8												56.8	16/12
K	i	t	t	e	r	y										EM 2000
34.2	50.8	58.8	70.6	82.6	98.2	108.2									87.7	16/12
1/2	M	I	L	E												E 2000
43	79.9	91.9	96.3	105.5											70.1	15,10

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I-95 MM 7.92_N
WIDTH x HGHT.	12'–0" x 7'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

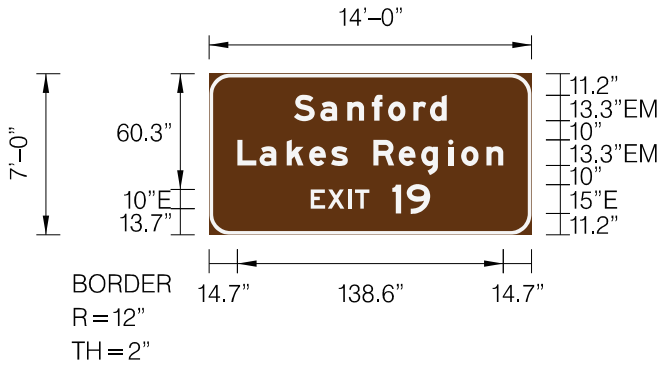
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
W	e	l	l	s	1	1										D 2000
17.3	30.3	40.1	44.8	48.8	117.1	123.4									109.4	13.3/10
P	o	r	t	l	a	n	d	3	8							D 2000
17.3	27.6	37.8	43.2	50	54.2	64.3	74.1	105.9	117.6						109.4	13.3/10
A	u	g	u	s	t	a	1	0	0							D 2000
17.3	30.2	40.2	50.7	60.4	67.2	73.3	98.9	105.1	117.2						109.4	13.3/10

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I-95 MM 11.25_N
WIDTH x HGHT.	14'–0" x 7'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Brown
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

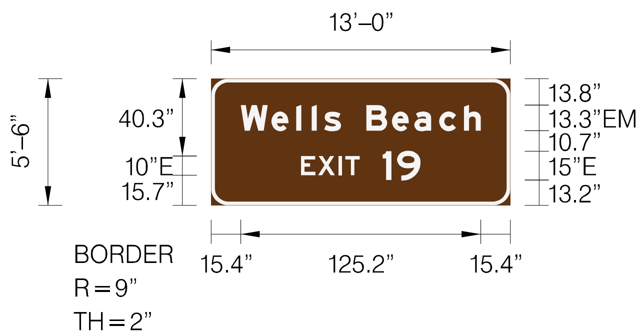
															LENGTH	SERIES/SIZE
S	a	n	f	o	r	d										EM 2000
44.2	57.9	72	84.7	93.2	106.4	115.1									79.7	13.3/10
L	a	k	e	s		R	e	g	i	o	n					EM 2000
14.7	26.3	40.4	52.1	63.5	72.3	85.6	98.8	110.5	124.6	131.3	144.5				138.6	13.3/10
E	X	I	T	1	9											E 2000
52.9	61.8	72.5	76	95.5	103										62.3	10,15

SIGN DETAIL

1:100

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 17.46_N
WIDTH x HGHT.	13'–0" x 5'–6"
BORDER WIDTH	2"
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Brown
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White



SYMBOL	X	Y	WID	HT

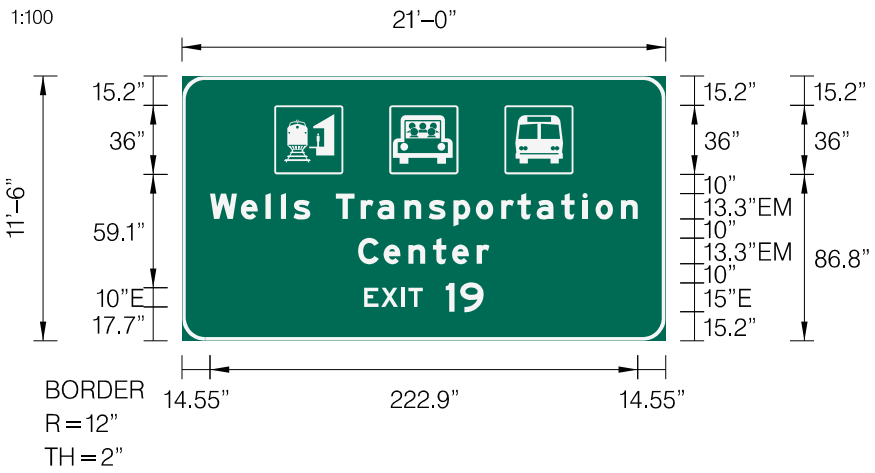
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
W	e	l	l	s		B	e	a	c	h						EM 2000
15.4	31.5	44.4	52.4	58.9	67.7	81	94.3	106	118.9	131.8					125.2	13.3/10
E	X	I	T	1	9											E 2000
46.9	55.8	66.5	70	89.5	97										62.3	10,15

SIGN DETAIL

1:40

Maine Turnpike Authority



SIGN NUMBER	GM I–95 MM 17.63_N
WIDTH x HGHT.	21'–0" x 11'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

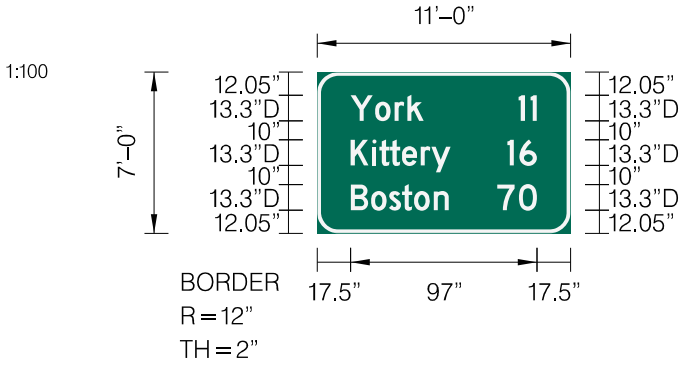
SYMBOL		X	Y	WID	HT
Train	0	48	86.8	36	36
Car Pool	0	108	86.8	36	36
Bus	0	168	86.8	36	36

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
W	e	l	l	s											EM 2000	
14.5	30.6	43.5	51.5	58	66.8										13.3/10	
T	r	a	n	s	p	o	r	t	a	t	i	o	n		EM 2000	
80.1	93.1	101.8	115.9	128.5	141.4	153.1	166.3	174.8	184.8	197.6	208.7	215.5	228.7		222.9	13.3/10
C	e	n	t	e	r										EM 2000	
91.8	105.1	118	130.7	140.7	153.6										68.5	13.3/10
E	X	I	T	1	9										E 2000	
94.9	103.8	114.5	118	137.5	145										62.3	10,15

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I–95 MM 18.31_S
WIDTH x HGHT.	11'–0" x 7'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

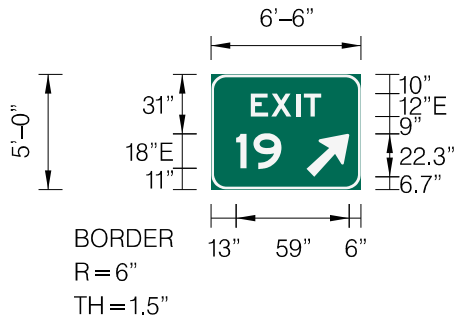
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
Y	o	r	k	1	1											D 2000
17.5	30.1	40.4	47	104.9	111.2										97	13.3/10
K	i	t	t	e	r	y	1	6								D 2000
17.5	28.8	32.4	38	44.2	53.9	59.5	99.2	105.4							97	13.3/10
B	o	s	t	o	n	7	0									D 2000
17.5	28	37.5	44.3	50.5	60.8	93.8	105.1								97	13.3/10

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 19.39_N
WIDTH x HGHT.	6'–6" x 5'–0"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
AR_Type A	315	49.7	6.7	18	28.4

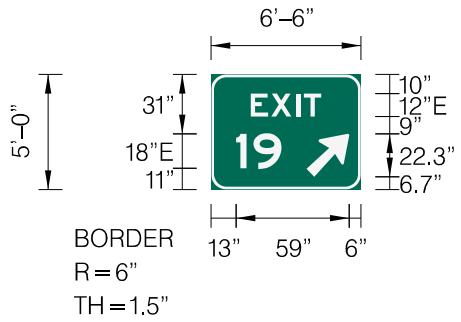
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T													E 2000
20.6	31.3	44.2	48.4												36.7	12
1	9															E 2000
13	22														23.6	18

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 19.43_S
WIDTH x HGHT.	6'–6" x 5'–0"
BORDER WIDTH	1.5"
CORNER RADIUS	6"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

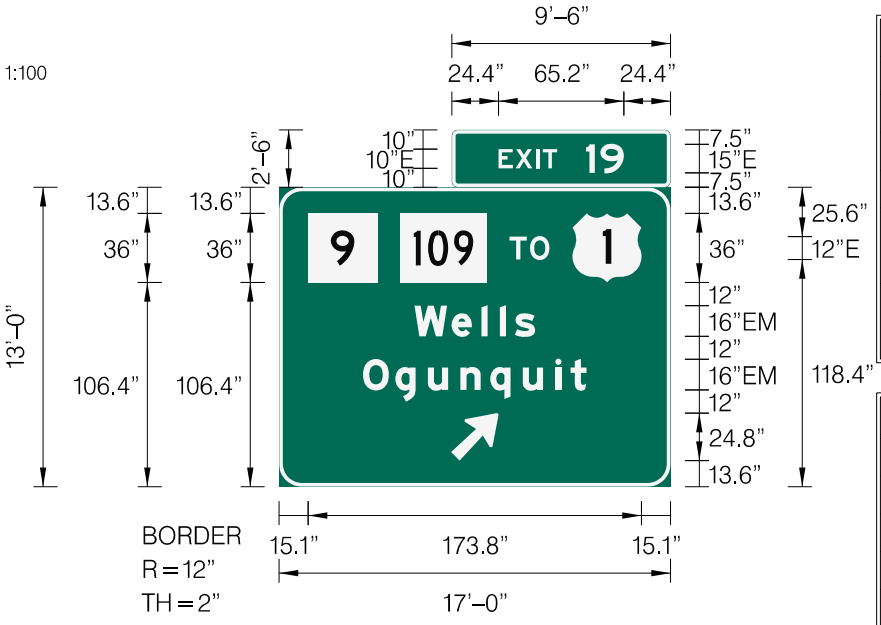
SYMBOL	X	Y	WID	HT
AR_Type A 315	49.7	6.7	18	28.4

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T													E 2000
20.6	31.3	44.2	48.4												36.7	12
1	9															E 2000
13	22														23.6	18

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I–95 MM 19.58_S
WIDTH x HGHT.	17'–0" x 13'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

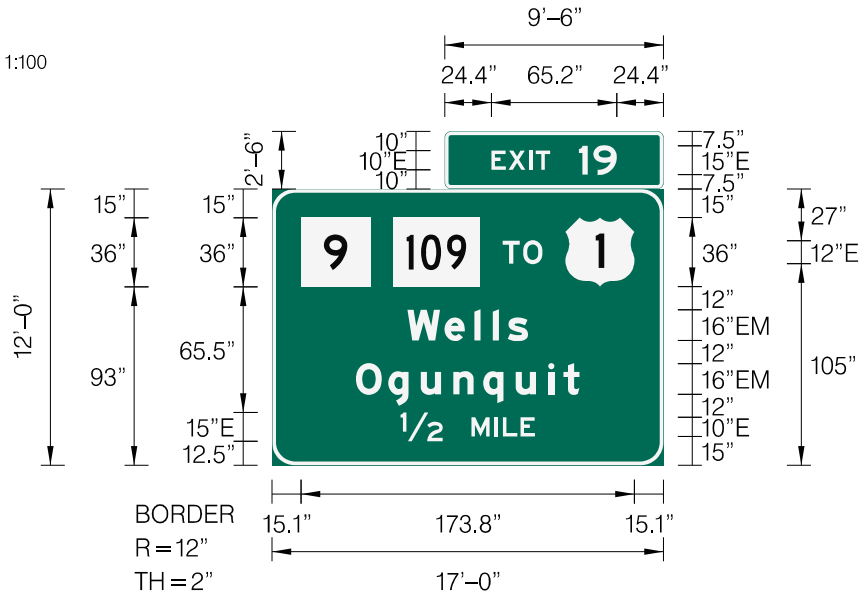
SYMBOL		X	Y	WID	HT
M1–5(9)	0	15.1	106.4	36	36
M1–5(109)	0	63.1	106.4	45	36
M1–4(1)	0	152.9	106.4	36	36
AR_Type A	315	89.6	13.6	20	31.5

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	1	9											E 2000
24.4	33.3	44	47.5	70	77.5										65.2	10,15
T	O															E 2000
120.1	130.8														20.8	12
W	e	I	I	s												EM 2000
70.6	89.9	105.4	115	122.9											62.9	16/12
O	g	u	n	q	u	i	t									EM 2000
43.8	60.6	77.5	94.5	110	127	143.9	151.9								116.5	16/12

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I–95 MM 20.06_S
WIDTH x HGHT.	17'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–5(9)	0	15.1	93	36	36
M1–5(109)	0	63.1	93	45	36
M1–4(1)	0	152.9	93	36	36

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	1	9											E 2000
24.4	33.3	44	47.5	70	77.5										65.2	10,15
T	O															E 2000
120.1	130.8														20.8	12
W	e	I	I	s												EM 2000
70.6	89.9	105.4	115	122.9											62.9	16/12
O	g	u	n	q	u	i	t									EM 2000
43.8	60.6	77.5	94.5	110	127	143.9	151.9								116.5	16/12
1/2	M	I	L	E												E 2000
67	103.9	115.9	120.3	129.5											70.1	15,10

SIGN DETAIL

Maine Turnpike Authority

SIGN NUMBER	SUPP I–95 MM 20.06_S	
WIDTH x HGHT.	17'–0" x 2'–0"	
BORDER WIDTH	1.5"	
CORNER RADIUS	3"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

1:100

BORDER
R=3"
TH=1.5"

SYMBOL	X	Y	WID	HT

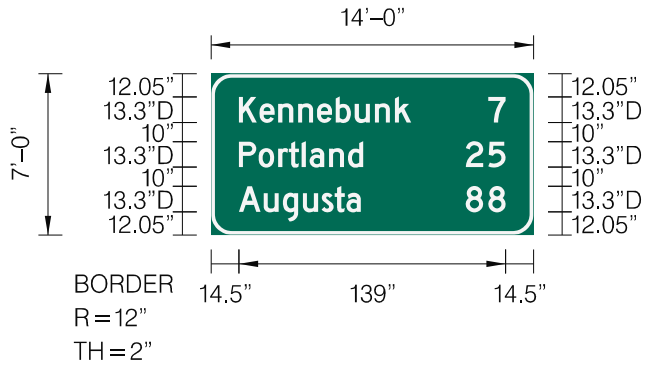
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
N	E	X	T		E	X	I	T	1	2						E 2000
42.1	50.7	57.8	65.6	71.6	75.6	82.7	91.3	94.1	106.1	112.1						8,12
M	I	L	E	S												E 2000
127.8	137.4	140.9	148.3	155.4											119.8	8,12

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	GM I-95 MM 20.26_N
WIDTH x HGHT.	14'–0" x 7'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

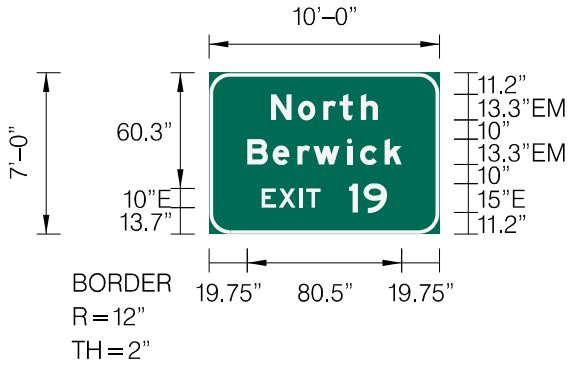
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
K	e	n	n	e	b	u	n	k								D 2000
14.5	25.3	35	45.4	55.2	64.9	74.9	85.4	95.8							89.8	13.3/10
7																D 2000
144.4															9	13.3
P	o	r	t	l	a	n	d									D 2000
14.5	24.7	35	40.4	47.2	51.3	61.4	71.3								64.8	13.3/10
2	5															D 2000
132.7	144.4														20.7	13.3
A	u	g	u	s	t	a										D 2000
14.5	27.4	37.4	47.9	57.6	64.4	70.5									63.6	13.3/10
8	8															D 2000
132.7	144.4														20.8	13.3

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 20.44_S
WIDTH x HGHT.	10'–0" x 7'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	X	Y	WID	HT

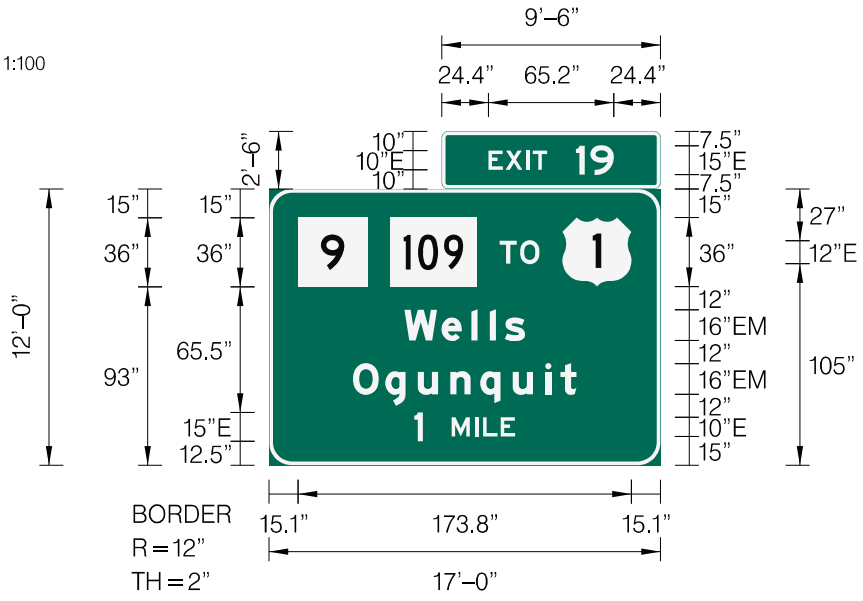
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
N	o	r	t	h												EM 2000
32.1	46.2	59.4	67.9	79.1											55.7	13.3/10
B	e	r	w	i	c	k										EM 2000
19.8	33.1	46	54.3	71.8	78.6	91.5									80.5	13.3/10
E	X	I	T	1	9											E 2000
27.4	36.3	47	50.5	73	80.5										65.2	10,15

SIGN DETAIL

Maine Turnpike Authority

1:100



SIGN NUMBER	GM I–95 MM 20.61_S
WIDTH x HGHT.	17'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–5(9)	0	15.1	93	36	36
M1–5(109)	0	63.1	93	45	36
M1–4(1)	0	152.9	93	36	36

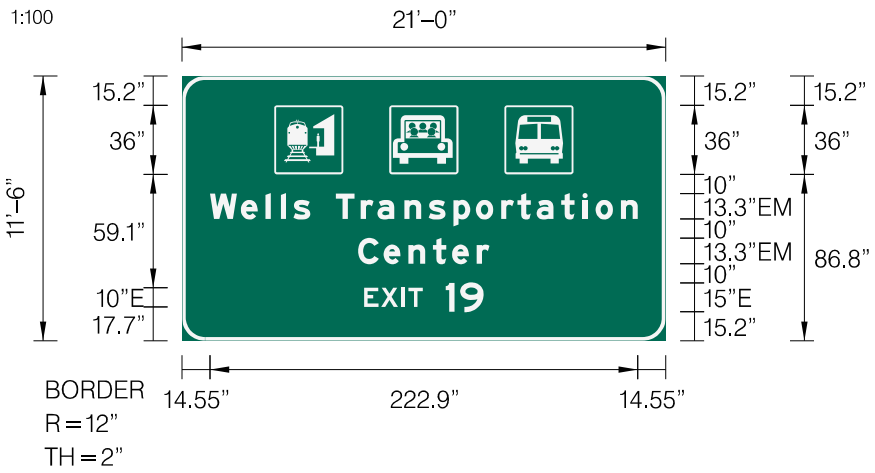
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	1	9											E 2000
24.4	33.3	44	47.5	70	77.5										65.2	10,15
T	O															E 2000
120.1	130.8														20.8	12
W	e	I	I	s												EM 2000
70.6	89.9	105.4	115	122.9											62.9	16/12
O	g	u	n	q	u	i	t									EM 2000
43.8	60.6	77.5	94.5	110	127	143.9	151.9								116.5	16/12
1	M	I	L	E												E 2000
75.7	95.2	107.2	111.6	120.8											52.6	15,10

SIGN DETAIL

1:40

Maine Turnpike Authority



SIGN NUMBER	GM I-95 MM 21.01_S
WIDTH x HGHT.	21'–0" x 11'–6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

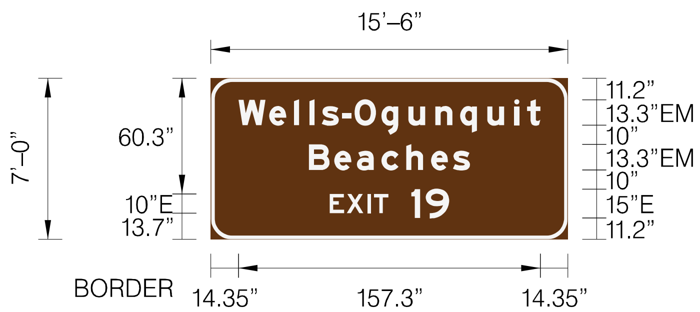
SYMBOL		X	Y	WID	HT
Train	0	48	86.8	36	36
Car Pool	0	108	86.8	36	36
Bus	0	168	86.8	36	36

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
W	e	l	l	s												EM 2000
14.5	30.6	43.5	51.5	58	66.8											13.3/10
T	r	a	n	s	p	o	r	t	a	t	i	o	n			EM 2000
80.1	93.1	101.8	115.9	128.5	141.4	153.1	166.3	174.8	184.8	197.6	208.7	215.5	228.7		222.9	13.3/10
C	e	n	t	e	r											EM 2000
91.8	105.1	118	130.7	140.7	153.6										68.5	13.3/10
E	X	I	T	1	9											E 2000
94.9	103.8	114.5	118	137.5	145										62.3	10,15

SIGN DETAIL

1:100



BORDER
R=12”
TH=2”

Maine Turnpike Authority

SIGN NUMBER	GM I–95 MM 21.21_S
WIDTH x HGHT.	15’–6” x 7’–0”
BORDER WIDTH	2”
CORNER RADIUS	12”
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Brown
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

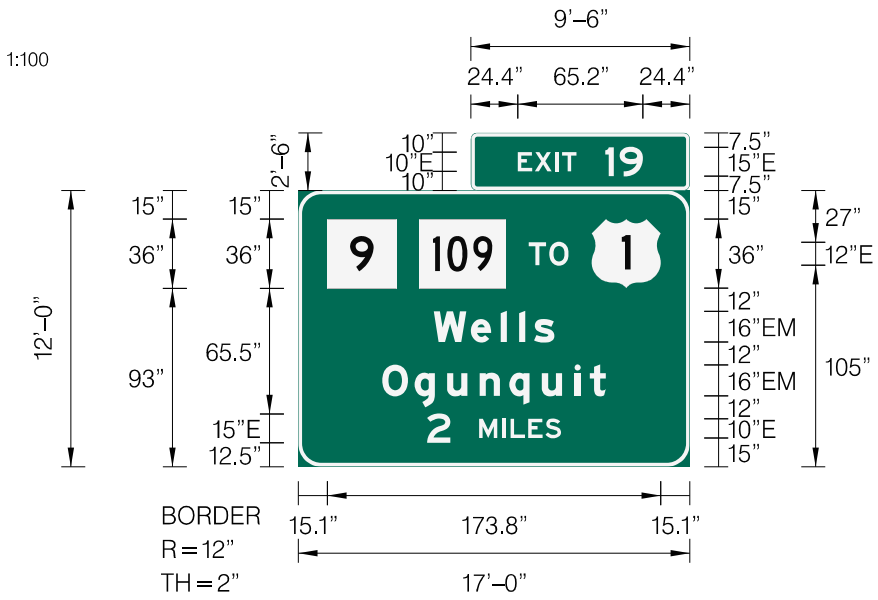
SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
W	e	l	l	s	–	O	g	u	n	q	u	i	t			EM 2000
14.3	30.4	43.3	51.3	57.8	68.5	74.8	88.8	102.9	117	129.9	144	158.1	164.8		157.3	13.3/10
B	e	a	c	h	e	s										EM 2000
51	64.3	76	88.9	101.8	114.7	126.2									83.9	13.3/10
E	X	I	T	1	9											E 2000
61.9	70.8	81.5	85	104.5	112										62.3	10,15

SIGN DETAIL

Maine Turnpike Authority



SIGN NUMBER	GM I-95 MM 21.54_S
WIDTH x HGHT.	17'–0" x 12'–0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL		X	Y	WID	HT
M1–5(9)	0	15.1	93	36	36
M1–5(109)	0	63.1	93	45	36
M1–4(1)	0	152.9	93	36	36

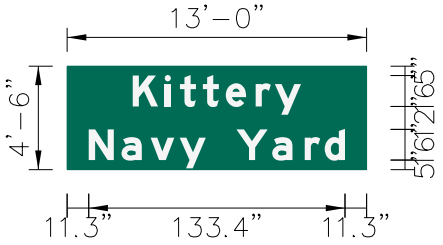
LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
E	X	I	T	1	9											E 2000
24.4	33.3	44	47.5	70	77.5										65.2	10,15
T	O															E 2000
120.1	130.8														20.8	12
W	e	l	l	s												EM 2000
70.6	89.9	105.4	115	122.9											62.9	16/12
O	g	u	n	q	u	i	t									EM 2000
43.8	60.6	77.5	94.5	110	127	143.9	151.9								116.5	16/12
2	M	I	L	E	S											E 2000
67.1	94.3	106.3	110.7	119.9	128.8										69.8	15,10

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	OL–1 I–95 NH_NR
WIDTH x HGHT.	13'–0" x 4'–6"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/Green

SYMBOL	X	Y	WID	HT

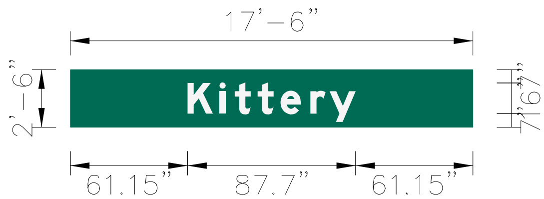
LETTER POSITIONS (X)

														LENGTH	SERIES/SIZE
K	i	t	t	e	r	y									EM 2000
34.2	50.8	58.8	70.6	82.6	98.2	108.2								87.7	16/12
N	a	v	y		Y	a	r	d							EM 2000
11.3	28.2	43.4	58.6	72.2	88.2	106.8	123.8	134.2						133.4	16/12

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	OL–2 MM 0.40_N	
WIDTH x HGHT.	17'–6" x 2'–6"	
BORDER WIDTH	0"	
CORNER RADIUS	0"	
MOUNTING	Ground	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/Green

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

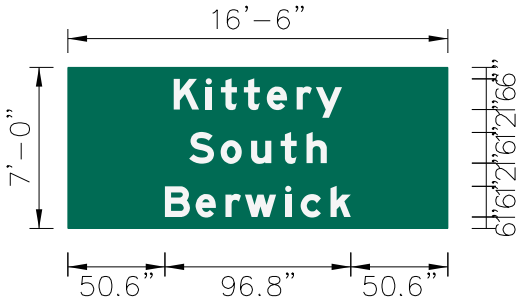
															LENGTH	SERIES/SIZE
K	i	t	t	e	r	y										EM 2000
61.2	77.8	85.8	97.6	109.6	125.2	135.2									87.7	16/12

SIGN DETAIL

1:40

1:100

Maine Turnpike Authority



SIGN NUMBER	OL–4 I–95 MM 0.69_NL
WIDTH x HGHT.	16'–6" x 7'–0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/Green

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

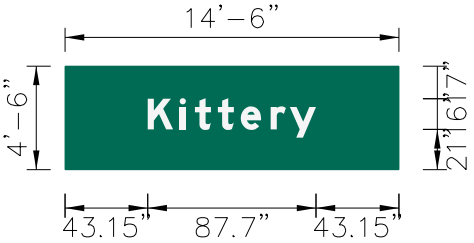
															LENGTH	SERIES/SIZE
K	i	t	t	e	r	y										EM 2000
55.2	71.8	79.8	91.6	103.6	119.2	129.2									87.7	16/12
S	o	u	t	h												EM 2000
63.2	79.6	95.5	110.8	124.3											71.7	16/12
B	e	r	w	i	c	k										EM 2000
50.6	66.6	82.1	92.2	113.2	121.3	136.8									96.8	16/12

SIGN DETAIL

1:40

1:100

Maine Turnpike Authority



SIGN NUMBER	OL–5 I–95 MM 0.69_NM
WIDTH x HGHT.	14'–6" x 4'–6"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/Green

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

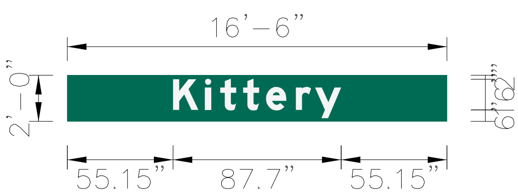
LENGTH SERIES/SIZE

K	i	t	t	e	r	y										
43.2	59.8	67.8	79.6	91.6	107.2	117.2									87.7	EM 2000 16/12

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

SIGN NUMBER	OL–6 I–95 MM 0.69_NR	
WIDTH x HGHT.	16'–6" x 2'–0"	
BORDER WIDTH	0"	
CORNER RADIUS	0"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/Green

SYMBOL	X	Y	WID	HT

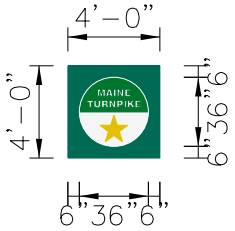
LETTER POSITIONS (X)

K	i	t	t	e	r	y									LENGTH	SERIES/SIZE
																EM 2000
55.2	71.8	79.8	91.6	103.6	119.2	129.2									87.7	16/12

SIGN DETAIL

1:40

1:100



Maine Turnpike Authority

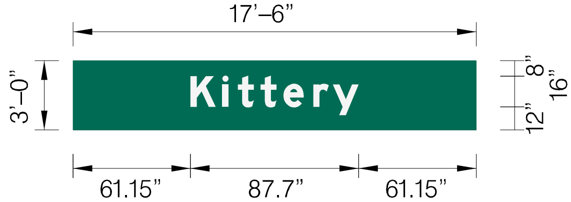
SIGN NUMBER	OL–7 I–95 MM 1.01_NL
WIDTH x HGHT.	4'–0" x 4'–0"
BORDER WIDTH	0"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: Green

SYMBOL		X	Y	WID	HT
M1–1(MT)	0	6	6	36	36

LETTER POSITIONS (X) LENGTH SERIES/SIZE

SIGN DETAIL

1:40



Maine Turnpike Authority

SIGN NUMBER	OL–8 I–95 MM 1.01_NR	
WIDTH x HGHT.	17'–6" x 3'–0"	
BORDER WIDTH	0"	
CORNER RADIUS	0"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/Green

SYMBOL	X	Y	WID	HT

LETTER POSITIONS (X)

															LENGTH	SERIES/SIZE
K	i	t	t	e	r	y										EM 2000
61.2	77.8	85.8	97.6	109.6	125.2	135.2									87.7	16/12

APPENDIX B

CONSTRUCTION INSPECTION CHECKLIST

Inspection Checklist for Construction Sites to satisfy requirements of Chapter 500 Stormwater Management Rules, Maine Construction General Permit (CGP) and Municipal Separate Storm Sewer System (MS4) Permit as they apply to Maine Turnpike Authority

Project Name: _____

Project Location: _____

Name of OSRP*: _____

"OSRP" means on-site responsible party that is knowledgable of erosion prevention and sedimentation control practices and has been certified by the DEP's NonPoint Source (NPS) Training Center or a similar training program.

DAILY INSPECTION LOG FOR THE WEEK OF: _____

DAY	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
DATE						
INITIALS						

Complete this column only if weekend work is conducted

A. GENERAL SECTION

(1) Amount of On-site Precipitation

SOURCE OF INFORMATION (circle one)

on-site weather station

website: _____

rain gauge

IMPORTANT: If there was rain, were the following areas inspected before and after the storm event...

...disturbed and impervious areas?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...erosion control measures?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...material storage areas exposed to precipitation?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...locations where vehicles enter and exit the site?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
...all deficiencies and corrective actions are noted below?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N

(2) Air Temperature

SOURCE OF INFORMATION (circle one)

on-site weather station

website: _____

thermometer

B. EROSION CONTROL MEASURES

(1) Are erosion prevention and sedimentation controls....

in place prior to land disturbance?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
in place prior to embankment/excavation operations?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
working effectively?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, please describe failure and corrective actions in comments section below	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__

(2) Is silt fence properly installed downhill of disturbed slopes?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, please describe failure and corrective actions in comments section below	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__

(3) All newly disturbed earth is stabilized by applying mulch daily?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If yes, is mulch maintained on-site on a daily basis?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, what other daily method of stabilization is being used?						

(4) All disturbed ditches are stabilized by the end of the workday?	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA
If yes, what type of stabilization is being used and maintained on-site daily?						

(5) Permanent slope stabilization measures are applied...						
within one week of last soil disturbance?	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA	Y or N or NA
If yes, identify area and date of last disturbance?	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__

(6) Is the project site currently under an approved period of suspended work?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If yes, then has the daily inspection log been maintained current and up-to-date?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N

C. HOUSEKEEPING

(1) Are inspections conducted on a weekly basis to ensure that sedimentation and potential pollutants are minimized from...

materials storage areas exposed to precipitation?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
locations where vehicle enter and exit the site?	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N
If no, explain reason in comments section below	Note #__	Note #__	Note #__	Note #__	Note #__	Note #__

(3) Are inspections conducted daily to ensure that discharges do not impact receiving waters?

	Y or N	Y or N	Y or N	Y or N	Y or N	Y or N

COMMENTS:

NOTE #1.... _____

NOTE #2.... _____

NOTE #3.... _____

NOTE #4.... _____

APPENDIX C

MS4 STORMWATER AWARENESS PLAN

Maine Turnpike Authority
MS4 Stormwater Awareness Plan

Developing and implementing a Best Management Plan (BMP) Adoption Plan is a requirement of the Maine Department of Environmental Protection's (DEP's) *General Permit for the Discharge of Stormwater from Maine Department of Transportation (MaineDOT) and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems* (MS4s). Since MTA is subject to this MS4 permit and its six *Minimum Control Measures* (MCMs), *Part IV(H)(1)(a)(ii)* requires MTA to conduct Public Education and Outreach (MCM #1) efforts that **encourage** ***"employees and contractors to utilize BMPs that minimize stormwater pollution."***

1.0 PERMIT LANGUAGE

Part IV(H)(1) of the MS4 Permit establishes three goals for *MCM #1 - Public Education and Outreach on Stormwater Impacts*. These include the following:

1. *To raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems for Maine's waters;*
2. *To motivate staff and contractors to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and*
3. *To reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs.*

In addition to continuing outreach efforts from the previous MS4 Permit (e.g., 5-year cycle)[1], MTA must satisfy these three goals by encouraging employees and contractors to use BMPs that minimize stormwater pollution as part of this Targeted BMP Adoption Plan. The progress and effectiveness of the Plan and associated efforts must then be evaluated and included in each annual report submitted to Maine DEP in accordance with *Part IV(J)* of the MS4 Permit. As part of this evaluation, MTA must include an assessment of process indicators and impact indicators to evaluate efforts in meeting these goals. In the fifth annual report, the BMP Adoption Plan shall be reviewed fully and include analysis of the process and impact indicators.

Process indicators are related to the execution of the program, such as (1) percent or number of employees who attend a training session; or (2) completion of a particular action item (e.g., distributing posters to employee work place and/or contractor job site).

Impact indicators are related to the achievement of the goals and objectives of the program, such as (1) observable/measurable effects on behavior; or (2) percent or number of employees to describe sources of storm water pollution, proper spill response, or maintenance of a BMP.

[1] Public education and outreach efforts continued from the previous MS4 permit cycle include (but are not limited to) conducting annual stormwater pollution prevention/spill prevention control and countermeasures (SPCC) training to MTA maintenance and engineering employees, as well as other Measurable Goals that can be found in MTA's Stormwater Program Management Plan (SPMP) dated December 2013.

2.0 Coverage Area

This plan has been developed for implementation by MTA to meet MS4 Permit requirements for Urbanized Areas (UAs) within MTA's right-of-way (ROW).

3.0 Objective

The objective of this Stormwater Awareness Plan is to raise awareness among MTA employees and contractors regarding stormwater issues. For example, stormwater runoff is one of the most significant sources of water quality problems for Maine's waters.

The goal of the Stormwater Awareness Plan is to provide information relative to stormwater impacts in an effort to raise awareness of MTA employees. For example, 100% of Highway Maintenance employees and Engineering Inspectors will attend training sessions at which stormwater issues and impacts will be addressed. Additionally, MTA will also work to raise awareness among MTA employees in other departments, such as Fare Collections by providing abbreviated Stormwater/Spill Prevention and Response training to supervisors and managers who will in turn inform additional employees regarding stormwater issues relative to MTA operations.

The goal of this Plan is to also raise awareness of contractors by providing this Plan, as well as the Targeted BMP Adoption Plan (which is designed to motivate employees and contractors to use BMPs to reduce polluted stormwater runoff), prior to starting work on MTA projects.

4.0 Message

The message MTA will strive to impart on employees and contractors will relate to the potential impacts their activities may have on stormwater runoff and water quality in Maine. The message statement is:

> *"The effect stormwater runoff has on the water quality of Maine waters is impacted by the level of effort put into the construction, operation, and maintenance of MTA's stormwater infrastructure. Polluted water entering the storm drain system and discharged untreated directly to waterbodies is used for drinking, fishing, and swimming, which impacts everyone in Maine."*

In addition to the Stormwater Awareness Plan message, the target audience will be informed of authorized non-stormwater discharges allowed by the permit provided they do not contribute to a violation of water quality standards, as determined by the DEP. These include the following:

- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
- Uncontaminated pumped ground water
- Uncontaminated flows from foundation drains
- Air conditioning and compressor condensate
- Irrigation water
- Flows from uncontaminated springs
- Uncontaminated water from crawl space pumps
- Uncontaminated flows from footing drains

- Lawn watering runoff
- Flows from riparian habitats and wetlands
- Residual street wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used)
- Hydrant flushing and fire fighting activity runoff
- Water line flushing and discharges from potable water sources

4.1 Outreach Tool(s) AND DISTRIBUTION

This Stormwater Awareness Plan and message will be provided to each MTA employee at annual training sessions and also to each contractor before commencement of work, in addition to the Targeted BMP Adoption Plan.

MTA has established or will rely on a number of outreach tools including the following:

- Existing stormwater training programs
  - For MTA employees, the internal training program will be evaluated annually (and updated, as needed) to include storm water topics in order to assess process and impact indicators; and
  - For contractors, MTA continues to require an On-Site Responsible Party (OSRP) certified by DEP's NPS Training Program to be knowledgeable of stormwater, specifically erosion prevention, sedimentation control and other potential impacts to water quality in Maine.
- Stormwater information packages to raise awareness and encourage utilization of targeted BMPs
  - For MTA employees, information will be provided during annual and supplemental training sessions. Informational packages may also be provided via MTA's newsletters and memos posted to employee bulletin boards, as well as through employee meetings, including quarterly Environmental Health & Safety Committee meetings.
  - For contractors, MTA will continue to include contractual requirements provided in the standard contract language that establishes the anticipated expectations for performance and payment. Stormwater information will be discussed or provided to contractors prior to starting work (e.g., at Pre-Construction meetings).

4.2 Timeline and Implementation Schedule

The timeline and implementation schedule is determined by:

- The training schedule established each year for MTA employees; and
- The solicitation and project award notices each year.

MTA has established a representative training schedule for each year and is similar to the table below:

Date	**Training Type**
April	Erosion and Sediment Control (ESC) and Stormwater Pollution Prevention for highway maintenance Supervisors and Foremen
May - June	Spill Prevention Control and Countermeasures Plan (SPCC), Stormwater and Erosion and Sediment Control (ESC) for MTA maintenance and engineering employees.

October	Spill Prevention Control and Countermeasures Plan (SPCC) and Stormwater for Fare Collections

The training sessions are designed to meet the goal of increasing awareness, as well as encouraging utilization of targeted BMPs to reduce stormwater runoff and potential impacts. In addition to these training sessions, there may be supplemental training sessions as needed and/or new information posters about stormwater BMPs posted at MTA facilities. Newsletters including stormwater information may also be sent each year to employees.

For contractors, MTA's requirement to have an OSRP certified by DEP's NPS Program ensures that the contractor is aware of stormwater related issues. In addition, MTA distributes this Stormwater Awareness Plan to contractors.

4.3 Responsible Party

The primary responsible party at MTA is the Environmental Services Coordinator, John Branscom. The Environmental Services Coordinator may also rely on the following:

- MTA Supervisors, Foremen, Inspectors and/or other personnel to inform MTA employees and contractors of the targeted BMPs to be utilized;
- An environmental consulting firm, such as GZA GeoEnvironmental, Inc, to ensure MTA's employees are trained as defined by the Plan; and
- A design engineering firm, such as HNTB, who administer construction contracts, to ensure the Plan is properly implemented by the contractors.

4.4 Evaluation Protocol

MTA training is documented with attendance sign-in sheets, exam scores, in-class workshops and evaluation forms. A training database is maintained with information gathered from employees during each training session.

Process Indicators: Assessment of the program execution will be included in the annual report. The following topics will be reported for MTA employees:

1. Number of employees that attended training; and
2. Average exam scores for attendees.

Impact Indicators: Gauging the achievement of goals and objectives of the program will be included in the annual report. These will be addressed by the following behavioral change questions:

1. Number or percentage of employees to identify the goals of MCM #1 correctly;
2. Number or percentage of employees to identify source(s) of storm water pollution;
3. Number or percentage of employees to identify and differentiate between structural and non-structural BMPs; and
4. Number or percentage of employees to demonstrate an applied knowledge of BMP-specific information.

Process and impact indicators for contractors will be tracked by documenting the pre-construction meetings when this Plan and the Targeted BMP Adoption Plan are provided to each

contractor and the contractor, in turn, provides MTA with the certification for their OSRP for the project.

4.5 Plan Modification

This Stormwater Awareness Plan may require modification if evaluation data shows that efforts are not effective. Should modifications be needed, the plan will be revised or a new plan will be developed.

I have read and accept the policies outlined in this Stormwater Awareness Plan as required by MTA's MS4 Permit.

_____ _____

Contractor Signature of Acknowledgement Date

_____ _____

Printed Name Project Number

APPENDIX D

MS4 TARGETED BMP ADOPTION PLAN

Maine Turnpike Authority
MS4 Targeted BMP Adoption Plan

Developing and implementing a Best Management Plan (BMP) Adoption Plan is a requirement of the Maine Department of Environmental Protection's (DEP's) *General Permit for the Discharge of Stormwater from Maine Department of Transportation (MaineDOT) and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems* (MS4s). Since MTA is subject to this MS4 permit and its six *Minimum Control Measures* (MCMs), *Part IV(H)(1)(a)(ii)* requires MTA to conduct Public Education and Outreach (MCM #1) efforts that **encourage** ***"employees and contractors to utilize BMPs that minimize stormwater pollution."***

5.0 PERMIT LANGUAGE

Part IV(H)(1) of the MS4 Permit establishes three goals for *MCM #1 - Public Education and Outreach on Stormwater Impacts*. These include the following:

1. *To raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems for Maine's waters;*
2. *To motivate staff and contractors to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and*
3. *To reduce polluted stormwater runoff as a result of increased awareness and utilization of BMPs.*

In addition to continuing outreach efforts from the previous MS4 Permit (e.g., 5-year cycle)[2], MTA must satisfy these three goals by encouraging employees and contractors to use BMPs that minimize stormwater pollution as part of this Targeted BMP Adoption Plan. The progress and effectiveness of the Plan and associated efforts must then be evaluated and included in each annual report submitted to Maine DEP in accordance with *Part IV(J)* of the MS4 Permit. As part of this evaluation, MTA must include an assessment of process indicators and impact indicators to evaluate efforts in meeting these goals. In the fifth annual report, the BMP Adoption Plan shall be reviewed fully and include analysis of the process and impact indicators.

Process indicators are related to the execution of the program, such as (1) percent or number of employees who attend a training session; or (2) completion of a particular action item (e.g., distributing posters to employee work place and/or contractor job site).

Impact indicators are related to the achievement of the goals and objectives of the program, such as (1) observable/measurable effects on behavior; or (2) percent or number of employees to describe sources of storm water pollution, proper spill response, or maintenance of a BMP.

[2] Public education and outreach efforts continued from the previous MS4 permit cycle include (but are not limited to) conducting annual stormwater pollution prevention/spill prevention control and countermeasures (SPCC) training to MTA maintenance and engineering employees, as well as other Measurable Goals that can be found in MTA's Stormwater Program Management Plan (SPMP) dated December 2013.

6.0 Coverage Area

This plan has been developed for implementation by MTA to meet MS4 Permit requirements for Urbanized Areas (UAs) within MTA's right-of-way (ROW).

7.0 Objective

The objective of this Targeted BMP Adoption Plan is to educate MTA's employees and contractors to use BMPs which reduce polluted stormwater runoff within UA.

The goal of the BMP Adoption Plan is to target BMPs in the MaineDOT BMP Manual to be utilized by employees and contractors that minimize stormwater pollution during construction activities, such as:

(1) Installing silt fence prior to land disturbance; and

(2) Ensuring that hay mulch is applied to soil at the end of each work day.

For MTA employees, focus will also be given to targeting BMPs relevant to transportation-related maintenance and good housekeeping activities, such as:

(1) Regular sweeping of the mainline and peripheral facilities;

(2) Annual catch basin clean-outs and sediment removal;

(3) As needed ditch cleaning and repair;

(4) On-going culvert maintenance and litter removal.

Contractors are also encouraged to utilize BMPs in accordance with standard construction contract language (e.g., Special Provision 656), as well as the MaineDOT BMP Manual.

8.0 Message

The message MTA will strive to impart on employees and contractors will relate to the impacts their activities have on stormwater runoff and the importance of BMPs. The message statement is:

> *"Implementing appropriate BMPs, as described in MaineDOT's Stormwater BMPs Manual, to all MTA related activities will help to minimize stormwater pollutants introduced to Maine's waterbodies."*

8.1 Outreach Tool(s) and DIstribution

Targeted BMPs are included in the MaineDOT BMP Manual that is available at each MTA maintenance facility and referenced in standard contract language for contractors.

MTA has established or will rely on a number of outreach tools including the following:

- Existing stormwater training programs
    - For MTA employees, the internal training program will be evaluated annually (and updated, as needed) to include storm water topics in order to assess process and impact indicators; and
    - For contractors, MTA continues to require an On-Site Responsible Party (OSRP) certified by DEP's NPS Training Program to be knowledgeable in erosion prevention and sedimentation control.

- Existing standard contract language
    - Requires contractors to maintain a certified OSRP on-site who has authority to implement BMPs appropriately; and
    - Specifies that contractors must utilize MaineDOT's BMP Manual, as well as other BMPs, to ensure construction site runoff is minimized.
- Stormwater information packages to raise awareness and encourage utilization of targeted BMPs
    - For MTA employees, information will be provided during annual and supplemental training sessions. Informational packages may also be provided via MTA's newsletters and memos posted to employee bulletin boards, as well as through employee meetings, including quarterly Environmental Health & Safety Committee meetings.
    - For contractors, MTA will continue to include contractual requirements provided in the standard contract language that establishes the anticipated expectations for performance and payment. This Target BMP Adoption Plan will also be provided to contractors prior to starting work (e.g., at Pre-Construction meetings).

8.2 Timeline and Implementation Schedule

The timeline and implementation schedule is determined by:

- The training schedule established each year for MTA employees; and
- The solicitation and project award notices each year.

MTA has established a representative training schedule for each year and is similar to the table below.

Date	**Training Type**
April	Erosion and Sediment Control (ESC) and Stormwater Pollution Prevention for Highway Maintenance Supervisors and Foremen
May - June	Spill Prevention Control and Countermeasures Plan (SPCC), Stormwater and Erosion and Sediment Control (ESC) for MTA maintenance and engineering employees.

In addition to the training sessions above, there may be supplemental training sessions as needed and/or new information posters about stormwater BMPs posted at MTA facilities. Newsletters including stormwater information may also be sent each year to employees.

For contractors, targeted BMPs are already being implemented in accordance with contract language and the MaineDOT BMP Manual. In addition, MTA distributes this Targeted BMP Adoption Plan to contractors.

8.3 Responsible Party

The primary responsible party at MTA is the Environmental Services Coordinator, John Branscom. The Environmental Services Coordinator may also rely on the following:

- MTA Supervisors, Foremen, Inspectors and/or other personnel to inform MTA employees and contractors of the targeted BMPs to be utilized;

- An environmental consulting firm, such as GZA GeoEnvironmental, Inc, to ensure MTA's employees are trained as defined by the Plan; and
- A design engineering firm, such as HNTB, who administer construction contracts, to ensure the Plan is properly implemented by the contractors.

9.0 Evaluation Protocol

MTA training is documented with attendance sign-in sheets, exam scores, in-class workshops and evaluation forms. A training database is maintained with information gathered from employees during each training session.

Process Indicators: Assessment of the program execution will be included in the annual report. The following topics will be reported for MTA employees:

3. Number of employees that attended training; and
4. Average exam scores for attendees.

Impact Indicators: Gauging the achievement of goals and objectives of the program will be included in the annual report. These will be addressed by the following behavioral change questions:

5. Number or percentage of employees to identify the goals of MCM #1 correctly;
6. Number or percentage of employees to identify source(s) of storm water pollution;
7. Number or percentage of employees to identify and differentiate between structural and non-structural BMPs; and
8. Number or percentage of employees to demonstrate an applied knowledge of BMP-specific information.

Process and impact indicators for contractors will be tracked and evaluated based on daily and/or weekly inspections conducted on-site.

10.0 Plan Modification

This Targeted BMP Adoption Plan may require modification if evaluation data shows that efforts are not effective. Should modifications be needed, the plan will be revised or a new plan will be developed.

I have read and accept the policies outlined in this Stormwater Awareness Plan as required by MTA's MS4 Permit.

_____ _____

Contractor Signature of Acknowledgement Date

_____ _____

Printed Name Project Number