MAINE TURNPIKE AUTHORITY

ADDENDUM NO. 1

CONTRACT 2015.06

INTERCHANGE 36 SACO TOLL PLAZA LANE ADDITION (MM 36.0) & VARIABLE MESSAGE SIGN RELOCATION (MM 28.3)

Make the following changes to the bid documents:

In the Contract Plans, **REMOVE** sheets 2 and 24 and **REPLACE** with the attached revised Sheets 2 and 24.

In the Contract Documents, Part 2-Special Provisions, Section 202 <u>REMOVING STRUCTURES</u> <u>AND OBSTRUCTIONS</u> (Removing Existing Structural Concrete), on Page SP-22 completely **REPLACE** the first paragraph in subsection <u>202.01 Description</u> that begins "This work shall include…" with the following:

This work shall include removal and disposal of the existing VMS support structure foundation to 6" below grade located in the median and to 6" below the cellular confinement system at the VMS foundation located in the embankment side slope at the Saco (MM 36.0) site.

In the Contract Documents, Part 2-Special Provisions, Section 626 <u>FOUNDATIONS</u>, <u>CONDUIT AND JUNCTION BOXES FOR HIGHWAY SIGNING</u>, <u>LIGHTING AND SIGNALS</u> (30-Inch Diameter, Greater Than 8-ft Long, and All 36-Inch and 42-Inch Diameter <u>Foundations</u>), on Page SP-139 completely **REPLACE** the first paragraph in subsection <u>626.034A Shaft Construction Tolerances</u> that begins "Shafts shall be constructed so that..." with the following:

Shafts shall be constructed so that the center at the top of the shaft is within a horizontal tolerance equal to 3-inches. The anchor assembly shall be constructed such that the center of the anchor rod assembly is within a horizontal tolerance equal to 1-inch. Larger diameter shafts and rebar cages will be allowed by Contractor substitution with no additional compensation.

Note: the above items shall be considered as part of the bid submittal.

A Pre-Bid Conference was held on March 9, 2015 at 9:00AM at the Maine Turnpike Authority for this project. The attached agenda and sign-in sheets are included.

The total number of pages included with this addendum is nine (9) and two (2) revised Contract Plan sheets.

All bidders are requested to acknowledge the receipt of the Addendum No. 1 by signing below and faxing this sheet to Nate Carll, Purchasing Department, (207) 871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 1 on Page P-14 of the bid package.

Business Name	
Print Name and Title	
Signature	
Date	
March 9, 2015	
	Very truly yours, MAINE TURNPIKE AUTHORITY
	Nathanial F. Carll Purchasing Manager Maine Turnpike Authority

MAINE TURNPIKE AUTHORITY

Pre-Bid Conference

CONTRACT 2015.06

Toll Plaza Lane Addition and VMS Relocation

<u>SACO TOLL PLAZA LANE ADDITION (INTERCHANGE 36 SACO TOLL PLAZA)</u>
<u>& VARIABLE MESSAGE SIGN (VMS) RELOCATION TO MAINLINE IN ARUNDEL</u>
(MM 28.3)

March 9, 2015 9:00 AM

1) Location:

The general limits of work are at Mile 28.3 (Station 1360+00) in Arundel and at Mile 36.0 (Exit 36 Interchange at Saco Toll Plaza on I-195) in Saco.

2) General Description:

The work consists of the addition of a dedicated lane to the right side of the existing on ramp toll plaza beginning 600 feet west of the Saco Exit 36 Toll Plaza on I-195 and extending easterly 1160 feet to approximately 400 feet east of the Saco Exit 36 Toll Plaza. The widening will include widening existing road embankment with geofoam and granular material, replacement/relocation of existing guardrail, constructing a separating island, provisions for toll equipment including an overhead gantry and maintenance of traffic. In addition, the project includes relocating an existing overhead Variable Message Sign (VMS) and its supporting structure, controls and controller cabinet at Interchange 36 in the Saco side plaza to a location on the southbound mainline near Limerick Road in Arundel (MM 28.3); constructing two new VMS drilled shaft foundations; constructing a new controller cabinet foundation, adding new guardrail; widening the embankment and extending a drainage pipe for the new guardrail; modifying the median guardrail; providing electrical service; and all other work incidental thereto in accordance with the Plans and Specifications.

Coordination with the toll system integrator for toll equipment installation will be required. There will be potential overlap with the toll plaza toll equipment upgrade project that follows this contract. Utility coordination is necessary for the relocation of the VMS sign structure and its controls at the Arundel mainline site.

3) Bid:

- a) March 17, 2015 at 11:00 A.M. at MTA Headquarters 2360 Congress Street, Portland.
- b) All bid and contractual questions shall be directed to Purchasing Department, Phone No. (207) 871-7771, Ext. 115.

c) All questions on plans and specifications shall be in writing and shall be directed (faxed) to Purchasing Department, of the Maine Turnpike Authority. Fax No. (207) 871-7739 or ncarll@maineturnpike.com.

4) Notification:

a) Contractor shall notify and obtain approval from the Authority prior to visiting the Project site for field inspection. The contact person is Mr. Steve Tartre at (207) 871-7771, ext. 144.

5) Maine Department of Labor – Fair Hourly Wages (Special Provision 104.3.8)

- a) Heavy and Bridge wages
- b) Highway and Earthwork wages

6) General Requirements

- a) U-Turns at toll plazas and median openings not allowed, subject to fines. (General Provision 105.5.1)
- b) Contractor access to and from the mainline shall not negatively impact mainline traffic flow. The Contractor may be required to establish lane closures to provide for safe access. Refer to Special Provision 652, Specific Project Maintenance of Traffic Requirements, for lane closure requirements and restrictions.
- c) All vehicles used on the Project, including concrete delivery trucks, shall be equipped with amber flashing beacons in accordance with the General Provision 652.61.
- d) Class III safety vests must be worn at all times in accordance with Special Provision 652.2.5

7) Permit Requirements (Special Provision 105.8.2)

- a) The Project is being constructed under the Maine DEP Natural Resources Protection Act Permit by Rule (PBR) for activities adjacent to protected natural resources. A copy of the PBR regulations and permit are in Appendix C.
- b) The Project permitting also requires that Contractor shall not clear, disturb or otherwise impact other wetlands at the site during construction, including those located near approximate Station 118+00 to 119+00, and near Station 124+00 left, as shown on the project plans.
- c) The Project is subject to the requirements of the Maine Pollutant Discharge Elimination System (MPDES) General Permit for Stormwater Discharge from Construction Activity
- d) A Notice of Intent (NOI), accompanied by a preliminary Limit of Disturbance (LOD) of 2.59 acres have been filed by MTA with Maine DEP. Contractor shall prepare and file a **final** LOD.

- e) Compliance with the Maine Pollutant Discharge and Elimination System (MPDES) General Permit for the Discharge of Stormwater from MTA's Municipal Separate Storm Sewer Systems (MS4) requirements outlined in this Contract is required by the Contractor.
- f) Compliance with the erosion and sedimentation control requirements outlined in this Contract is required by the Contractor.
- g) MaineDOT Best Management Practices (latest issue), subject to fines in accordance with General Provision 105.8.1.

8) Construction Schedule/Prosecution of Work:

- a) April 6, 2015—Contract start
- b) August 28, 2015 Substantial Completion
- c) October 30, 2015—Contract Completion date
- d) Substantial completion defined as additional toll lane open to traffic with final striping complete, guardrail installed, tolling equipment operational and signage completed at Saco Toll Plaza shall be complete by.
- e) Liquidated damages on a calendar day basis in accordance with Subsection 107.7.2 shall be assessed for each calendar day that project completion is not achieved. In addition, liquidated damages of Two Thousand Five Hundred (\$2,500) Dollars per calendar day shall be assessed for each calendar day that the Saco Exit 36 Toll plaza substantial completion is not achieved.
- f) Supplemental liquated damages for:
 - i) VMS sign and structure relocated to the Arundel site and in service with traffic fully operational with all guardrail in place by July 1, 2015. Subject to One Thousand (\$1,000) Dollars per calendar day.
 - ii) Longer term median lane closure with temporary concrete barrier for median VMS sign structure foundation, median guardrail installation, and minor median grading work shall not exceed seven (7) consecutive calendar days. Subject to One Thousand (\$1,000) Dollars per calendar day.
 - iii) The oversize load restrictions at the Saco Toll Plaza, that occur during Phase 2 of the construction, shall not exceed fourteen (14) consecutive calendar days. Subject to Five Thousand (\$5,000) Dollars per calendar day.

9) <u>VMS Relocation Traffic Control (Special Provision Section 652):</u>

a) Two lane traffic shall be maintained on Limerick Road in Arundel at all times, as the Contractor's primary access to the VMS relocation site will be via the Maine Turnpike service access road from the mainline near MM28.3.

On the mainline Maine Turnpike in Arundel (MM 28.3), the following shall be allowed:

- b) Short-term single shoulder or lane closures at any time with approval of the Resident.
- c) A longer term median lane closure with temporary concrete barrier for a maximum of seven (7) consecutive calendar days for the median foundation and guardrail construction. This closure is subject to Supplemental Liquidated Damages contained in Section 107.4.6. This lane closure shall not be permitted during the Memorial Day Weekend holiday period.
- d) Double lane closures shall only be allowed on Monday to Thursday between 8:00 p.m. and 6:00 a.m. and on Fridays between 10:00 p.m. and 6:00 a.m.
- e) Complete closure of traffic is permissible for certain operations that endanger the public safety. They are allowed between the hours of 10:00 p.m. and 5:00 a.m.

On I-195 in Saco (MM 36.0), the following shall be allowed:

- f) Short-term single lane closures in the immediate area of the existing VMS at any time except between the hours of 5:00 a.m. and 9:00 a.m. daily. Lane closures at the toll plaza including the outside wide load lane shall not be permitted at any time.
- g) As indicated later in these specifications, complete closure of traffic is permissible for certain operations that endanger the public safety. They are allowed between the hours of 10:00 p.m. and 5:00 a.m.

10) Saco MM 36.0 (Lane Addition) Traffic Control (Special Provision Section 652):

On I-195 in Saco (MM 36.0), the following shall be allowed:

- a) Phase 1 provides a long-term right shoulder closure with 11' minimum travel lanes and adjacent temporary concrete barrier. Short-term single lane closures in the immediate area of the existing VMS at any time except between the hours of 5:00 a.m. and 9:00 a.m. daily. Refer to Temporary Toll Plaza Lane Closure for requirements with closing lanes at the toll plaza.
- b) Phase 2 continues to provide a long-term right shoulder closure with restricted Wide Loads. This Wide Load restriction shall have a maximum of seven (7) days. Contractor shall coordinate with Resident and provide a written request one (1) week in advance to the Resident.
- c) At the completion of Phase 2, contractor shall reset temporary concrete barrier behind proposed island if guardrail protecting the embankment has not been installed. Temporary barrier placed behind the island shall tie into existing barrier with 8:1 taper rates.

11) **Toll Plaza** Traffic Control (Special Provision Section 652):

a) Plaza lanes shall remain available for opening at all times except when the Contractor is performing work in, adjacent to or directly over the plaza lanes.

- b) Temporary plaza lane closures will only be allowed at the following times for work occurring in the toll plaza lanes or over them:
 - i) Single toll plaza lane may be closed from 9 AM to 3PM and from 7 PM to 5 AM
 - ii) Two toll plaza lanes may be closed from 10 PM to 4 AM
- c) Plaza lane closures not completely removed by the ending time specified will be subject to a lane rental fee of \$100.00 per 10 minutes for every 10 minute increment beyond the specified ending time.

12) Specific Contract Items

- a) Section 107.8.1 Fabrication Time
 - i) 14 days budgeted for continuous, full-time fabrication inspection of structural steel (toll gantry).
- b) Section 202 Concrete Removal
 - i) Special Provision 202 will be amended to only require removal of the existing VMS side slope foundation to 6" below the bottom of the proposed riprap to be consistent with Plan Sheet 24, Note 5.
- c) Section 203 Geofoam lightweight fill
 - i) The approved EPS block supplier shall submit complete shop drawings for the installation.
 - ii) Review of the shop drawings or revised shop drawings will be completed within 10 working days of receipt.
 - iii) EPS blocks shall not be shipped to the site prior to notification that the shop drawings have been approved for construction.
 - iv) Special details on Plan Sheet 16 for the interface between the geofoam and the gantry and sign post foundations.
 - v) May require long lead time on procurement.
- d) Section 403 Hot Mix Asphalt Pavements
 - i) Full Width I-195 Westbound (Station 109+00 +/- to Station 111+50 +/-, left). Pay Items 202.203-Pavement Butt Joint and 403.21-Hot Mix Asphalt, 9.5 mm will be used in this area to address an existing drainage issue.
 - ii) Plan note on Sheet 2 will be revised via bid addendum to be consistent with limits of work shown in the table on Special Provision page SP-53.
- e) Section 503 GFRP reinforcing in roadway concrete slab
- f) Section 504 Structural Steel
 - i) AISC Cbr or Sbr shop certification required for gantry fabrication
- g) Section 518 Concrete Repair
 - i) Concrete removal and repair limits in the existing toll plaza concrete island under the proposed gantry foundation subject to Resident approval.
- h) Section 526 Temporary Concrete Barrier Type I Supplied by Authority
 - i) The concrete barrier sections are stored at the Crosby Maintenance Yard at MM 46 SB and shall be returned there.
- i) Section 620
 - i) SP added for adding cellular confinement system on side slopes steeper than 2H:1V.
- i) Section 626

- i) SP added for concrete drilled shaft foundations for the VMS support structure at the Arundel site.
- ii) Several submittals required including Construction Experience and Installation Narrative.
- iii) Bottom of excavation inspected and approved by Resident with Geotechnical Engineer consultation.
- iv) SP Section 626.034A will be amended via bid addendum to address a question from a bidder regarding horizontal placement tolerance.
- v) Permanent slip casing required at top of shaft to at least 2 feet below grade, wet-set into shaft concrete.
- vi) Warranty against lean and corrosion for 2 year period.
- k) Section 645 Highway Signing
 - i) SP added for the removal, disassembly, and relocation of the VMS and Supporting Structure
 - ii) Removal will be necessary prior to embankment construction in that area.
 - iii) Nighttime work required for work over traffic in accordance with Section 652.
 - iv) Existing support structure corrosion and any damage to the galvanizing caused by the Contractor's operations shall be repaired.

13) Questions:

MAINE TURNPIKE AUTHORITY

Pre-Bid Conference

CONTRACT 2015.06

Toll Plaza Lane Addition and VMS Relocation

& VARIABLE MESSAGE SIGN (VMS) RELOCATION TO MAINLINE IN ARUNDEL SACO TOLL PLAZA LANE ADDITION (INTERCHANGE 36 SACO TOLL PLAZA) (MM 28.3)

March 9, 2015 9:00 AM

EMAIL	tim. merritt @ stautec. com	ACell & Main Bluengike Com	ebarnes @ Maine turn wike - con	Ksuzae najmen and suppor.	ANDI/VED CHM CONSTRUCTORS, CON	artopattandsons.net	tesse alistendadistilla	MREINSBORONGH (O SHAW BROTHERS, ran	SWADAMS CPM CONSTRUCTURES.	12 tsmitht@gmail.com	Madelibbo OR O consilican	Swarehol @ maneturgite .com	FACTUOOD ACTINE LEW PIKE-1044
PHONE	887-3466	482-8115	462-6374	737 4471	865-000	345.3311	256-999	5250 H9	865-0000	341-7661	415-3425	831-5817	4182-8348
COMPANY	6TANTEC	MTA	MTA	wymen had Singson	CPM	PRATT & SOWS, INC.	(g. 1. 22 - n	SHAW BROTHERS	CFM	SCOTT CONSTRUCTION	tt	MTA	MTA
NAME (PRINT)	TIM MERRITT	Mate Call	Eric Barnes	Ki-5-142	ANDY KITTREDGE	ART 13 URGESS	Toss Gr. Fresh	MARK REINSBOROUGH	JANG- ADAMS	THABY SMITH	Wagn Libbr	Set wach	Palph Nowood

ITEM NO.	DESCRIPTION	UNIT	VMS QUANTITY	SACO MEDIAN QUANTITY	TOLL PLAZA QUANTITY	TOTAL QUANTITY	IT
202.1271	REMOVING EXISTING BITUMINOUS PAVEMENT	CY			200	200	62
202.203	PAVEMENT BUTT JOINTS	SY			350	350	62
203.20	COMMON EXCAVATION	CY	5		4900	4905	62
203.24 203.25	COMMON BORROW GRANULAR BORROW	CY	90		15	90 15	62
203.23	GEOFOAM LIGHTWEIGHT FILL	CY			2550	2550	62
203.45	LEVELING SAND	CY			500	500	62
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	CY			30	30	62
304.09	AGGREGATE BASE COURSE - CRUSHED	CY			450	450	62
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY			1800	1800	62
403.207	HOT MIX ASPHALT, 19.0 mm NOMINAL MAXIMUM SIZE	T			450	450	63
403.208	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE, SURFACE	Т			300	300	63 63
403.209	HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE (ISLAND & INCIDENTALS)	T			70	70	63 63
403.21	HOT MIX ASPHALT, 9.5 mm	T			100	100	63
403.213	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE, BASE	T			400	400	63
409.15	BITUMINOUS TACK COAT, APPLIED	G			200	200	63
419.30	SAWING BITUMINOUS PAVEMENT STRUCTURAL CONCRETE FOOTING	LF CY			1300	1300	63 63
502.111 502.266	STRUCTURAL CONCRETE PLAZA SLAB ON GRADE	CY			10 25	10 25	63
502.56	CONCRETE FILL	CY			10	10	63
	EPOXY - COATED REINFORCING STEEL, FABRICATED AND						63
503.14	DELIVERED	LB			1350	1350	64
503.15	EPOXY - COATED REINFORCING STEEL, PLACING	LB			1350	1350	64
503.18	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, FABRICATED AND DELIVERED	LB			1810	1810	64 64
503.19	GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS, PLACING	LB			1810	1810	64
503.90	SYNTHETIC FIBER REINFORCEMENT	LB			175	175	64
506.30	SHOP COATING OF STRUCTURAL STEEL	LS			1	1	64
515.202 515.23	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES EPOXY OVERLAY	SY			210 12	210 12	64 65
518.51	REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL, <200 mm	SF			22	22	65 65
526.306	TEMPORARY CONCRETE BARRIER, TYPE I - SUPPLIED BY AUTHORITY (1,810 LF)	LS	0.2		0.8	1	65 65
526.311	PERMANENT CONCRETE BARRIER TYPE I	LF		70		70	65
526.342	PERMANENT CONCRETE BARRIER TYPE I TRANSITION	EA		2		2	65
527.342	WORK ZONE CRASH CUSHIONS TL-2	EA			1	1	65
602.30	FLOWABLE CONCRETE FILL	CY			15	15	65
603.152	16 INCH HDPE PIPE	LF			38	38	65 65
603.175	18 INCH REINFORCED CONCRETE PIPE - CLASS III	LF	23			23	65
604.248	CATCH BASIN TYPE F6	EA		2	1	1	65
606.1724 606.24	BRIDGE TRANSITION - TYPE III (MODIFIED) GUARDRAIL TYPE 3D - SINGLE RAIL	EA LF	325	2 325	1200	2 1850	65
606.2401	GUARDRAIL TYPE 3D - SINGLE RAIL GUARDRAIL TYPE 3D - DOUBLE RAIL	LF	323	1225	1200	1225	65
606.2652	TERMINAL END - REMOVE AND STACK	EA		3		3	65
606.278	TERMINAL END - ANCHORED END	EA	1	1		2	65
606.279	TERMINAL END - ANCHORED END, THRIE BEAM	EA	1			1	65
606.352	REFLECTORIZED BEAM GUARDRAIL DELINEATOR	EA		18		18	65
606.353	DELINEATOR POST	EA	5	1	3	9	65
606.354	DELINEATOR POST - REMOVE AND RESET	EA	2	2	2	6	65 65
606.3605	GUARDRAIL - REMOVE, MODIFY AND RESET, SINGLE RAIL	LF	60.5	112.5	1175	112.5	65
606.3631 606.48	GUARDRAIL - REMOVE AND DISPOSE SINGLE GALVANIZED STEEL POST	LF EA	62.5	375 16	1175	1612.5 16	65
606.65	GUARDRAIL THRIE BEAM - SINGLE RAIL	LF	150	16		150	65
606.701	ASYMMETRICAL THRIE BEAM TRANSITION	EA	3			3	65
606.80	GUARDRAIL 350 FLEAT TERMINAL	EA	1			1	65
609.11	VERTICAL CURB TYPE 1	LF			430	430	65
609.12	VERTICAL CURB TYPE 1 - CIRCULAR	LF			20	20	65
609.234	TERMINAL CURB TYPE 1 - 4 FT	EA			2	2	65 66
609.441	CURBING REMOVE AND STACK	LF	40	100		100	80
610.08	PLAIN RIPRAP	CY	10		10	10 10	
610.18 613.319	STONE DITCH PROTECTION EROSION CONTROL BLANKET	CY SY	600		3750	4350	
615.07	LOAM	CY	60		450	510	
618.1401	SEEDING METHOD NUMBER 2, PLAN QUANTITY	UN	10		700	10	1
618.1411	SEEDING METHOD NUMBER 3, PLAN QUANTITY	UN			34	34	
619.1201	MULCH, PLAN QUANTITY	UN	10		34	44	
619.1202	TEMPORARY MULCH	UN			34	34	/
620.58	EROSION CONTROL GEOTEXTILE	SY	20		20	40	1
	 , , , , ,	101/		I	300	. 200	/
620.625 620.70	CELLULAR CONFINEMENT SYSTEM HDPE GEOMEMBRANE	SY			2900	300 2900	1 (

ITEM NO	DESCRIPTION	UNIT	VMS QUANTITY	SACO MEDIAN QUANTITY	TOLL PLAZA QUANTITY	TOTAL QUANTIT
626.11	PRECAST CONCRETE JUNCTION BOX	EA	1			1
626.31	18 in FOUNDATION	EA			8	8
626.32	24 in FOUNDATION	EA			1	1
626.331	30-INCH DIA., GREATER THAN 8-FEET LONG, AND ALL 36-INCH AND 42-INCH DIA. FOUNDATIONS	CY	13			13
626.36	REMOVE OR MODIFY CONCRETE FOUNDATION	EA			8	8
		EA	1		0	0
626.38	GROUND MOUNTED CABINET FOUNDATION		/		4000	1000
627.73	TEMPORARY 6 INCH PAVEMENT MARKING TAPE	LF			4900	4900
627.731	TEMPORARY 6 INCH BLACK PAVEMENT MARKING TAPE	LF			2900	2900
629.05	HAND LABOR, STRAIGHT TIME	HR			28	28
631.10	AIR COMPRESSOR (INCLUDING OPERATOR)	HR			8	8
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR			20	20
631.13	BULLDOZER (INCLUDING OPERATOR)	HR			20	20
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	HR			40	40
631.22	FRONT END LOADER (INCLUDING OPERATOR)	HR			20	20
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	HR			20	20
631.36	FOREMAN	HR			8	8
631.50	JACKHAMMER (AIR TOOL INCLUDING OPERATOR)	HR			8	8
631.51	BUCKET TRUCK	HR			8	8
631.52	SCISSOR LIFT	HR			8	8
631.53	ELECTRICIAN	HR			8	8
631.54	ELECTRICIAN'S APPRENTICE	HR			8	8
634.25	SERVICE POLE COMPLETE WITH CABINET AND CONTROLS	EA	1			1
643.712	LANE USE SIGNAL	EA			1	1
645.105	REMOVE AND STACK SIGN	EA			6	6
645.109	REMOVE AND RESET SIGN	EA			18	18
2.45.400	REMOVAL, DISASSEMBLY AND RELOCATION OF					
645.123	VMS AND SUPPORTING STRUCTURE	LS	1			1
645.161	BREAKAWAY DEVICE SINGLE POLE	EA			1	1
645.289	STEEL H-BEAM POLES	LB			1150	1150
645.303	REMOVE AND RESET DELINEATOR	EA			6	6
645.403	INSTALLATION OF TYPE 1 SIGNS	EA			13	13
652.30	FLASHING ARROW	EA	2		1	3
652.312	TYPE III BARRICADES	EA			3	3
652.33	DRUM	EA	85		65	150
652.35	CONSTRUCTION SIGNS	SF	790	120	619.5	1529.5
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	0.3	120	0.7	1029.0
652.41	PORTABLE - CHANGEABLE MESSAGE SIGN	EA	2		0.7	2
652.45	TRUCK MOUNTED ATTENUATOR	CD	10			10
		EA	10		1	10
655.012	INSTALLATION OF CASH LANE CONTROLLER CABINET				1	1
655.02	DVAS MOUNT INSTALLATION	EA			1	1
655.04	INSTALLATION OF SENSOR LOOPS	LS			7	1
655.05	INSTALLATION OF AVI ANTENNAS	EA			7	1
655.07	TRAFFIC CONTROL PEDESTAL PREPARATION WORK	EA			7	1
655.11	#10 AWG WIRE	LF			450	450
655.12	#12 AWG WIRE	LF			600	600
655.13	#14 AWG WIRE	LF.			50	50
655.14	4pr/24 (CATEGORY 5e) CABLE	LF			1700	1700
655.16	FIBER OPTIC CABLE - 6 FIBER	LF			600	600
655.17	IVIS HOMERUN LOOP CABLE (IMSA 50-2 #16)	LF			400	400
655.203	1 1/2" SCHEDULE 80 PVC CONDUIT	LF			50	50
655.2031	2" SCHEDULE 80 PVC CONDUIT	LF			175	175
655.204	3" SCHEDULE 80 PVC CONDUIT	LF			10	10
655.2071	2" GALVANIZED RIGID METAL CONDUIT	LF			190	190
655.2102	2" LIQUID TIGHT METALLIC FLEX CONDUIT	LF			20	20
655.223	TYPE D PULL BOX OUTDOOR CANOPY	EA			4	4
655.81	KEY SWITCH	EA			2	2
656.50	BALED HAY, IN PLACE	EA	10		50	60
656.60	TEMPORARY BERMS	LF	1		600	600
656.62	TEMPORARY SLOPE DRAINS	LF			30	30
656.632	30 INCH TEMPORARY SILT FENCE	LF	250		1500	1750
659.10	MOBILIZATION	LS			1	1
669.01	BOLLARD	EA			4	4
800.501	TOLL GANTRY INSTALLATION	LS			1	1
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	TOLL PLAZA EARTHWORK SUMMARY			
	COMMON EXCAVATION			
	COMMON EXCAVATION (FROM CROSS SECTIONS)	1,094		
	GRUBBING IN FILL	675		
	UNDERCUT (LEDGE UNDERCUT AND FROST TRANSITION)	0		
	EXCAVATION FOR GEOFOAM BLOCK			
	AND LEVELING SAND	3,262		
	EXISTING PAVEMENT REMOVAL (DEDUCT)	184		
	TOTAL COMMON EXCAVATION	D "	4,847	
		Rounding Total	53	
		TOtal	4,900	
_	FILL FOR BORROW CALCULATIONS			
	TOTAL COMMON FILL (FROM CROSS SECTIONS)	6,239		
	GRUBBING IN FILL (ADD)	675		
	GEOFOAM BLOCK (DEDUCT)	2,518		
	LEVELING SAND (DEDUCT)	409		
	TOTAL FILL	- 	3,987	
			,	
	ROCK EXCAVATION FOR ESTIMATE			
	ROCK EXCAVATION (FROM CROSS SECTIONS)	0	•	
	TOTAL ROCK EXCAVATION		0	
-	AVAILABLE COMMON EXCAVATION BORROW CALCULATIONS			
	(1) TOTAL COMMON EXCAVATION		4,847	
	DEDUCTIONS:		,	
	GRUBBING IN CUT			
	GRUBBING IN FILL	675		
	MUCK EXCAVATION	3,262		
	PAVEMENT SALVAGE (CUT & FILL)			
	(2) TOTAL DEDUCTIONS		3,937	
	TOTAL AVAILABLE COMMON EXCAVATIONS		910	
	TOTAL AVAILABLE STRUCT. EXCAVATIONS (UNDERDRAIN ONLY) TOTAL AVAILABLE NON-ROCK EXCAVATION		910	
	TOTAL AVAILABLE NON-ROOK EXCAVATION		910	
	COMPUTATION OF WASTE STORAGE & WASTE MATERIAL			
	TOTAL AVAIL. WASTE STORAGE AREA (FROM CROSS SECTIONS)		3,987	
	GRUBBING IN CUT	0		
	GRUBBING IN FILL	675		
	UNDERCUT	0		
	EXISTING PAVEMENT REMOVAL STONE DITCH PROTECTION AND DIDDAD A DEAS	184		
	STONE DITCH PROTECTION AND RIPRAP AREAS TOTAL WASTE MATERIAL TO BE UTILIZED	20	0	
	TOTAL WASTE MATERIAL TO BE UTILIZED TOTAL WASTE MATERIAL TO BE WASTED		879	
	ON LIVE OF THE CONTRACTOR OF THE CONTRACTOR		019	
	COMPUTATION OF GRANULAR BORROW FOR ESTIMATE			
	GRANULAR BORROW FOR UNDERCUTTING AND BOX CULVERT	0		
	GRANULAR BORROW	0 x 1.15	0	
_	COMPUTATION FOR COMMON BORROW FOR ESTIMATE			
	(3) TOTAL FILL (TOTAL FILL - GRANULAR BORROW)		3,987	
	TOTAL AVAIL. NON-ROCK EXCAV. 910 x 0.85 =	774		
	TOTAL AVAIL ROCK EXCAV. 0 x 1.33 =	0		
	TOTAL AVAIL. STR. ROCK EXCAV. 0 x 1.33 =	0	771	
	(4) TOTAL AVAILABLE EXCAVATION EXCESS EXCAVATION = TOTAL AVAILABLE EXCAVATION MIN	= IIIS TOTAL FILL	774 -2,335	
	PLUS TOTAL WASTE MATERIAL TO BE WASTED	IOO TOTAL LILL	-2,000	
	1 200 TO IAL WASTE WATER TO BE WASTED			

NOTE: AN ESTIMATED QUANTITY OF ITEM 202.203 PAVEMENT BUTT JOINT - 350 SY AND ITEM 403.21 HOT MIX ASPHALT, 9.5 mm - 100 TONS, HAVE BEEN INCLUDED TO ADDRESS THE PAVEMENT SHIM NEEDED ON 1-195 WESTBOUND (STATION 109+00 +/- TO STATION 111+50 +/-, LEFT) AT INTERCHANGE 36.

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THE GOLD STAR MEMORIAL HIGHWAY INTERCHANGE 36
SACO TOLL PLAZA LANE ADDITION
ESTIMATED QUANTITIES &
EARTHWORKS SUMMARY

CONTRACT:2015.06

SHEET NUMBER:

MTA PROJECT MANAGER: RALPH C. NORWOOD, IV, PE

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