

MAINE TURNPIKE AUTHORITY

ADDENDUM NO. 2

CONTRACT 2018.09

BRIDGE REPAIRS

RUNNING HILL ROAD UNDERPASS (MILE 45.4)

BLACKSTRAP ROAD UNDERPASS (MILE 58.3)

WEYMOUTH ROAD UNDERPASS (MILE 66.2)

SUPERSTRUCTURE REPLACEMENT

DUTTON HILL ROAD UNDERPASS (MILE 59.9)

**General:**

The Authority has revised the method of measurement and basis of payment for Item 652.451 – Automated Trailer Mounted Speed Limit Sign. See the attached revised special provision for additional information.

The Authority has revised the estimated quantity of Item 652.46 – Temporary Portable Rumble Strip.

**Make the following changes to the bid documents:**

In the Contract Plans, **REMOVE** sheet 3 and **REPLACE** with the attached revised sheet 3.

In the Contract Documents, Proposal, **REMOVE** pages P - 3 through P - 13 and **REPLACE** with the attached revised pages P - 3 through P - 13.

In the Contract Documents, Part 2 - Special Provisions, **REMOVE** Special Provision Section 652 – Maintenance of Traffic (Automated Speed Limit Sign) – SP-115 through SP 123 and **REPLACE** with the attached revised Special Provision Section 652 – Maintenance of Traffic (Automated Speed Limit Sign) – SP-115 through SP 123.

**Questions:**

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

**Question 1:** With the release of 57-page Addendum #1 would the Authority be opposed to changing the bid date to Thursday the 21st?

**Response:** *The bid opening shall remain at 11:00 a.m., prevailing time as determined by the Authority on December 19, 2017, as currently required in the Contract Documents. This bid opening date is necessary to allow the Authority to present to the Board on December 21<sup>st</sup>.*

Question 2: How are the concrete deck ends and curb at Weymouth Road paid?

Response: As shown in the attached revised Contract Plans Sheet, the concrete deck ends and concrete curbs shall be paid as Items 502.26 and 502.49, respectively. The attached Proposal sheets have also been revised to include these items.

**Attachments**

- Contract Plans Sheet 3 (1 pages)
- Proposal Sheets P-3 through P-13 (11 pages)
- Special Provision 652 – Maintenance of Traffic (Automated Speed Limit Sign) (6 pages)

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

The total number of pages included with this addendum is twenty (20).

All bidders are requested to acknowledge the receipt of the Addendum No. 2 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

December 15, 2017

Very truly yours,

MAINE TURNPIKE AUTHORITY

\_\_\_\_\_  
Purchasing Manager  
Maine Turnpike Authority

Date: 12/15/2017

Filename: ... \BRIDGE\MSTA\003\_gnty\_01.dgn

ESTIMATED QUANTITIES						
ITEM NO.	DESCRIPTION	UNIT	Running Hill Road	Blackstrap Road	Dutton Hill Road	Weymouth Road
202.10	Removing Existing Superstructure - Property of Contractor	LS			1	1
202.17	Removing Existing Structural Concrete (Dutton Hill Road)	LS			1	1
202.17	Removing Existing Structural Concrete (Weymouth Road)	LS			1	1
202.202	Removing Pavement Surface	SY	1,225	810		500
202.203	Pavement Butt Joints	SY		190	350	140
203.20	Common Excavation	CY			2,050	930
203.21	Rock Excavation	CY			1,200	1,200
203.24	Common Borrow	CY			1,500	44
203.25	Granular Borrow	CY			190	190
304.10	Aggregate Subbase Course - Gravel	CY			1,550	1,200
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	TON			36	60
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	TON	5		2	7
403.210	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	TON	180	260	360	210
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base Course)	TON			450	300
409.15	Bituminous Tack Coat - Applied	GAL	87	125	120	75
411.10	Untreated Aggregate Surface Course, Truck Measure	CY			2	2
419.30	Sawing Bituminous Pavement	LF			650	1,290
502.21	Structural Concrete, Abutments and Retaining Walls	CY			49	23
502.23	Structural Concrete Piers	CY			15	15
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (Dutton Hill Road)	LS			1	1
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (Weymouth Road)	LS			1	1
502.49	Structural Concrete Curbs and Sidewalks (Dutton Hill Road)	LS			1	1
502.49	Structural Concrete Curbs and Sidewalks (Weymouth Road)	LS			1	1
502.701	Bridge Drain Gate Modification	EA		4		4
502.701	Bridge Drain Gate Modification (Running Hill Road)	EA	1			1
502.91	Sealing Deck Construction Joints	LF		285		285
503.12	Reinforcing Steel, Fabricated and Delivered	LB			440	440
503.13	Reinforcing Steel, Placing	LB			440	440
503.14	Epoxy-Coated Reinforcing Steel, Fabricated and Delivered	LB			70,000	7,400
503.15	Epoxy-Coated Reinforcing Steel, Placing	LB			70,000	7,400
504.70	Structural Steel Fabricated and Delivered (Dutton Hill Road)	LS			1	1
504.70	Structural Steel Fabricated and Delivered (Weymouth Road)	LS			1	1
504.71	Structural Steel Erection (Dutton Hill Road)	LS			1	1
504.71	Structural Steel Erection (Weymouth Road)	LS			1	1
505.08	Shear Connectors	EA			1	1
506.9102	Zinc Rich Coating System (Shop Applied)	LS			1	1
506.9103	Zinc Rich Coating System (Field Applied)	LS	1		1	1
507.0821	Steel Bridge Railing, 3 Bar	LS			1	1
507.0928	Aluminum Bridge Rail - 3 Bar Post Remove and Reset	EA	1			1
507.095	Aluminum Bridge Railing - Splice Retrofit	EA			3	3
508.14	High Performance Waterproofing Membrane (Running Hill Road)	LS	1			1
508.14	High Performance Waterproofing Membrane (Blackstrap Road)	LS		1		1
508.14	High Performance Waterproofing Membrane (Dutton Hill Road)	LS			1	1
508.14	High Performance Waterproofing Membrane (Weymouth Road)	LS			1	1
508.15	Membrane Waterproofing (Dutton Hill Road)	LS			1	1
508.15	Membrane Waterproofing (Weymouth Road)	LS			1	1
509.201	Culvert Sliplining	LF			67	67
514.06	Curing Box For Concrete Cylinders	EA			1	2
515.201	Pigmented Protective Coating for Concrete Surfaces	SY	605	545	350	350
515.202	Clear Protective Coating for Concrete Surfaces	SY	225	315	330	150
518.10	Abutment Repairs	SF	255	80	10	40
518.20	Pier Repairs	SF	10	355	95	510
518.391	Repairing Granite Curb Joint and Bedding Mortar	LF	22	220	50	292
518.4	Epoxy Injection Crack Repair	LF	64	24		88
518.80	Partial Depth Concrete Deck Repairs	SF	845	710		225
520.221	Expansion Joint Modification	EA		2		2
520.23	Asphaltic Plug Joint	LF	53		52	46
520.234	Expansion Device - Silicone Coated and Pre-compressed Seal	LF			18	18
520.2341	Bridge Joint Replacement - Silicone Coated and Pre-compressed Seal	LF	63			63
523.1201	Reset Steel Bearings	EA		8		8
523.52	Bearing Installation	EA			25	20
523.521	Bearing Removal	EA			20	20
523.5402	Laminated Elastomeric Bearings, Expansion	EA			10	10
523.54021	PTFE Elastomeric Bearings, Expansion	EA			15	15
524.40	Protective Shielding - Steel Girders	SY			870	870
524.7212	Jacking Existing Superstructure (Blackstrap Road)	LS		1		1
524.7212	Jacking Existing Superstructure (Weymouth Road)	LS			1	1
526.306	Temporary Concrete Barrier, Type I - Supplied by Authority	LS			1	1
526.34	Permanent Concrete Transition Barrier	EA			4	4
527.341	Work Zone Crash Cushions - TL-3	UNIT			6	6
603.159	12 inch Culvert Pipe Option III	LF			36	5
603.179	18 inch Culvert Pipe Option III	LF			190	190
606.1721	Bridge Transition - Type I	EA			4	4
606.1728	W-Beam to 3-Bar Bridge Rail Transition	EA			4	4

ESTIMATED QUANTITIES						
ITEM NO.	DESCRIPTION	UNIT	Running Hill Road	Blackstrap Road	Dutton Hill Road	Weymouth Road
606.241	Guardrail Type 3d - 15 ft. Radius and Less	LF			50	50
606.242	Guardrail Type 3d - over 15 feet Radius	LF			225	225
606.244	Guardrail Type 3d - Single Rail, 7 foot Posts	LF			1,350	962.5
606.265	Terminal End - Single Rail - Galvanized Steel	EA			3	3
606.278	Terminal End - Anchored End	EA			1	1
606.353	Reflectorized Flexible Guardrail Marker	EA			7	11
606.78	Low Volume Guardrail End - Type 3	EA			2	2
606.79	Guardrail 350 Flared Terminal	EA			1	5
606.81	Tangent Guardrail Terminal - Energy Absorbing	EA			1	1
607.17	Chain Link Fence - 6 Foot	LF			510	500
607.23	Chain Link Fence Gate	EA			3	2
607.2325	Pipe Entry Gate	EA			2	2
607.32	Bracing Assembly Type I - Metal Posts	EA			14	12
607.33	Bracing Assembly Type II - Metal Posts	EA			5	6
607.431	Snow Fence	LF			208	208
609.11	Vertical Curb Type I	LF			140	110
610.08	Plain Riprap	CY			230	230
610.18	Stone Ditch Protection	CY			43	43
613.319	Erosion Control Blanket	SY			4,800	1,500
615.07	Loam	CY			710	330
618.1401	Seeding Method Number 2, Plan Quantity	UNIT			60	26
619.1201	Mulch - Plan Quantity	UNIT			60	26
619.1202	Temporary Mulch (Dutton Hill Road)	LS			1	1
619.1202	Temporary Mulch (Weymouth Road)	LS			1	1
620.58	Erosion Control Geotextile	SY			90	120
620.625	Cellular Confinement System	SY			610	610
627.712	White or Yellow Pavement Marking Line	LF	1,060	1,850	670	1,830
627.78	Temporary Pavement Marking Line, White or Yellow	LF		25		25
629.05	Hand Labor, Straight Time	HR	32	32	60	60
631.12	All Purpose Excavator (Including Operator)	HR	40	40	10	10
631.171	Truck - Small (Including Operator)	HR	40	40	20	20
631.36	Foreman	HR	40	40	20	20
<del>639.18</del>	<del>Field Office, Type A</del>	<del>EA</del>				
643.72	Temporary Traffic Signal	LS		1		1
645.272	Regulatory, Warning and Bridge Number Signs, Type I - Supplied by the Authority	EA			14	15
652.30	Flashing Arrow	EA			5	5
652.312	Type III Barricades	EA			4	4
652.33	Drum	EA			700	700
652.34	Cone	EA			200	200
652.35	Construction Signs	SF			4,335	4,335
652.361	Maintenance of Traffic Control Devices	LS			1	1
652.38	Flaggers	HR			140	140
652.41	Portable - Changeable Message Sign	EA			4	4
652.45	Truck Mounted Attenuator	CD			60	60
652.451	Automated Trailer Mounted Speed Limit Sign	CD			60	60
652.46	Temporary Portable Rumble Strip	UNIT			180	180
656.75	Temporary Soil Erosion and Water Pollution Control (Running Hill Road)	LS	1			1
656.75	Temporary Soil Erosion and Water Pollution Control (Blackstrap Road)	LS		1		1
656.50	Baled Hay, in place	EA			15	15
656.632	30 inch Temporary Silt Fence	LF			2,090	2,420
659.10	Mobilization	LS			1	1

\* Quantities are Estimated Only  
 Note: The quantities for the Forest Lake Road access road are included in the Dutton Hill Road quantities above.

Scale: AS NOTED			
No.	Revision	By	Date
1	Bid Addendum No. 1	JBD	12/6/17
2	Bid Addendum No. 2	GME	12/14/17

Designed by:			
CONSULTANT PROJECT MANAGER: T. Bryant			
By	Date	By	Date
Designed	MED 12/15/2017	Checked	GME 12/15/2017
Drawn	DPD 12/15/2017	In Charge of	TSB 12/15/2017

VANASSE HANGEN BRUSTLIN, INC.  
 500 Southborough Dr.  
 Suite 105B  
 South Portland, ME 04106  
 TEL (207) 889-3150  
 FAX (207) 253-5596

## THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph Norwood, IV

MTA CONTRACT 2018.09

### ESTIMATED QUANTITIES

VHB: 55149.01 / 55150.01 SHEET NUMBER: 3  
 CONTRACT: 2018.09 3 OF 152

**SCHEDULE OF BID PRICES  
CONTRACT NO. 2018.09**

**BRIDGE REPAIRS - RUNNING HILL ROAD UNDERPASS - MM 45.40  
BRIDGE REPAIRS - BLACKSTRAP ROAD UNDERPASS - MM 58.30  
SUPERSTRUCTURE REPLACEMENT - DUTTON HILL ROAD UNDERPASS - MM 59.90  
BRIDGE REPAIRS - WEYMOUTH ROAD UNDERPASS - MM 66.20**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
202.10	Removing Existing Superstructure - Property of Contractor	Lump Sum	1				
202.17	Removing Existing Structural Concrete (Dutton Hill Road)	Lump Sum	1				
202.17	Removing Existing Structural Concrete (Weymouth Road)	Lump Sum	1				
202.202	Removing Pavement Surface	Square Yard	2535				
202.203	Pavement Butt Joints	Square Yard	680				
203.20	Common Excavation	Cubic Yard	2980				
203.21	Rock Excavation	Cubic Yard	1200				
203.24	Common Borrow	Cubic Yard	1544				
203.25	Granular Borrow	Cubic Yard	190				
304.10	Aggregate Subbase Course - Gravel	Cubic Yard	2750				
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	Ton	96				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	Ton	7				
403.210	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	Ton	1010				
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base Course)	Ton	750				
409.15	Bituminous Tack Coat - Applied	Gallon	407				
411.10	Untreated Aggregate Surface Course, Truck Measure	Cubic Yard	2				
419.30	Sawing Bituminous Pavement	Linear Foot	1940				
502.21	Structural Concrete, Abutments and Retaining Walls	Cubic Yard	72				
502.23	Structural Concrete Piers	Cubic Yard	15				
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (Dutton Hill Road)	Lump Sum	1				
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (Weymouth Road)	Lump Sum	1				
502.49	Structural Concrete Curbs and Sidewalks (Dutton Hill Road)	Lump Sum	1				
502.49	Structural Concrete Curbs and Sidewalks (Weymouth Road)	Lump Sum	1				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
502.701	Bridge Drain Grate Modification	Each	8				
502.7011	Bridge Drain Grate Modification (Running Hill Road)	Each	1				
502.91	Sealing Deck Construction Joints	Linear Foot	285				
503.12	Reinforcing Steel, Fabricated and Delivered	Pounds	440				
503.13	Reinforcing Steel, Placing	Pounds	440				
503.14	Epoxy-Coated Reinforcing Steel, Fabricated and Delivered	Pounds	77400				
503.15	Epoxy-Coated Reinforcing Steel, Placing	Pounds	77400				
504.70	Structural Steel Fabricated and Delivered (Dutton Hill Road)	Lump Sum	1				
504.70	Structural Steel Fabricated and Delivered (Weymouth Road)	Lump Sum	1				
504.71	Structural Steel Erection (Dutton Hill Road)	Lump Sum	1				
504.71	Structural Steel Erection (Weymouth Road)	Lump Sum	1				
505.08	Shear Connectors	Lump Sum	1				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
506.9102	Zinc Rich Coating System (Shop Applied)	Lump Sum	1				
506.9103	Zinc Rich Coating System (Field Applied)	Lump Sum	1				
507.0821	Steel Bridge Railing, 3 Bar	Lump Sum	1				
507.0928	Aluminum Bridge Rail - 3 Bar Post Remove and Reset	Each	1				
507.095	Aluminum Bridge Railing - Splice Retrofit	Each	3				
508.14	High Performance Waterproofing Membrane (Running Hill Road)	Lump Sum	1				
508.14	High Performance Waterproofing Membrane (Blackstrap Road)	Lump Sum	1				
508.14	High Performance Waterproofing Membrane (Dutton Hill Road)	Lump Sum	1				
508.14	High Performance Waterproofing Membrane (Weymouth Road)	Lump Sum	1				
508.15	Membrane Waterproofing (Dutton Hill Road)	Lump Sum	1				
508.15	Membrane Waterproofing (Weymouth Road)	Lump Sum	1				
509.201	Culvert Sliplining	Linear Foot	67				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
514.06	Curing Box for Concrete Cylinders	Each	2				
515.201	Pigmented Protective Coating for Concrete Surfaces	Square Yard	1850				
515.202	Clear Protective Coating for Concrete Surfaces	Square Yard	1020				
518.10	Abutment Repairs	Square Foot	385				
518.20	Pier Repairs	Square Foot	970				
518.391	Repairing Granite Curb Joint and Bedding Mortar	Linear Foot	292				
518.4	Epoxy Injection Crack Repair	Linear Foot	88				
518.80	Partial Depth Concrete Deck Repairs	Square Foot	1780				
520.2211	Expansion Joint Modification	Each	2				
520.23	Asphaltic Plug Joint	Linear Foot	151				
520.234	Expansion Device - Silicone Coated and Pre-compressed Seal	Linear Foot	18				
520.2341	Bridge Joint Replacement - Silicone Coated and Pre-compressed Seal	Linear Foot	63				

**CARRIED FORWARD:**



Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
523.1201	Reset Steel Bearings	Each	8				
523.52	Bearing Installation	Each	45				
523.521	Bearing Removal	Each	20				
523.5402	Laminated Elastomeric Bearings, Expansion	Each	10				
523.54021	PTFE Elastomeric Bearings, Expansion	Each	15				
524.40	Protective Shielding - Steel Girders	Square Yard	870				
524.7212	Jacking Existing Superstructure (Blackstrap Road)	Lump Sum	1				
524.7212	Jacking Existing Superstructure (Weymouth Road)	Lump Sum	1				
526.306	Temporary Concrete Barrier, Type I - Supplied by Authority	Lump Sum	1				
526.34	Permanent Concrete Transition Barrier	Each	4				
527.341	Work Zone Crash Cushions - TL-3	Unit	6				
603.159	12 inch Culvert Pipe Option III	Linear Foot	41				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
603.179	18 inch Culvert Pipe Option III	Linear Foot	190				
606.1721	Bridge Transition - Type I	Each	4				
606.1728	W-Beam to 3-Bar Bridge Rail Transition	Each	4				
606.241	Guardrail Type 3d - 15 ft. Radius and Less	Linear Foot	50				
606.242	Guardrail Type 3d - over 15 feet Radius	Linear Foot	225				
606.244	Guardrail Type 3d - Single Rail, 7 foot Posts	Linear Foot	2312.5				
606.265	Terminal End - Single Rail - Galvanized Steel	Each	3				
606.278	Terminal End - Anchored End	Each	1				
606.353	Reflectorized Flexible Guardrail Marker	Each	18				
606.78	Low Volume Guardrail End - Type 3	Each	2				
606.79	Guardrail 350 Flared Terminal	Each	6				
606.81	Tangent Guardrail Terminal – Energy Absorbing	Each	1				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
607.17	Chain Link Fence - 6 Foot	Linear Foot	1010				
607.23	Chain Link Fence Gate	Each	5				
607.2325	Pipe Entry Gate	Each	4				
607.32	Bracing Assembly Type I - Metal Posts	Each	26				
607.33	Bracing Assembly Type II - Metal Posts	Each	11				
607.431	Snow Fence	Linear Foot	208				
609.11	Vertical Curb Type 1	Linear Foot	250				
610.08	Plain Riprap	Cubic Yard	230				
610.18	Stone Ditch Protection	Cubic Yard	86				
613.319	Erosion Control Blanket	Square Yard	6300				
615.07	Loam	Cubic Yard	1040				
618.1401	Seeding Method Number 2, Plan Quantity	Unit	86				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
619.1201	Mulch - Plan Quantity	Unit	86				
619.1202	Temporary Mulch (Dutton Hill Road)	Lump Sum	1				
619.1202	Temporary Mulch (Weymouth Road)	Lump Sum	1				
620.58	Erosion Control Geotextile	Square Yard	210				
620.625	Cellular Confinement System	Square Yard	610				
627.712	White or Yellow Pavement Marking Line	Linear Foot	5410				
627.78	Temporary Pavement Marking Line, White or Yellow	Linear Foot	25				
629.05	Hand Labor, Straight Time	Hour	184				
631.12	All Purpose Excavator (Including Operator)	Hour	100				
631.171	Truck - Small (Including Operator)	Hour	120				
631.36	Foreman	Hour	120				
643.72	Temporary Traffic Signal	Lump Sum	1				

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
645.272	Regulatory, Warning and Bridge Number Signs, Type I - Supplied by the Authority	Each	29				
652.30	Flashing Arrow	Each	5				
652.312	Type III Barricades	Each	4				
652.33	Drum	Each	700				
652.34	Cone	Each	200				
652.35	Construction Signs	Square Foot	4335				
652.361	Maintenance of Traffic Control Devices	Lump Sum	1				
652.38	Flaggers	Hour	140				
652.41	Portable - Changeable Message Sign	Each	4				
652.45	Truck Mounted Attenuator	Cal. Day	60				
				200	00	12000	00
652.451	Automated Trailer Mounted Speed Limit Sign	Cal. Day	60				
				75	00	4500	00
652.46	Temporary Portable Rumble Strip	Unit	180				
				75	00	13500	00

**CARRIED FORWARD:**

Item No	Item Description	Units	Approx. Quantities	Unit Prices in Numbers		Bid Amount in Numbers	
				Dollars	Cents	Dollars	Cents
<b>BROUGHT FORWARD:</b>							
656.75	Temporary Soil Erosion and Water Pollution Control (Running Hill Road)	Lump Sum	1				
656.75	Temporary Soil Erosion and Water Pollution Control (Blackstrap Road)	Lump Sum	1				
656.50	Baled Hay, in place	Each	30				
656.632	30 inch Temporary Silt Fence	Linear Foot	4510				
659.10	Mobilization	Lump Sum	1				
<b>TOTAL:</b>							

SPECIAL PROVISIONSECTION 652MAINTENANCE 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. 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 MaterialsAutomated 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, a construction sign stating “Work Zone Speed Limit When Flashing” 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.

The regulatory sign should have changeable speed limit numbers.

“Work Zone” construction signs shall be mounted on the trailer unit above and below the regulatory speed limit sign. (see Appendix). The “When Flashing” construction sign shall be added to the trailer.

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 REQUIREMENTS652.3.2 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 during the operation of the flashing lights. These signs shall be immediately uncovered when the use of the flashing lights is discontinued.

Automated Trailer Mounted Speed Limit Signs shall be used only during the Contractor's actual work hours, unless specifically authorized by the Engineer.

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.

Automated Trailer Mounted Speed Limit Signs shall be located as shown on the plans.

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, as approved by the Resident, and shall include the Trailer, Radar Speed Limit Sign, flashing beacon amber lights, regulatory speed limit sign, “Work Zone Speed Limit When Flashing” construction sign, fuel, necessary maintenance, and all checking of Radar Speed Limit Signs by manufacturer. Also included are all project moves including the transporting and delivery of the unit.

652.8 Basis of Payment

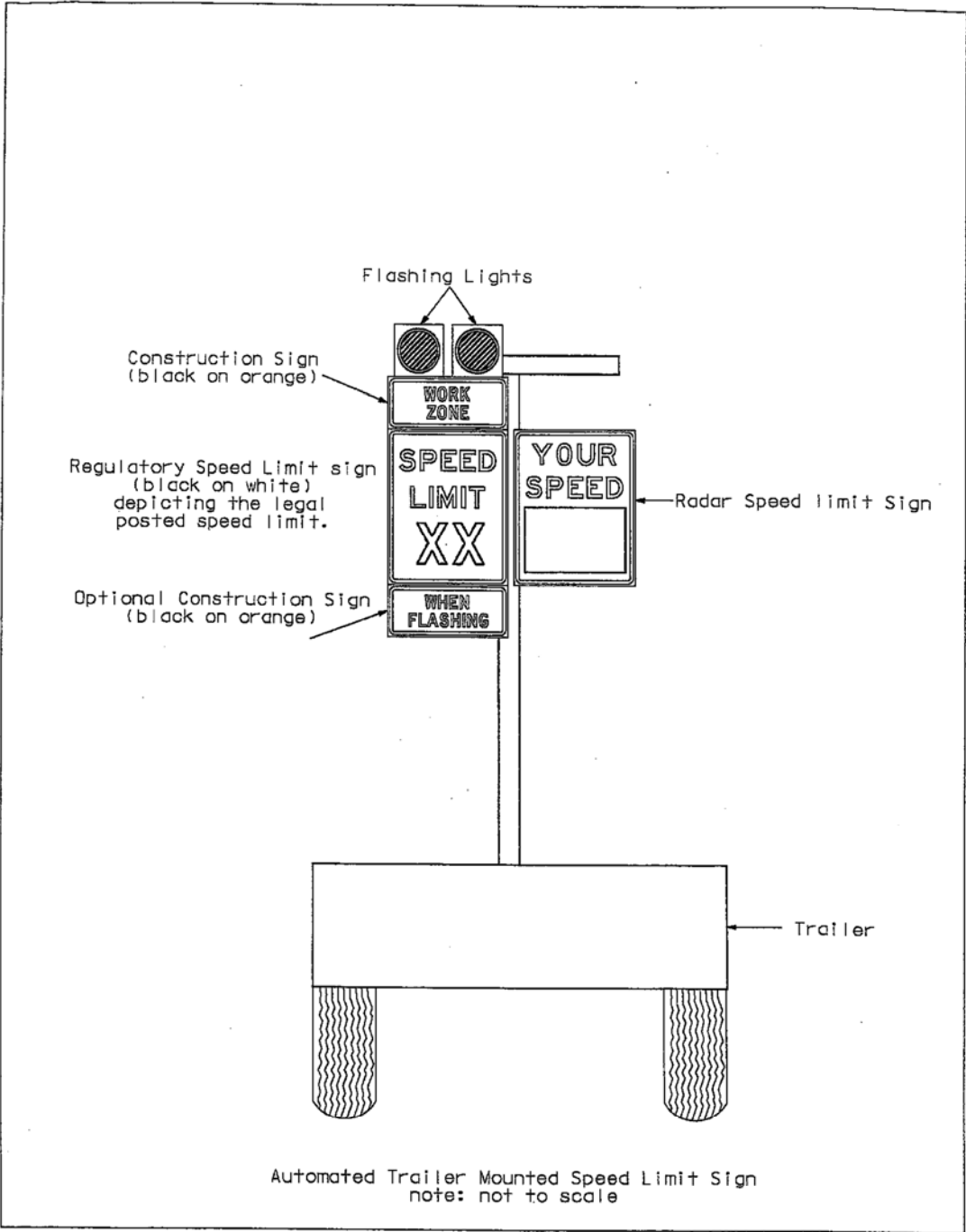
The Automated Trailer Mounted Speed Limit Sign(s) will be paid for at the Contract unit price per calendar day. This price shall include all costs associated with the use of the Automated Trailer Mounted Speed Limit Sign.

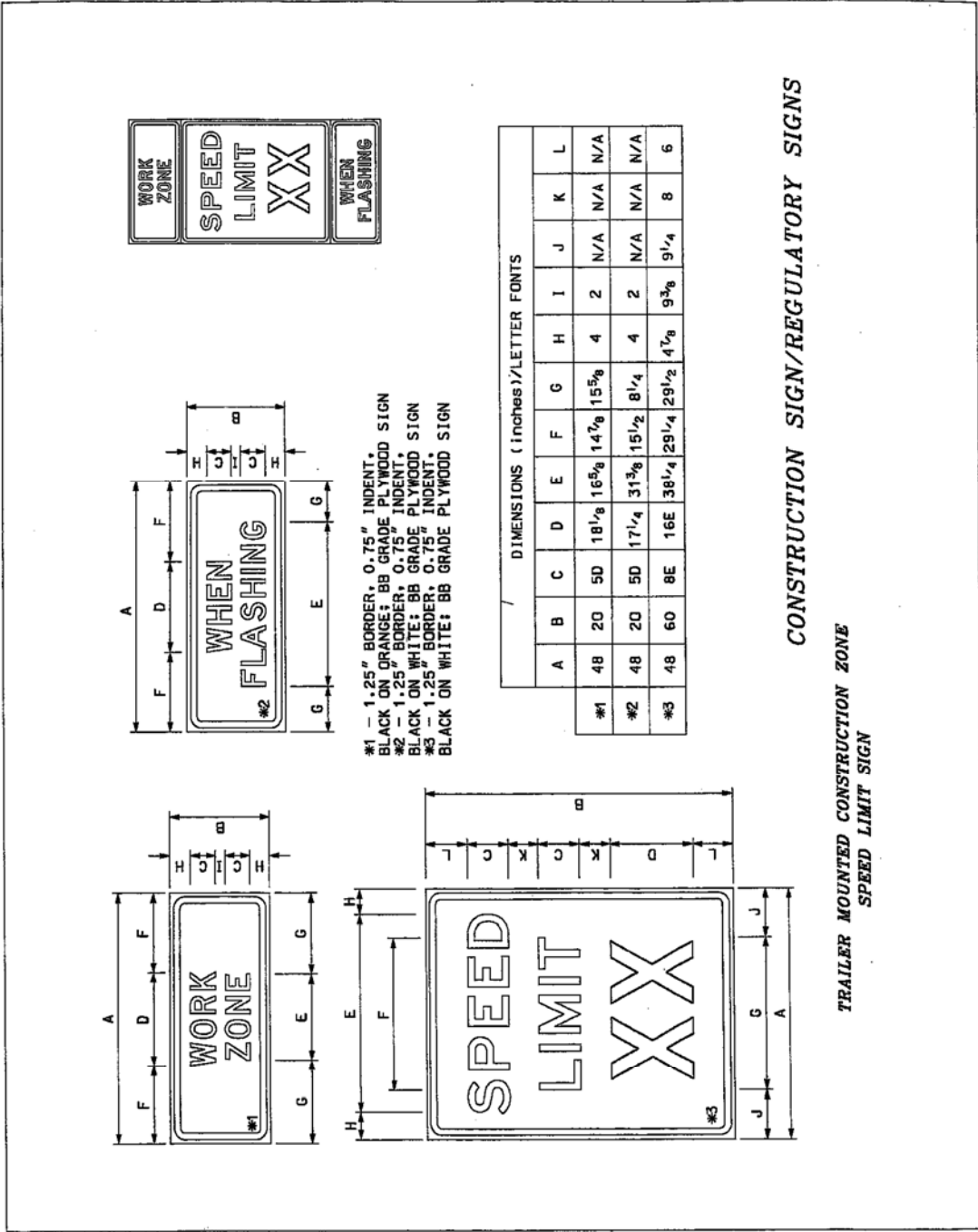
Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.451      Automated Trailer Mounted Speed Limit Sign	Calendar Day

# Appendix B

## Automated Trailer Mounted Speed Limit Sign





CONSTRUCTION SIGN/REGULATORY SIGNS

TRAILER MOUNTED CONSTRUCTION ZONE SPEED LIMIT SIGN