MAINE TURNPIKE AUTHORITY

ADDENDUM NO. 2

CONTRACT 2019.11

NORTHERN BRIDGE REPAIRS, 6 LOCATIONS AND
EMERGENCY VEHICLE RAMPS AND
NEW GLOUCESTER TOLL PLAZA REHABILITATION
MILE 62.3 TO 95.6

The following changes are made to the Proposal, Plans, and Specifications.

PROPOSAL

The 10 Proposal Sheets P-3 (Revised 3/7/19) through P-10B (Revised 3/7/19) are deleted and replaced with 10 Proposal Sheets P-3 (Revised 3/15/19) through P-10B (Revised 3/15/19). Changes made include modifying quantities for 203 and 304 Items.

PLANS

Plan sheets 2 and 3 of 105, "Estimated Quantities" are deleted and replaced in their entirety with the attached revised sheets 2 and 3.

Plan sheet 4 of 105, "General Notes" is deleted and replaced in its entirety with the attached revised sheet 4.

Plan sheet 16 of 105, "Bennett Road EVR (Mile 68.6) Limit of Disturbance Plan" is deleted and replaced in its entirety with the attached revised sheet 16.

Plan Sheet 103 of 105, "Demo Pavement Plan" is deleted and replaced in its entirety with the attached revised sheet 103.

Plan Sheet 104 of 105, "Rehab Pavement Slab" is deleted and replaced in its entirety with the attached revised sheet 104.

SPECIFICATIONS

Special Provision 403 Hot Mix Asphalt Pavement: sheets SP-31 – SP-32 are deleted and replaced with revised sheets SP-31 – SP-32 (Revised 3-14-19)

Special Provision 607 Fences (Automatic Entry Gate System): sheets SP-84 – SP-87 (Revised 3/7/19) are deleted and replaced with revised sheets SP-84 – SP-87 (Revised 3/14/19).

QUESTIONS

The following are questions were submitted to the Maine Turnpike Authority in writing. The answers to the questions are noted. Bidders shall utilize this information in preparing their bid.

Question 1: The MDOT has gone to 65 gyration mix designs for all mixes. Will this be acceptable for the pavement on this project?

Answer: Yes. The 403 SP has been revised accordingly.

Question 2: In reference to sheet 33 of 105, note under median work area detail, is the concrete barrier only required when working on the median pier at the Rt 26 bridge? Or at all median piers? Or at all piers (piers 1, 2, &3)??

Answer: Concrete barrier is required when work is being done on the travelway side of all piers.

Question 3: In reference to sheet 33 of 105, Guardrail over lap detail, if the guardrail overlap detail is used is the contractor paid for a unit under the work zone crash cushion item?

Answer: No.

Question 4: In reference to sheet 90 of 105, Pleasant River Culvert and sheet 93 of 105 Cole Brook Culvert, can the existing culvert and wing wall dimensions be provided?

Answer: Please see the existing plans posted on the project website.

Question 5: In reference to sheet 90 of 105, Pleasant River Culvert and sheet 93 of 105 Cole Brook Culvert, can any water elevations, water flows and water depths be provided for use in estimating the cofferdams be provided?

Answer: No precise water flows or elevations are available for typical water flows. Cole Brook Culvert is approximately half full of sediment and typical (non-storm) summer water depths are approximately 1 to 2 feet. Pleasant River Culvert has approximately 1 foot of sediment and typical (non-storm) water depths are approximately 1 to 2 feet. Estimated flow-duration guidance for the given sites may be generated from the USGS StreamStats system at https://streamstats.usgs.gov/ss/.

Question 6: In reference to sheet 90 of 105, Pleasant River Culvert and sheet 93 of 105 Cole Brook Culvert, note middle of the sheet concerning crack repair, can crack repair at both culverts be repaired to 1' below mud line (typ) as noted on sheet 93. Note: it will be very difficult to control or eliminate water much below the mudline to perform the epoxy injection.?

Answer: Crack repair shall be as noted on the plans. Pleasant River Culvert has much less sediment in it than Cole Brook Culvert.

Question 7: In reference to page SP-16 107.4.6 Prosecution of work bullet #3 can curing compound be used to achieve the 5 day cure?

Answer: Curing shall be in accordance with MTA Supplemental Specification Section 502.

Question 8: Will flagger hours be paid for at Webster Road Bridge and Plains Road Bridge for activities performed after the 3 week closure to perform activities such as sealing the shoulders, striping, etc?

Answer: No. Flagger payment shall be incidental to the various pay items as stated in Special Provision 652 (Flaggers).

ATTACHMENTS

- Proposal Sheets (10 pages)
- Plan Sheets (6 pages)
- Specifications (6 pages)

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

The total number of pages included with this addendum is twenty-six (26).

All bidders are requested to acknowledge the receipt of the Addendum No. 2 by signing below and faxing this sheet to Nathaniel Carll, Purchasing Department, Maine Turnpike Authority at 207-871-7739. Bidders are also required to acknowledge receipt of this Addendum No. 2 on Page P-11 of the bid package.

_____
Business Name

_____
Print Name and Title

_____
Signature

_____
Date

March 15, 2019

Very truly yours,

MAINE TURNPIKE AUTHORITY

_____
Nathaniel Carll
Purchasing Department
Maine Turnpike Authority

SCHEDULE OF BID PRICES
CONTRACT NO. 2019.11

Northern Bridge Repairs, 6 Locations (Mile 64.3 to Mile 72.9)
Emergency Vehicle Ramps, Bennett Road (Mile 68.6)
New Gloucester Toll Plaza (Mile 67)

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
201.11	CLEARING	Acre	0.7				
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	Cubic Yard	55				
202.127	REMOVING EXISTING BITUMINOUS PAVEMENT	Lump Sum	1				
202.1295	HYDRO-DEMOLITION	Square Yard	60				
202.191	REMOVING EXISTING DRAIN TROUGHS	Lump Sum	1				
202.202	REMOVING PAVEMENT SURFACE	Square Yard	287				
202.203	PAVEMENT BUTT JOINT	Square Yard	580				
203.20	COMMON EXCAVATION	Cubic Yard	1,033				
203.25	GRANULAR BORROW	Cubic Yard	108				
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	Cubic Yard	1,340				

CARRIED FORWARD:		

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
304.14	AGGREGATE BASE COURSE - TYPE A	Cubic Yard	360				
403.208	HOT MIX ASPHALT - 12.5MM NOMINAL MAXIMUM SIZE	Ton	705				
403.211	HOT MIX ASPHALT - SHIM	Ton	15				
403.213	HOT MIX ASPHALT, 12.5MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE COURSE)	Ton	830				
409.15	BITUMINOUS TACK COAT RS-1 OR RS-Ah - APPLIED	Gallon	417				
419.30	SAWING BITUMINOUS PAVEMENT	Linear Foot	530				
470.08	BERM DROP OFF CORRECTION - GRINDINGS	Ton	110				
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	Cubic Yard	50				
502.262	STRUCTURAL CONCRETE ROADWAY SLAB WEARING SURFACE	Cubic Yard	5				
502.42	STRUCTURAL CONCRETE, ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGE	Cubic Yard	13				
502.701	BRIDGE DRAIN GRATE MODIFICATIONS	Each	8				
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	Pound	17,215				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
503.15	EPOXY-COATED REINFORCING STEEL, PLACING	Pound	17,215				
503.17	MECHANICAL/WELDED SPLICE	Each	42				
503.90	SYNTHETIC FIBER REINFORCEMENT	Pound	25				
507.0928	ALUMINUM BRIDGE RAILING - RAIL SECTION REPLACE	Linear Foot	20				
507.095	ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION	Each	88				
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	Lump Sum	1				
511.07	COFFERDAM	Each	4				
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES	Square Yard	1,355				
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	Square Yard	2,265				
515.23	EPOXY OVERLAY	Square Yard	12				
518.10	ABUTMENT REPAIRS	Square Foot	815				
518.20	PIER REPAIRS	Square Foot	2,105				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
518.40	EPOXY INJECTION CRACK REPAIR	Linear Foot	445				
518.43	PARAPET JOINT REPAIRS	Linear Foot	1,450				
518.71	REPAIR OF OVERHEAD SURFACES < 8 INCHES	Square Foot	75				
518.75	FASCIA AND OVERHANG REPAIRS	Square Foot	500				
518.80	PARTIAL DEPTH CONCRETE DECK REPAIRS	Square Foot	270				
518.81	FULL DEPTH CONCRETE DECK REPAIRS	Square Foot	15				
520.21	EXPANSION DEVICE - GLAND SEAL	Each	2				
520.2211	EXPANSION DEVICE MODIFICATIONS (WEBSTER ROAD)	Each	2				
520.2211	EXPANSION DEVICE MODIFICATIONS (PLAINS ROAD)	Each	2				
523.522	BEARING BOLSTERS & SPACER PLATES, FABRICATED AND DELIVERED	Lump Sum	1				
523.524	BEARING BOLSTERS & SPACER PLATES, INSTALLED	Lump Sum	1				
524.7211	JACKING EXISTING SUPERSTRUCTURE	Lump Sum	1				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1	Lump Sum	1				
526.306	TEMPORARY CONCRETE BARRIER, TYPE 1 - SUPPLIED BY THE AUTHORITY	Lump Sum	1				
527.341	WORK ZONE CRASH CUSHIONS - TL-3	Unit	14				
527.342	WORK ZONE CRASH CUSHIONS - TL-2	Unit	2				
603.169	15 INCH CULVERT PIPE OPTION III	Linear Foot	150				
603.55	CONCRETE PIPE TIES	Group	18				
603.91	PRESSURE TREATED WOOD DRAIN TROUGH	Linear Foot	80				
606.1301	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED)	Linear Foot	532				
606.1303	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, 15' RADIUS AND LESS)	Linear Foot	19				
606.1304	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, OVER 15' RADIUS)	Linear Foot	71				
606.1305	31" W-BEAM GUARDRAIL - MID-WAY SPLICE FLARED TERMINAL (31" HEIGHT)	Each	1				

CARRIED FORWARD:		

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
606.1351	TERMINAL END - ANCHORED END - 31" W-BEAM GUARDRAIL	Each	4				
606.1723	BRIDGE TRANSITION - TYPE III	Each	4				
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	Each	9				
606.3631	GUARDRAIL - REMOVE AND STACK OR DISPOSE	Linear Foot	769				
607.09	WOVEN WIRE FENCE - METAL POSTS	Linear Foot	130				
607.17	CHAIN LINK FENCE - 6 FOOT	Linear Foot	545				
607.23	CHAIN LINK FENCE GATE	Each	6				
607.2326	AUTOMATIC ENTRY GATE SYSTEM	Lump Sum	1				
607.32	BRACING ASSEMBLY TYPE I - METAL POSTS	Each	8				
607.33	BRACING ASSEMBLY TYPE II - METAL POSTS	Each	2				
607.34	BRACING ASSEMBLY CHAIN LINK FENCE	Each	32				
609.191	CONCRETE CURB TYPE 2	Linear Foot	60				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
610.08	PLAIN RIPRAP	Cubic Yard	26				
613.319	EROSION CONTROL BLANKET	Square Yard	1,390				
615.07	LOAM	Cubic Yard	400				
618.14	SEEDING METHOD NUMBER 2	Unit	33				
619.1201	MULCH - PLAN QUANTITY	Unit	28				
619.1301	BARK MULCH	Cubic Yard	105				
620.58	EROSION CONTROL GEOTEXTILE	Square Yard	34				
620.625	CELLULAR CONFINEMENT SYSTEM	Square Yard	350				
621.037	EVERGREEN TREE (5'-6') GROUP GP A	Each	10				
626.12	QUAZITE JUNCTION BOX	Each	3				
626.22	NON-METALLIC CONDUIT	Linear Foot	360				
626.223	HORIZONTAL DIRECTIONAL DRILLED CONDUIT	Linear Foot	720				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
627.712	WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	Linear Foot	4,510				
627.752	TEMPORARY WHITE OR YELLOW PAVEMENT AND CURB MARKING	Square Foot	36				
627.77	REMOVING PAVEMENT MARKINGS	Square Foot	720				
627.78	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	Linear Foot	10,550				
629.05	HAND LABOR - STRAIGHT TIME	Hour	60				
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	Hour	30				
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	Hour	60				
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	Hour	5				
631.36	FOREMAN	Hour	30				
639.19	FIELD OFFICE, TYPE B	Each	1				
643.72	TEMPORARY TRAFFIC SIGNAL	Lump Sum	1				
645.106	DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	Each	10				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
645.116	REINSTALL REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	Each	10				
645.271	REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN, TYPE I	Square Foot	45				
652.30	FLASHING ARROW BOARD	Each	14				
652.312	TYPE III BARRICADE	Each	13				
652.331	DRUM	Lump Sum	1.0				
652.34	CONE	Each	15				
652.35	CONSTRUCTION SIGNS	Square Foot	9,614				
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	Lump Sum	1				
652.38	FLAGGERS	Hour	1,010				
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	Each	8				
652.45	TRUCK MOUNTED ATTENUATOR	Cal. Day	50				
652.451	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	Cal. Day	46				
			CARRIED FORWARD:				

Item No.	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
			BROUGHT FORWARD:				
652.46	TEMPORARY PORTABLE RUMBLE STRIPS	Unit	150	$150	00	$22,500	00
655.04	INSTALLATION OF SENSOR LOOPS	Lump Sum	1				
656.50	BALED HAY, IN PLACE	Each	240				
656.60	TEMPORARY BERMS	Linear Foot	230				
656.62	TEMPORARY SLOPE DRAINS	Linear Foot	230				
656.632	30 INCH TEMPORARY SILT FENCE	Linear Foot	3,330				
659.10	MOBILIZATION	Lump Sum	1				
			TOTAL:				

SPECIAL PROVISION

SECTION 403

HOT MIX ASPHALT PAVEMENT

Course	HMA Grading	Item Number	Total Thickness	No. of Layers	Complimentary Notes
Route 26 Underpass Bridge					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**B, E, I, J, L, N**
Base	**12.5mm**	**403.213**	**1.5”**	**1**	**B, E, J, L, N**
Route 26 Underpass Approaches					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**B, E, I, J, L, N**
Shim	**9.5mm**	**403.211**	**Var.**	**(2” max. lift)**	**B, E, J, L, N**
Base	**12.5mm**	**403.213**	**4.5”**	**2**	**B, E, J, L, N**
Webster Road Underpass Bridge Plains Road Underpass Bridge					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**B, E, I, J, L, N**
Base	**12.5mm**	**403.213**	**1.5”**	**1**	**B, E, J, L, N**
Webster Road & Plains Road Underpasses Approaches Mill & Fill					
Wearing	**12.5mm**	**403.208**	**1.5”**	**1**	**B, E, I, J, L, N**
Emergency Vehicle Ramp					
Wearing	**12.5mm**	**403.208**	**2”**	**1**	**B, E, J, L, N**
Base	**12.5mm**	**403.213**	**2”**	**1**	**B, E, J, L, N**
Emergency Vehicle Ramp (Northbound) – 2” Mill & 2” Overlay Areas					
Wearing	**12.5mm**	**403.208**	**2”**	**1**	**B, E, J, L, N**

COMPLEMENTARY NOTES

A. The required PGAB for this mixture shall be **64E-28.**
B. The required PGAB for this mixture shall be **64-28.**
C. A maximum of 15 percent RAP may be used.
D. RAP may not be used.

E. The Maine DOT will conduct the job mix verification. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**. (N design) Minimum and Maximum PGAB content shall not apply.
F. The MTA will conduct the job mix verification. The aggregate qualities shall meet the design traffic level of 10 to <30 million ESALS for mix placed under this contract. The design verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**. (N design)
G. A material transfer vehicle (MTV) shall be used for the placement of Hot Mix Asphalt wearing surface on all roadways including acceleration and deceleration lanes and all ramps.
H. Joints shall be constructed as the "notched wedge" type in accordance with Subsection 401.17.
I. Joint density will be measured in accordance with Subsection 401.165.
J. Tack coat shall be applied between all layers of pavement at a rate of 0.04 G/SY.
K. PGAB shall conform to the provisions of 403.02 – Polymer Modified PGAB for HMA
L. The contractor shall furnish a quality control technician equipped with an approved densometer to ensure density requirements are met.
M. Hydrated Lime shall be incorporated into the mixture.
N. No vehicular loads shall be permitted on newly completed pavement until adequate stability has been attained and the material has cooled sufficiently to prevent distortion or loss of fines. The newly paved area may be opened to traffic after the internal temperature of the pavement has cooled to 120° F. The Resident will test the internal temperature of the pavement and shall be the sole judge as to the opening to traffic. The period of time before opening to traffic may be extended at the discretion of the Resident. The lane closure may not be removed until the internal temperature has cooled to 120° F.

SPECIAL PROVISION

SECTION 607

FENCES

(Automatic Entry Gate System)

607.01 Description

The following paragraphs are added:

This work shall consist of furnishing and constructing a bi-directional traffic, Automatic Upswing Rigid Cantilever Arm Barrier Gate (Gate System) in accordance with the following specifications.

The installation shall include the assembly and erection of all parts and materials complete at the locations shown on the Plans and as recommended by the Manufacturer or as approved by the Resident.

607.02 Materials

The following paragraph is added:

The automatic entry gate shall be the StrongArm14F UPS Premium Industrial Barrier System manufactured by Nice/HySecurity, 6705 S 209th St, Suite 101, Kent, WA 98032, (800) 321-9947. It shall have the following features:

Arm Length Max.	14 Feet
Open/Close Time	6 - 10 seconds
Arm Design	Aluminum, Side Mount, Breakaway
Temperature Rating	-40 degrees F to 158 degrees F
Duty Cycle	200 cycles/hr
Warranty	5 years
Relays	Three Standard with 8 Additional using Hy8 Relay
Communications	RS-232m RS-485, Ethernet/Fiber using Hynet Gateway, any necessary software shall be provided to the MTA.
Back Up Power	Integrated UPS shall be provided

Foundations necessary for the automatic entry gates, cabinets and any ancillary equipment shall meet the requirements of Section 626 of the Standard Specifications and the Manufacturer's recommendations.

607.03 General

The following paragraphs are added:

A plan for the Gate System and conduit system shall be designed and submitted to the Resident Engineer for approval. The system shall be designed for bi-directional traffic and provide vehicles sensors to determine when vehicles have passed through the gate and it is safe for the gate to close.

Operational control of the automatic entry gate shall be as follows:

The gate operation shall be via the existing Mighty Mule gate remote transmitters that the MTA currently utilizes and in addition shall be controlled by the MTA Lenel electronic card system. The MTA will be responsible for providing the Lenel card system. Contractor shall be responsible for the integration of the Lenel system with the Gate System. Contractor shall provide and install conduit, mounting posts, & foundations for card readers located 20 feet on either side of gate. Readers shall be mounted 4 feet (for cars/light duty trucks) and 6 feet (for large vehicles) above the road surface and protected with a bollard. Gate system shall also include a Knox Single Key Switch on Mounting Plate (Knox Model #3502) located on the local road side of the gate attached to the same post as the Lenel card reader.

A UPS battery backup system that is capable of operating the automatic entry gate through a power outage shall be included in the installation.

Gate Beam shall be replaceable and come with three (3) additional replacement beams. Gate beams and gate support (control cabinet) shall be retroreflectorized with Rail Gate Arm Type V alternating red and white prismatic reflective tape both sides, for full width of beam and height of cabinet.

Obstruction Detection Devices: Provide Gate System with automatic safety sensor(s). Activation of sensor(s) causes operator to immediately function as follows:

- Action: Reverse gate in both opening and closing cycles and hold until clear of obstruction.
- Action: Stop gate in opening cycle and gate in closing cycle and hold until clear of obstruction.
- Internal Sensor: Built-in torque or current monitor senses gate is obstructed.
- Photoelectric/Infrared Sensor System: Designed to detect an obstruction in gate's path when infrared beam in the zone pattern is interrupted

Contractor will be responsible for the meter, meter pedestal, separate 334 NEMA cabinet to house the necessary circuit breakers for the gate system and the Lenel Card System.

Gate System shall include 10 Bollards – Bollards will be provided by the MTA for installation by the Contractor. Bollards shall be picked up by the Contractor at the West Gardiner Maintenance Yard. Bollards shall be installed on either side of the gate mechanism and at the end approximately two feet from the end of the gate when it is in the closed position. A clear distance of no less than 16 feet and no more than 16’6” should be provided for vehicles to drive through the gate opening. Additionally, bollards will be placed with each card reader and placed such that the bollard does not obstruct the intended use of the card reader or hinder normal vehicular movement and plowing operations.

The Contractor shall install wires for communications and wires for electrical power in separate conduits.

All materials and workmanship shall conform to the requirements of the National Electric Code.

The Contractor shall provide a qualified technician to thoroughly review and confirm that the gate system is satisfactory and operational as designed. Prior to the gate system becoming operational, both Contractor and Resident shall review and comment upon the Gate System.

607.06 Method of Measurement

Automatic Entry Gate System will be measured as one lump sum which shall include fully operational systems at both the northbound and southbound emergency vehicle ramps.

607.07 Basis of Payment

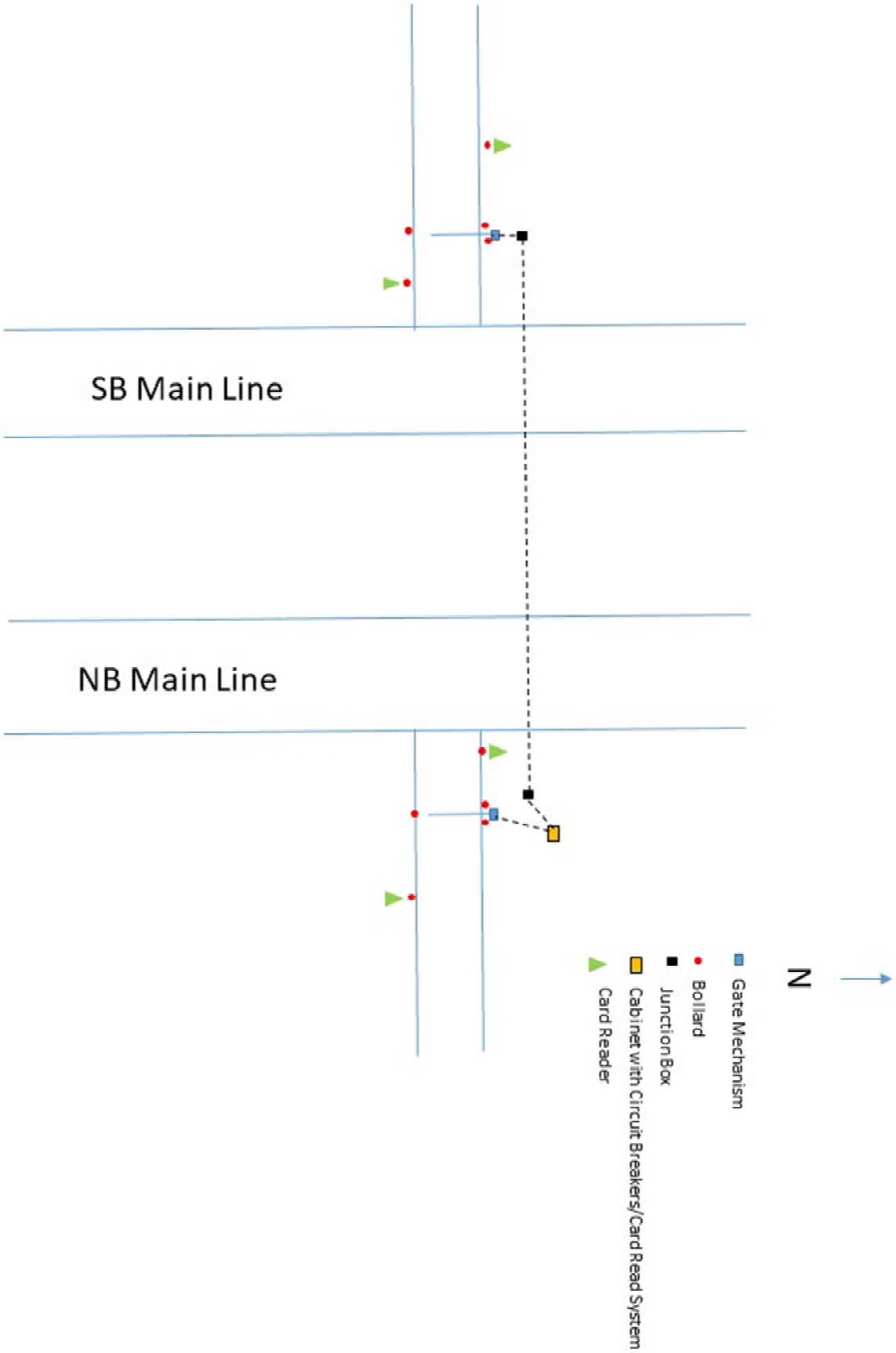
Automatic Entry Gate System will be paid for the complete in place system, which payment shall be full compensation for furnishing and installing all materials, necessary hardware, cabinets, foundations, meter, wire, bollard installation, excavation and concrete, and all incidentals required for a complete functioning installation at both the northbound and southbound emergency vehicle ramps. Materials and work required to connect to the existing utility pole and removal and proper disposal of existing gate will be considered incidental to this work.

Gate connection to existing or proposed fence will not be measured separately for payment, but shall be incidental to the gate work.

Conduit shall be paid under respective items in Section 626 of the Standard Specifications.

Payment will be made under:

Pay Item		Pay Unit
607.2326	Automatic Entry Gate System	Lump Sum


SB Main Line
NB Main Line
Gate Mechanism
Bollard
Junction Box
Cabinet with Circuit Breakers/Card Read System
Card Reader
N

Date:3/15/2019

ESTIMATED QUANTITIES

Item No.	Item Description	Unit	Quantities								
			Mile 62.3 Pleasant River Culvert	Mile 64.3 Route 26 Underpass	Mile 65.25 Cole Brook Culvert	Mile 68.6 Bennett Road EVR	Mile 72.9 Foster Brook Culvert	Mile 82.7 Webster Road Underpass	Mile 95.6 Plains Road Underpass	Mile 67.0 New Gloucester Toll Plaza	Total Quantity
201.11	CLEARING	AC		0.10		0.60					0.70
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	CY		55							55
202.127	REMOVING EXISTING BITUMINOUS PAVEMENT (2765 SY)	LS		0.47				0.20	0.33		1
202.1295	HYDRO-DEMOLITION	SY								60	60
202.191	REMOVING EXISTING DRAIN TROUGHS	LS		1							1
202.202	REMOVING PAVEMENT SURFACE	SY		240		47					287
202.203	PAVEMENT BUTT JOINT	SY		2		2		250	330		580
203.20	COMMON EXCAVATION	CY		373		660					1,033
203.25	GRANULAR BORROW	CY		108		2					108
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	CY		390		950					1,340
304.14	AGGREGATE BASE COURSE - TYPE A	CY				360					360
403.208	HOT MIX ASPHALT - 12.5MM NOMINAL MAXIMUM SIZE	TON		218		310		65	112		705
403.211	HOT MIX ASPHALT - SHIM	TON		15							15
403.213	HOT MIX ASPHALT, 12.5MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE COURSE)	TON		378		330		45	77		830
409.15	BITUMINOUS TACK COAT RS-1 OR RS-Ah - APPLIED	GAL		188		120		40	69		417
419.30	SAWING BITUMINOUS PAVEMENT	LF		140		390					530
470.08	BERM DROP OFF CORRECTION - GRINDINGS	TON				110					110
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	CY		50							50
502.262	STRUCTURAL CONCRETE ROADWAY SLAB WEARING SURFACE	CY								5	5
502.42	STRUCTURAL CONCRETE, ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGE	CY		13							13
502.701	BRIDGE DRAIN GRATE MODIFICATIONS	EA		2				2	4		8
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	LB		17,215							17,215
503.15	EPOXY-COATED REINFORCING STEEL, PLACING	LB		17,215							17,215
503.17	MECHANICAL/WELDED SPLICE	EA		42							42
503.90	SYNTHETIC FIBER REINFORCEMENT	LB								25	25
507.0928	ALUMINUM BRIDGE RAILING - RAIL SECTION REPLACE	LF		20							20
507.095	ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION	EA		32				20	36		88
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (2765 SY)	LS		0.47				0.20	0.33		1
511.07	COFFERDAM	EA	2		2						4
515.201	PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES	SY		675				275	405		1,355
515.202	CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES	SY		890				470	755	150	2,265
515.23	EPOXY OVERLAY	SY								12	12
518.10	ABUTMENT REPAIRS	SF	125	520	125			35	10		815
518.20	PIER REPAIRS	SF		1,155				220	730		2,105
518.40	EPOXY INJECTION CRACK REPAIR	LF	125	40	275				5		445
518.43	PARAPET JOINT REPAIRS	LF		580				325	545		1,450
518.71	REPAIR OF OVERHEAD SURFACES < 8 INCHES	SF						75			75
518.75	FASCIA AND OVERHANG REPAIRS	SF							500		500
518.80	PARTIAL DEPTH CONCRETE DECK REPAIRS	SF		85				75	110		270
518.81	FULL DEPTH CONCRETE DECK REPAIRS	SF		5				5	5		15
520.21	EXPANSION DEVICE - GLAND SEAL	EA		2							2
520.2211	EXPANSION DEVICE MODIFICATIONS (WEBSTER ROAD)	EA						2			2
520.2211	EXPANSION DEVICE MODIFICATIONS (PLAINS ROAD)	EA							2		2
523.522	BEARING BOLSTERS & SPACER PLATES, FABRICATED AND DELIVERED	LS		1							1
523.524	BEARING BOLSTERS & SPACER PLATES, INSTALLED	LS		1							1
524.7211	JACKING EXISTING SUPERSTRUCTURE	LS		1							1
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1	LS	0.17		0.17	0.25	0.17	0.11	0.11		1
526.306	TEMPORARY CONCRETE BARRIER, TYPE 1 - SUPPLIED BY THE AUTHORITY	LS		1							1
527.341	WORK ZONE CRASH CUSHIONS - TL-3	UNIT	2	2	2	2	2	2	2		14
527.342	WORK ZONE CRASH CUSHIONS - TL-2	UNIT		2							2
603.169	15 INCH CULVERT PIPE OPTION III	LF				150					150
603.55	CONCRETE PIPE TIES	GP					18				18
603.91	PRESSURE TREATED WOOD DRAIN TROUGH	LF		80							80
606.1301	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED)	LF		450		82					532
606.1303	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, 15' RADIUS AND LESS)	LF				19					19
606.1304	31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, OVER 15' RADIUS)	LF		25		46					71
606.1305	31" W-BEAM GUARDRAIL - MID-WAY SPLICE FLARED TERMINAL (31" HEIGHT)	EA		1							1
606.1351	TERMINAL END - ANCHORED END - 31" W-BEAM GUARDRAIL	EA		1		3					4
606.1723	BRIDGE TRANSITION - TYPE III	EA		4							4
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	EA		6		3					9
606.3631	GUARDRAIL - REMOVE AND STACK OR DISPOSE	LF		590		179					769
607.09	WOVEN WIRE FENCE - METAL POSTS	LF				130					130
607.17	CHAIN LINK FENCE - 6 FOOT	LF						285	260		545
607.23	CHAIN LINK FENCE GATE	EA		2				2	2		6
607.2326	AUTOMATIC ENTRY GATE SYSTEM	LS				1					1

ROUTE 26 EARTHWORK SUMMARY

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	220	
COMMON EXCAVATION (FROM BRIDGE)	93	
GRUBBING IN FILL	21	
PAVEMENT SALVAGE IN FILL	36	
TOTAL COMMON EXCAVATION (for estimate)		370

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	74	
GRUBBING IN FILL	21	
PAVEMENT SALVAGE IN FILL	36	
TOTAL FILL		131

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		370
DEDUCTIONS:		
GRUBBING IN CUT	33	
GRUBBING IN FILL	21	
PAVEMENT SALVAGE (CUT & FILL)	151	
(2) TOTAL DEDUCTIONS		206
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)		164
RIPRAP EXCAVATION (1/2 USABLE)		10
TOTAL AVAILABLE NON-ROCK EXCAVATION		174

COMPUTATION OF WASTE STORAGE & WASTE MATERIAL

TOTAL AVAIL. WASTE STORAGE AREA (FROM CROSS SECTIONS)		0
GRUBBING IN CUT	33	
GRUBBING IN FILL	21	
RIPRAP EXCAVATION (1/2 WASTE)	10	
TOTAL WASTE MATERIAL TO BE UTILIZED (LOWER OF TOTAL AVAILABLE WASTE STORAGE AREA OR TOTAL WASTE MATERIAL)		0
TOTAL WASTE MATERIAL TO BE WASTED (TOTAL WASTE MATERIAL MINUS TOTAL WASTE MATERIAL TO BE UTILIZED)		64

COMPUTATION OF GRANULAR BORROW FOR ESTIMATE

GRANULAR BORROW FOR BRIDGE	108			
GRANULAR BORROW =	108	x 1.00	=	108

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

(3)TOTAL FILL				131
TOTAL AVAIL. NON-ROCK EXCAV.	174	x 0.90	=	156
TOTAL AVAIL. ROCK EXCAV.	0	x 1.30	=	0
TOTAL AVAIL. STR. ROCK EXCAV.	0	x 1.30	=	0
TOTAL WASTE MATERIAL TO BE UTILIZED	0	x 1.10	=	0
(4)TOTAL AVAILABLE EXCAVATION				156
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION				-25

IF NO BORROW IS NEEDED, SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL, PLUS TOTAL WASTE MATERIAL TO BE WASTED: 90

Filename: ...\MSTA\0028_Quantities.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date
1	Add 503.17	DSM	3/19
2	Add 526.301 and Revised 203.20, 203.25, 304.10, and 526.306	DSM	3/19

Designed by: T.Y. LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	DSM	1/2019	Checked	KSD	1/2019
Drawn	DSM	1/2019	In Charge of	DSM	1/2019

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV

NORTHERN BRIDGE REPAIRS & BENNETT ROAD EMERGENCY VEHICLE RAMPS

ESTIMATED QUANTITIES
SHEET 1 OF 2

SHEET NUMBER: QT-01

CONTRACT:2019.11

ESTIMATED QUANTITIES

Item No.	Item Description	Unit	Quantities								
			Mile 62.3 Pleasant River Culvert	Mile 64.3 Route 26 Underpass	Mile 65.25 Cole Brook Culvert	Mile 68.6 Bennett Road EVR	Mile 72.9 Foster Brook Culvert	Mile 82.7 Webster Road Underpass	Mile 95.6 Plains Road Underpass	Mile 67.0 New Gloucester Toll Plaza	Total Quantity
607.32	BRACING ASSEMBLY TYPE I - METAL POSTS	EA				8					8
607.33	BRACING ASSEMBLY TYPE II - METAL POSTS	EA				2					2
607.34	BRACING ASSEMBLY CHAIN LINK FENCE	EA						16	16		32
609.191	CONCRETE CURB TYPE 2	LF		60							60
610.08	PLAIN RIPRAP	CY		20		6					26
613.319	EROSION CONTROL BLANKET	SY		550		840					1,390
615.07	LOAM	CY		70		330					400
618.14	SEEDING METHOD NUMBER 2	UNIT		6		27					33
619.1201	MULCH - PLAN QUANTITY	UNIT		1		27					28
619.1301	BARK MULCH	CY		40				30	35		105
620.58	EROSION CONTROL GEOTEXTILE	SY		15		19					34
620.625	CELLULAR CONFINEMENT SYSTEM	SY		350							350
621.037	EVERGREEN TREE (5'-6') GROUP GP A	EA				10					10
626.12	QUAZITE JUNCTION BOX	EA				3					3
626.22	NON-METALLIC CONDUIT	LF				360					360
626.223	HORIZONTAL DIRECTIONAL DRILLED CONDUIT	LF				720					720
627.712	WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	LF		2,150				860	1,500		4,510
627.752	TEMPORARY WHITE OR YELLOW PAVEMENT AND CURB MARKING	SF		36							36
627.77	REMOVING PAVEMENT MARKINGS	SF		720							720
627.78	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	LF		5,850				1,750	2,950		10,550
629.05	HAND LABOR - STRAIGHT TIME	HR		40		20					60
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	HR		20		10					30
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	HR		40		20					60
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	HR		5							5
631.36	FOREMAN	HR		20		10					30
639.19	FIELD OFFICE, TYPE B	EA	0.03	0.43	0.04	0.18	0.02	0.10	0.18	0.02	1
643.72	TEMPORARY TRAFFIC SIGNAL	LS		1							1
645.106	DEMOUNT REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	EA		3		7					10
645.116	REINSTALL REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN	EA		3		7					10
645.271	REGULATORY, WARNING, CONFIRMATION AND ROUTE MARKER ASSEMBLY SIGN, TYPE I	SF		18		27					45
652.30	FLASHING ARROW BOARD	EA	2	2	2	2	2	2	2		14
652.312	TYPE III BARRICADE	EA		2		2		3	4	2	13
652.331	DRUM	LS	0.14	0.12	0.14	0.12	0.14	0.14	0.14	0.07	1
652.34	CONE	EA								15	15
652.35	CONSTRUCTION SIGNS	SF	1,200	1,850	1,200	1,200	1,200	1,350	1,550	64	9,614
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	LS	0.06	0.38	0.06	0.13	0.06	0.13	0.13	0.05	1
652.38	FLAGGERS	HR		430		580					1,010
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	EA		2		2		2	2		8
652.45	TRUCK MOUNTED ATTENUATOR	CD	4	4	4	6	4	14	14		50
652.451	AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	CD	4	4	4	2	4	14	14		46
652.46	TEMPORARY PORTABLE RUMBLE STRIPS	UNIT	12	12	12	18	12	42	42		150
655.04	INSTALLATION OF SENSOR LOOPS	LS								1	1
656.50	BALED HAY, IN PLACE	EA	10	50	20	100	10	20	30		240
656.60	TEMPORARY BERMS	LF	10	40	10	80	10	40	40		230
656.62	TEMPORARY SLOPE DRAINS	LF	10	40	10	80	10	40	40		230
656.632	30 INCH TEMPORARY SILT FENCE	LF	100	630	160	1,950	150	100	240		3,330
659.10	MOBILIZATION	LS	0.03	0.43	0.04	0.18	0.02	0.10	0.18	0.02	1

BENNETT ROAD EARTHWORK SUMMARY

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	352	
EARTH FROM DRIVES, OLD ROAD, ETC	1	
GRUBBING IN FILL	236	
CULVERT INLET AND OUTLET DITCHES	15	
PAVEMENT SALVAGE IN FILL	61	
TOTAL COMMON EXCAVATION (for estimate)		664

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	200	
GRUBBING IN FILL	236	
GRAVEL TO REPLACE GRUBBING IN FILL (SEE GENERAL NOTES)	-236	
PAVEMENT SALVAGE IN FILL (OFF ROAD ONLY)	5	
TOTAL FILL		205

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		664
DEDUCTIONS:		
GRUBBING IN CUT	191	
GRUBBING IN FILL	236	
PAVEMENT SALVAGE (CUT & FILL)	70	
(2) TOTAL DEDUCTIONS		497
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)		167
RIPRAP EXCAVATION (1/2 USABLE)		3
TOTAL AVAILABLE NON-ROCK EXCAVATION		170

COMPUTATION OF WASTE STORAGE & WASTE MATERIAL

TOTAL AVAIL. WASTE STORAGE AREA (FROM CROSS SECTIONS)		0
GRUBBING IN CUT	191	
GRUBBING IN FILL	236	
RIPRAP EXCAVATION (1/2 WASTE)	3	
TOTAL WASTE MATERIAL TO BE UTILIZED (LOWER OF TOTAL AVAILABLE WASTE STORAGE AREA OR TOTAL WASTE MATERIAL)		0
TOTAL WASTE MATERIAL TO BE WASTED (TOTAL WASTE MATERIAL MINUS TOTAL WASTE MATERIAL TO BE UTILIZED)		430

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

(3)TOTAL FILL				205
TOTAL AVAIL. NON-ROCK EXCAV.	170 x 0.90	=	153	
TOTAL AVAIL. ROCK EXCAV.	0 x 1.30	=	0	
TOTAL AVAIL. STR. ROCK EXCAV.	0 x 1.30	=	0	
TOTAL WASTE MATERIAL TO BE UTILIZED	0 x 1.10	=	0	
(4)TOTAL AVAILABLE EXCAVATION				153
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION				52
USE AGGREGATE SUBBASE COURSE TO ACCOUNT FOR BORROW NEEDED				52

Date:3/15/2019

Filename: ...\MSTA\002B_Quantities.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date
1	Revise 623 items and 652.312	DSM	3/19
2	Revised Earthwork Summary and notes	TSK	3/19

Designed by: T-Y LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	DSM	1/2019	Checked	KSD	1/2019
Drawn	DSM	1/2019	In Charge of	DSM	1/2019

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV

NORTHERN BRIDGE REPAIRS & BENNETT ROAD EMERGENCY VEHICLE RAMPS

ESTIMATED QUANTITIES
SHEET 2 OF 2

SHEET NUMBER: QT-02

CONTRACT:2019.11

Date:3/15/2019

GENERAL CONSTRUCTION NOTES

1. ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD DETAILS HIGHWAYS AND BRIDGES LATEST REVISION AND MDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS.

2. ALL EXISTING DELINEATOR AND MILE MARKER POSTS. WITHIN LIMITS OF DISTURBANCE, SHALL BE REMOVED AND RESET UPON COMPLETION OF THE CONTRACT. PAYMENT WILL BE INCIDENTAL TO CONTRACT.

3. IN AREAS OF PROPOSED PIPE ENTRY GATES AND NEW FENCE, EXISTING CHAIN LINK OR WIRE FENCE SHALL BE REMOVED. REMOVING AND DISPOSING OF EXISTING FENCE SHALL BE INCIDENTAL TO PIPE ENTRY AND PROPOSED FENCE BID ITEMS. PROPOSED FENCE AND PIPE ENTRY GATE SHALL BE INSTALLED CONTINUOUSLY WITH NO GAPS. TO ACCOMMODATE THE REVISED GRADING OF THE EMERGENCY VEHICLE RAMP, WOVEN WIRE FENCE MAY NEED TO BE CUT OR ADDITIONAL POSTS, BRACING ASSEMBLIES, OR FABRIC MAY NEED TO BE INSTALLED. ALL WORK SHALL BE DONE IN COFNORMANCE WITH MAINEDOT STANDARD SPECIFICATIONS, REVISION 2014, SECTION 607 AND MAINE DOT STANDARD DETAILS, REVISION 2014, SECTION 607.

4. CONNECTION FOR PROPOSED FENCE TO EXISTING FENCE SHALL BE INCIDENTAL TO THE CONTRACT INCLUDING ANY REQUIRED ADDITIONAL BRACING FOR THE EXISTING FENCE.

5. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

6. THE CONTRACTOR SHALL NOTE THAT THE ACTUAL EXISTING PAVEMENT THICKNESS MAY VARY FROM THE DEPTHS SHOWN ON THE PLANS. REMOVAL OF EXISTING PAVEMENT SHALL BE PAID AS COMMON EXCAVATION.

7. ALL NEW UNDERGROUND UTILITY SERVICE LINES FOR THE NEW BENNETT ROAD NORTHBOUND AND SOUTHBOUND EVR ACCESS GATES WILL INCLUDE 3-3" DIA. CONDUITS. THE HORIZONTAL DIRECTIONAL DRILLING LOCATION NOTED ON THE PLANS UNDER THE MAINE TURNPIKE WILL INCLUDE 3-3" DIA. CONDUITS. (1)

8. TEN (10) EVERGREEN TREES SHALL BE PLANTED ALONG THE BENNETT ROAD NORTHBOUND EMERGENCY VEHICLE RAMP FOR THE GENERAL PURPOSE OF REPLACING TREES REMOVED IN FRONT OF THE ABUTTING GUAY PROPERTY DURING CONSTRUCTION. THE LOCATION OF THE NEW TREES TO BE PLANTED SHALL BE AT THE DIRECTION OF THE RESIDENT AND WILL BE PAID FOR UNDER ITEM 621.037 - EVERGREEN TREE (5'-6') GP A.

EARTHWORK

1. CLEARING LIMITS SHALL BE 10' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT. THE ACTUAL CLEARING LINES SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND SHALL BE APPROVED BY THE RESIDENT PRIOR TO AND CLEARING TAKING PLACE. ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

2. ALL STUMPS WITHIN THE EVR CLEARING LIMITS SHALL BE REMOVED. THE AREA RE-GRADED, LOAMED, AND SEEDED. STUMP REMOVAL SHALL BE INCIDENTAL TO CLEARING. STUMPS ON BENNETT ROAD EMBANKMENT SHALL BE CUT FLUSH WITH THE EMBANKMENT LEAVING THE ROOT STRUCTURE INTACT. GRUBBING FROM EVR CONSTRUCTION SHOULD BE USED ON THE EMBANKMENT TO CREATE A SMOOTH SURFACE. THE EMBANKMENT AREA SHOULD THEN BE SEEDED AND COVERED WITH EROSION CONTROL BLANKET. THE REMAINING GRUBBINGS SHALL BE USED AS LOAM BETWEEN THE EVR AND BENNETT ROAD TOES OF SLOPE.

3. MUCK EXCAVATION HAS BEEN ESTIMATED FOR ALL WETLAND AREAS AT A 1' DEPTH BELOW NORMAL GRUBBING. THE CONTRACTOR SHALL CONFIRM WITH THE RESIDENT THE ACTUAL LIMITS AND DEPTH BEFORE PLACING ANY AGGREGATE.

4. THE GRUBBING DEPTH HAS BEEN ESTIMATED AS 6" (12" IN WOODED AND WETLAND AREAS). ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT. REPLACEMENT FILL MATERIAL HAS BEEN SHOWN IN THE EARTHWORKS SUMMARY. (2)

5. WASTE MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT SITE, IN ACCORDANCE WITH CHAPTER 404, DEPARTMENT OF ENVIRONMENTAL PROTECTION SOLID WASTE MANAGEMENT RULES.

6. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PAR 1926.650-652 (CONSTRUCTION STANDARDS FOR EXCAVATION).

7. EXISTING INSLOPES STEEPER THAN 2:1 IN PROPOSED FILL AREAS SHALL BE BENCHED AS DIRECTED BY THE RESIDENT.

8. FILL/BORROW SHALL BE COMPACTED TO 90% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR, EXCEPT AS AMENDED BY SPECIAL PROVISION 203. GRANULAR BORROW, AGGREGATE BASE, AND AGGREGATE SUBBASE SHALL BE COMPACTED TO 98% OF THEIR MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR FOR AREAS OF BACKFILL MATERIAL BEHIND ABUTMENTS AND RETAINING WALLS, EXCEPT AS AMENDED BY SPECIAL PROVISION 203. GRANULAR BORROW, AGGREGATE BASE, AND AGGREGATE SUBBASE SHALL BE COMPACTED TO 95% IN ALL OTHER AREAS.

EROSION CONTROL

1. THE ANTICIPATED EROSION CONTROL DEVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROPOSE ACTUAL TYPE AND LOCATION OF DEVICES FOR APPROVAL BY THE RESIDENT. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR PAYMENT.

2. 4" LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREA UNLESS OTHERWISE SPECIFIED ON THE PLANS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS DESIGNATED BY THE RESIDENT. GRUBBINGS FROM THE EVR CONSTRUCTION SHALL BE USED ON THE BENNETT ROAD EMBANKMENT; SEE EARTHWORK NOTE 2.

3. ALL SLOPES SHALL BE SEEDED WITH SEEDING METHOD NO. 2.

4. MULCH SHALL BE APPLIED IN AREAS SEEDED EXCEPT WHERE EROSION CONTROL BLANKET IS SPECIFIED.

5. ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.

6. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ALL DITCHES AND 2:1 SLOPES FROM TOP TO TOE OF SLOPE. LOAM AND SEED SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE EROSION CONTROL BLANKET. LIMITS OF THE EROSION CONTROL BLANKET IN DITCHES SHALL BE 6' WIDE OR AS DESIGNATED BY THE RESIDENT.

7. CELLULAR CONFINEMENT SYSTEM SHALL BE USED ON ALL SLOPES STEEPER THAN 2:1 AND SHALL BE INSTALLED PER THE SPECIAL PROVISIONS.

DRAINAGE

1. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED, OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.

2. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.

3. ALL DITCH ELEVATIONS AND OFFSETS SHOWN ON THE CROSS SECTIONS ARE FOR THE FINISHED DITCH FLOW LINE.

4. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL.

LOCAL ROAD

1. ALL JOINTS BETWEEN EXISTING AND PROPOSED BITUMINOUS PAVEMENT SHALL BE BUTTED. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE CONTRACT PAY ITEMS.

GUARDRAIL

1. GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL. AT THE END OF THE WORK DAY, EVERY DAY, THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASHWORTHY END TREATMENT ON ALL GUARDRAIL WITHIN ALL WORK AREAS.

2. CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL SHALL BE INCIDENTAL TO THE GUARDRAIL ITEM.

3. ALL EXISTING GUARDRAIL TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.

4. POST HOLES FROM GUARDRAIL REMOVED SHALL BE FILLED AND COMPACTED WITH TYPE D GRAVEL. PAYMENT FOR FILLING HOLES SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.

5. TWO REFLECTORIZED FLEXIBLE GUARDRAIL MARKERS (ITEM 606.353) WILL BE INSTALLED AT EACH GUARDRAIL END TREATMENT.

6. FOR ALL NEW GUARDRAIL TYPES "31" W-BEAM GUARDRAIL MID-WAY SPLICE" AND THRIE-BEAM SINGLE RAIL, OFFSET BLOCKS SHALL BE NON-WOOD CONFORMING TO NCHRP 350 TEST LEVEL 3.

UTILITY

1. ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS OTHERWISE NOTED.

2. EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED. NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS ALSO REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO THE START OF THE WORK.

3. THE CONTRACTOR SHALL NOTIFY THE RESIDENT 10 DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT CAN ARRANGE FOR MAINE TURNPIKE UNDERGROUND UTILITY LOCATION. ALL PROPOSED SIGN LOCATIONS AND EXCAVATION LOCATIONS SHALL BE MARKED AT THE NOTIFICATION TIME. EXCAVATING WILL NOT BE PERMITTED UNTIL THE AUTHORITY HAS LOCATED AND MARKED ITS UNDERGROUND UTILITIES, OR NOTIFIED THE RESIDENT THAT THERE ARE NO UNDERGROUND UTILITIES IN THE MARKED AREAS.

4. THE AUTHORITY HAS PROGRAMMED TWO FIELD VISITS FOR MAINE TURNPIKE UTILITY COORDINATION ON THIS PROJECT. SHOULD THE CONTRACTOR NEED ADDITIONAL SIGN LOCATIONS AND/OR ADDITIONAL EXCAVATION LOCATIONS MARKED, OR SHOULD THE CONTRACTOR FAIL TO MAINTAIN THE AUTHORITY'S PREVIOUSLY ESTABLISHED DIG SAFE MARKS, THE AUTHORITY SHALL DEDUCT THE ADDED MARKING COSTS FROM THE CONTRACTOR'S PAYMENTS.

Filename: ...\MSTA\004B_Gen Hwy NOTES.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date
1	Revised General Construction Note 7	TSK	3/19
2	Revised Earthwork Note 4	TSK	3/19

Designed by: T-Y LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	BLT	6/2018	Checked	TSK	1/2019
Drawn	BLT	6/2018	In Charge of	DSM	1/2019

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV

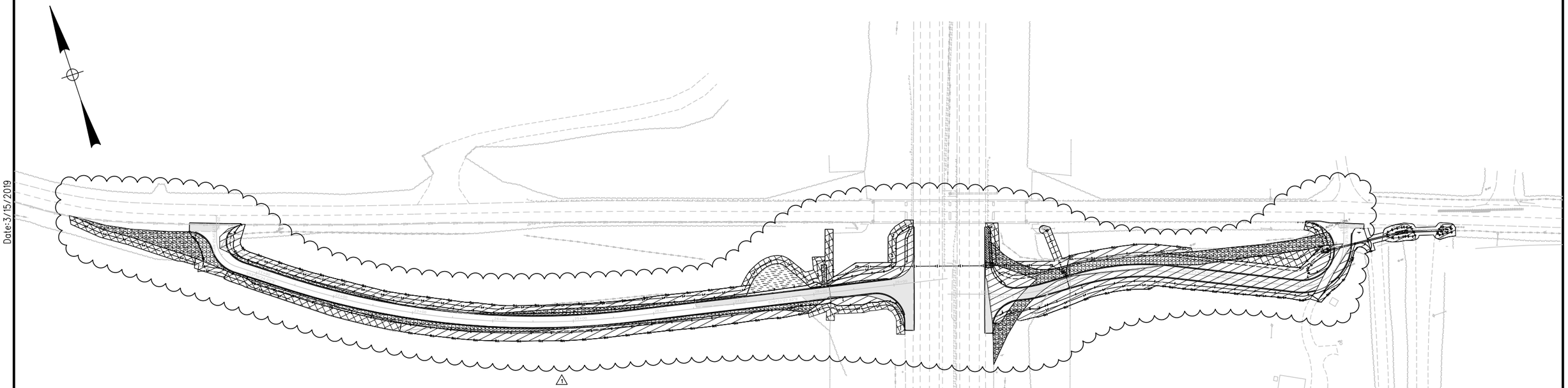
NORTHERN BRIDGE REPAIRS & BENNETT ROAD EMERGENCY VEHICLE RAMPS

GENERAL NOTES

SHEET NUMBER: GN-01

CONTRACT:2019.11

Date:3/15/2019



LIMIT OF DISTURBANCE PLAN - BENNETT ROAD

LEGEND:

- CONTRACT LIMIT OF DISTURBANCE
- CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE
- 1 CURRENT IMPERVIOUS AREA THAT WILL BE VEGETATED IN FINAL CONDITION
- AREA CURRENTLY PAVED

AREAS:

CONTRACT LIMIT OF DISTURBANCE:

BENNETT ROAD = 0.9 ACRES

CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE:

BENNETT ROAD = 0.25 ACRES

NOTES:

1. EROSION AND SEDIMENT CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS LOCATIONS AND STORAGE AREAS WILL NOT BE MEASURED FOR PAYMENT.
2. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF INCREASING THE LIMITS OF DISTURBANCE TO THE PROJECT ESTIMATED QUANTITIES.

Scale: 60 0 60 120

No.	Revision	By	Date
1	Revise Areas	DSM	3/19

Designed by: T.Y.LIN INTERNATIONAL

CONSULTANT PROJECT MANAGER: Daniel S. Myers

	By	Date		By	Date
Designed	TSK	1/2019	Checked	TSK	1/2019
Drawn	MJD	1/2019	In Charge of	DSM	1/2019

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood, IV

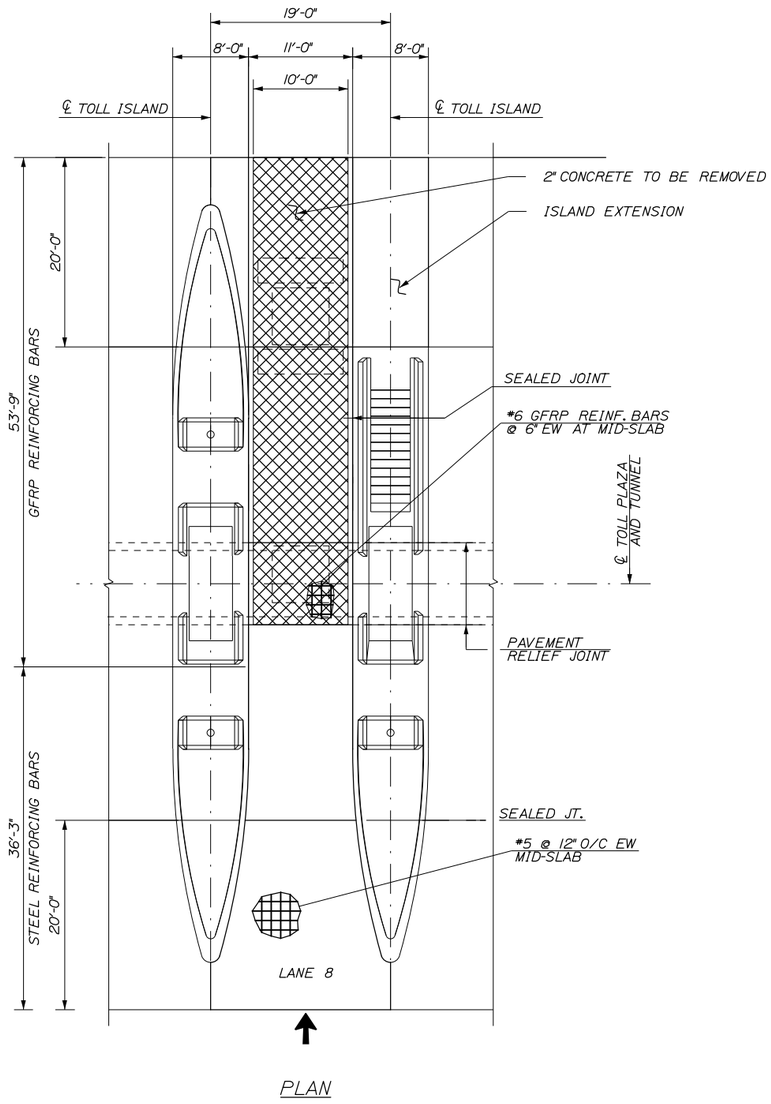
NORTHERN BRIDGE REPAIRS & BENNETT ROAD EMERGENCY VEHICLE RAMPS

BENNETT ROAD EVR (MILE 68.6) LIMIT OF DISTURBANCE

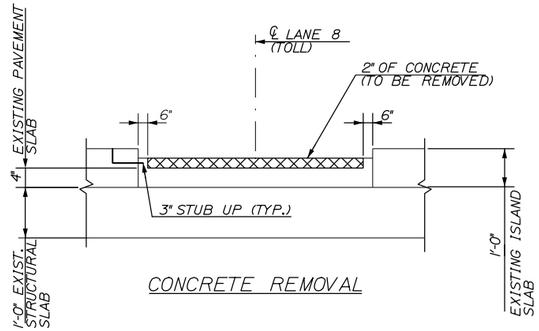
SHEET NUMBER: EVR-08

CONTRACT:2019.11

Filename: ...\MSTA\016A_LODPlan_Bennett.dgn



PLAN



CONCRETE REMOVAL

GENERAL NOTES:

1. SELF LEVELING ELASTOMERIC SEALANT SHALL BE SIKA FLEX 1A OR AN APPROVED EQUAL.
2. A 2" DEEP, LONGITUDINAL SAW CUT SHALL BE MADE PRIOR TO ANY CONCRETE REMOVAL
3. GFRP REINFORCING IS AT A DEPTH OF 3".
4. LOOP LEAD STUB UPS SHALL BE AVOIDED DURING DEMOLITION. ANY DAMAGE TO STUB UPS SHALL BE REPAIRED BY CONTRACTOR.

CONCRETE NOTES:

1. CONCRETE SHALL BE MTA CLASS AAA DECK WITH 5 LBS OF SYNTHETIC FIBER PER CUBIC YARD.
2. CONCRETE SHALL BE PLACED TO EXISTING GRADES.
3. CONTRACTOR SHALL USE A STRAIGHT CEMENT SLURRY AS A BONDING AGENT. THE BONDING AGENT WILL NOT BE ALLOWED TO DRY BEFORE PLACING OF CONCRETE AND SHALL NOT BE PLACE ON THE SLAB TO A DISTANCE GREATER THAN 10 FEET BEFORE CONCRETE IS PLACED.
4. CONTRATOR SHALL SUBMIT THEIR CONCRETE PLACEMENT PROCEDURES FOR REVIEW AND APPROVAL TO THE DESIGNER AT LEAST ONE (1) WEEK PRIOR TO PLACEMENT.

Date:3/15/2019

Filename: 001_NG Demo.dgn

Scale: NTS

No.	Revision	By	Date
1	ADDENDUM NO. 2	MHP	3/19

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	02/19	Checked	RBM	02/19
Drawn	MHP	02/19	In Charge of	RAL	02/19

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

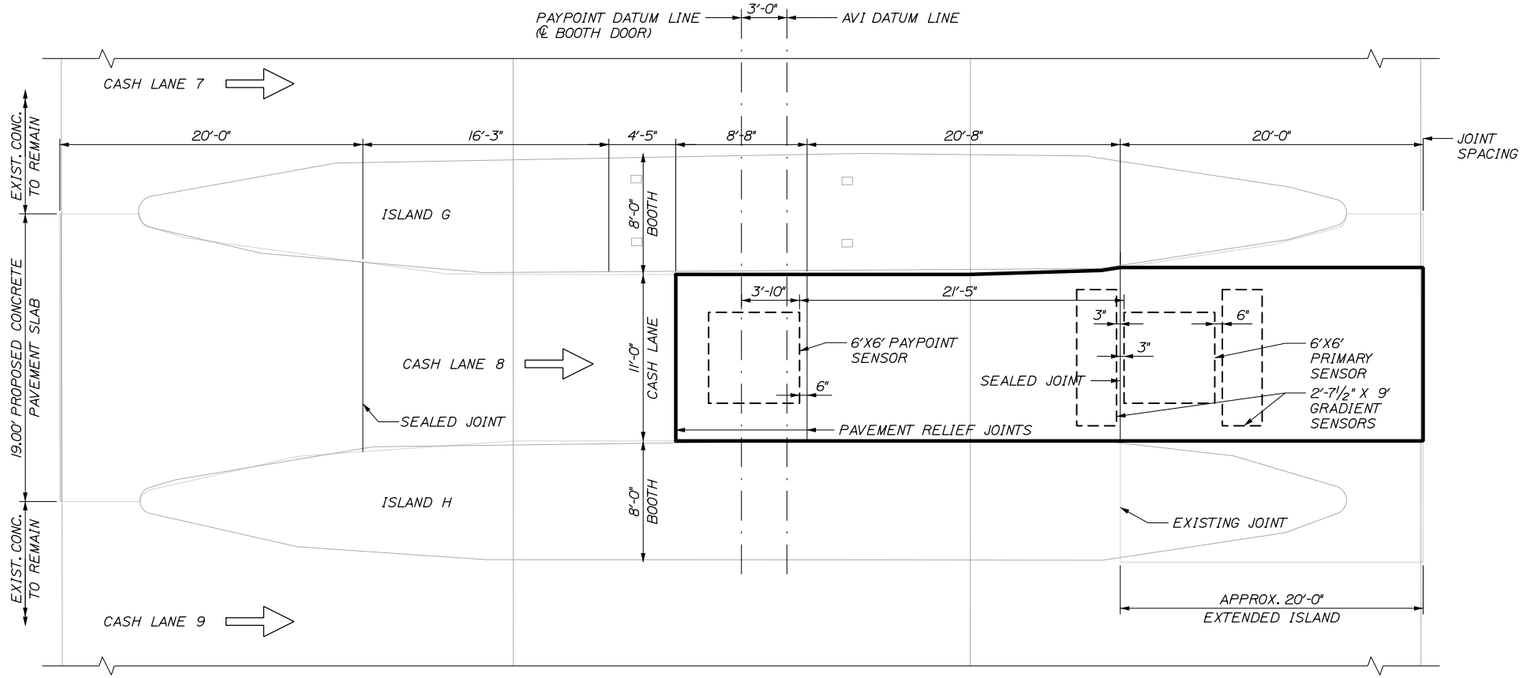
MTA PROJECT MANAGER: William Yates

NEW GLOUCESTER CASH LANE 8 REHABILITATION

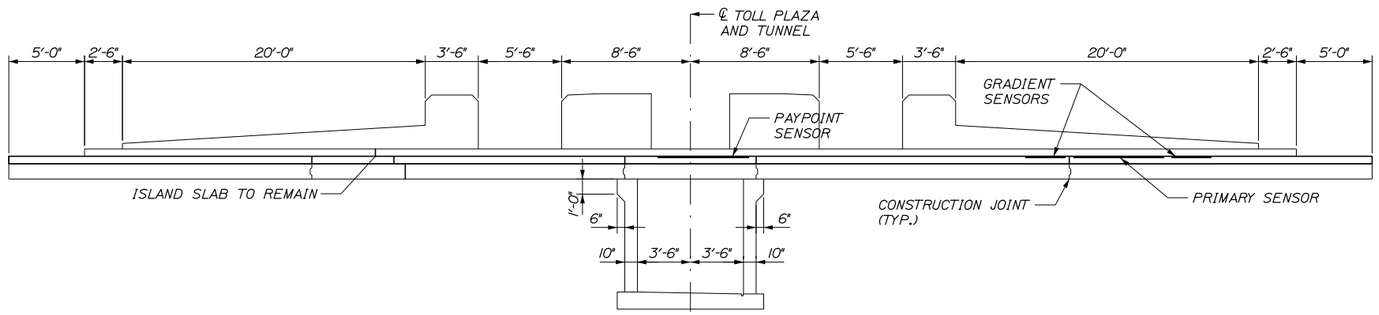
DEMO PAVEMENT PLAN

SHEET NUMBER: S-01

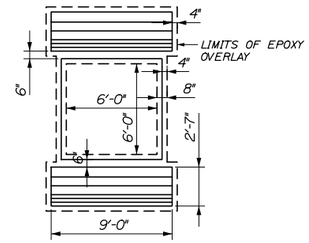
CONTRACT:2019.11



PLAN VIEW

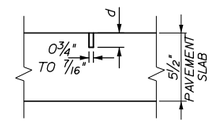


PROFILE VIEW



LOOP DETAIL AND EPOXY OVERLAY

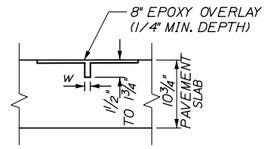
NTS



d = 1 1/4" TO 1 1/2" FOR SINGLE LEAD CUT
2 1/2" FOR MULTIPLE LEAD CUT
3" AT PITCH POCKET ENTRY

LEAD-IN CUT

NTS



SENSOR CUT

NTS

w = 1/2" FOR GRADIENT ENDS
3/8" FOR ALL OTHER CUTS

NOTES:
1. TRANSCORE SHALL INJECT DURANT LOOP SEALANT INTO SAW CUT BEFORE INSTALLING SENSORS AND LEADS. TRANSCORE SHALL PROVIDE EQUIPMENT, TEMPLATES AND EPOXY. SEE SPECIAL PROVISIONS SECTION 655 FOR MORE INFORMATION.

2. ALL LAYOUT FOR PRIMARY AND GRADIENT SENSORS SHALL BE VERIFIED BY TRANSCORE PRIOR TO CUTTING CONCRETE.

3. 1/4" DEPRESSION FOR EPOXY OVERLAY SHALL BE COMPLETED AFTER SAW CUTTING CONCRETE FOR LOOPS.

4. MEASUREMENT FOR ITEM 515.23 EPOXY OVERLAY SHALL BE 11.5 SY PER LANE.

5. LOOP LAYOUT IS TYPICAL FOR ALL ENTRY LANES.

6. ALL ROADWAY CONCRETE FOR LANE 8, NEW AND OLD, WILL BE SEALED WITH A CLEAR PROTECTIVE COATING, ITEM *515.202. ⚠

Date:3/15/2019

Filename: 002_NG Rehab.dgn

Scale: 5 0 5 10
1" = 5'

No.	Revision	By	Date
⚠	ADDENDUM NO. 2	MHP	3/19

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	02/19	Checked	RBM	02/19
Drawn	MHP	02/19	In Charge of	RAL	02/19

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

NEW GLOUCESTER CASH LANE 8 REHABILITATION

REHAB PAVEMENT SLAB

CONTRACT:2019.11

SHEET NUMBER: S-02

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