

Janet T. Mills GOVERNOR STATE OF MAINE Department of Transportation 16 State House Station Augusta, Maine 04333-0016

> Bruce A. Van Note COMMISSIONER

February 26, 2025

Subject: Pavement Milling, Ultrathin Bonded Wearing Course, Hot Mix Asphalt Overlay WIN: 027498.00 Location: Benton, Fairfield, Oakland, Sidney, Augusta & Waterville **Amendment No. 1**

Dear Sir/Ms.:

The following questions have been received:

Question: On page 162 of the 403 specification the WIN number is 26884.00. The contract bid book states WIN 27498.00. Which WIN is correct?

Response: The WIN was in fact incorrect. The correct WIN is 027498.00, which is corrected in the attached new 403.

Question: Referring to Job 27184.20 having a completion date in the month of December and meeting the seasonal limitations for Ultra-Thin Bonded Wearing Course at night for this contract, it appears there may be a contractual conflict to meet the project requirements. Understanding the contract, page 109 refers to cooperation between contractors, however based upon others maintenance of traffic, if access cannot be provided is the department anticipating this area to be completed in 2026?

Response: The Department is aware of the bridge work in this area. The Contractor is to work cooperatively with the Bridge Contractor to establish a reasonable schedule and limits that will not damage the new pavement surface from ongoing bridge work. The completion of this contract will not extend into 2026.

Question: If access cannot be provided how close will the department allow operations to get to the ingress and egress of the crossovers?

Response: The Contractor shall coordinate and establish limits with the Bridge Contractor so that the new paved surface is not damaged from ongoing bridge work.

Attached is a new schedule of items adding Item 803.01 Test Pits. The test pit locations will be determined by the Resident.

Also attached is an updated 527 specification, requiring the Truck Mounted Attenuator to be equipped with green strobes and a connected arrow board.

Consider these changes and information prior to submitting your bid on March 5, 2025.

Sincerely,

Keye Whichagell

George M. A. Macdougall P.E. Contracts & Specifications Engineer

Maine Department of Transportation

Project(s): 027498.00

Proposal Schedule of Items

Alt Mbr ID:

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SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Proposal ID: 027498.00

Proposal	Item ID	Approximate	Unit Price	Bid Amount
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents
0010	202.2023 REMOVING PAVEMENT SURFACE - MEDIUM CUT DRUM	390,000.000 SY	<u> </u>	!
0020	202.205 RUMBLE STRIPS - SHOULDER	127,000.000 LF	!	<u> </u>
0030	403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	2,300.000 T	<u> </u>	!
0040	403.2111 9.5 MM POLYMER MODIFIED HMA (SHIM)	1,000.000 T	<u> </u>	!
0050	409.15 BITUMINOUS TACK COAT - APPLIED	3,000.000 G	<u> </u>	!
0060	410.151 EMULSIFIED ASPHALT SEALCOAT, APPLIED	130,000.000 SY	<u> </u>	!
0070	424.22 ASPHALT RUBBER CRACK SEALER TYPE 2, APPLIED	85,000.000 LB	<u> </u>	!
0080	424.3333 LOW MODULUS JOINT SEALER, APPLIED	7,000.000 LF	!	!
0090	424.38 CRACK REPAIR - HOT POUR MASTIC	55,000.000 LB	!	<u> </u>
0100	462.301 POLYMER MODIFIED ULTRATHIN BONDED WEARING COURSE	360,000.000 SY	!	!
0110	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	51.000 EA	<u> </u>	!

Maine Department of Transportation

Proposal Schedule of Items

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 Proposal ID:
 027498.00
 Project(s):
 027498.00

 SECTION:
 1
 HIGHWAY ITEMS
 027498.00

Alt Mbr ID:

Alt Set ID:

Proposal	ltem ID	Approximate	Unit Price	Bid Amount	
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents	
0120	606.178 GUARDRAIL BEAM	500.000 LF	!	<u> </u>	
0130	606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	5.000 EA	<u> </u>	<u>.</u>	
0140	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	150.000 EA	<u> </u>	!	
0150	606.362 GUARDRAIL ADJUSTED	7,500.000 LF	<u> </u>	!	
0160	606.363 GUARDRAIL REMOVE AND DISPOSE	125.000 LF	<u> </u>	!	
0170	606.367 REPLACE UNUSABLE EXISTING GUARDRAIL POSTS	15.000 EA	!	!	
0180	606.93 SACRIFICIAL CRASH CUSHION	2.000 EA	!	!	
0190	618.14 SEEDING METHOD NUMBER 2	700.000 UN	!	!	
0200	619.12 MULCH	700.000 UN	!	!	
0210	627.18 12 " SOLID WHITE PAVEMENT MARKING	10,000.000 LF	!	!	
0220	627.30 GROOVING FOR PAVEMENT MARKING	134,000.000 SF	<u> </u>	!	
0230	627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	12,000.000 LF	<u> </u>	<u> </u>	

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Project(s): 027498.00

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SECTION: 1 HIGHWAY ITEMS

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Proposal	ltem ID	Approximate	Unit Price	Bid Amount	
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents	
0240	627.745 6" WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED)	260,000.000 LF	!	!	
0250	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	330,000.000 LF	<u> </u>	!	
0260	627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	350,000.000 LF	<u> </u>	!	
0270	629.05 HAND LABOR, STRAIGHT TIME	75.000 HR	<u> </u>	!	
0280	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	200.000 HR	<u> </u>	!	
0290	631.13 BULLDOZER (INCLUDING OPERATOR)	100.000 HR	!	!	
0300	631.133 SKID STEER (INCLUDING OPERATOR)	75.000 HR	;	!	
0310	631.14 GRADER (INCLUDING OPERATOR)	50.000 HR	<u> </u>	<u> </u>	
0320	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	400.000 HR	<u> </u>	!	
0330	631.212 SMALL PAVEMENT GRINDER (INCLUDING OPERATOR)	50.000 HR	!	!	
0340	631.22 FRONT END LOADER (INCLUDING OPERATOR)	50.000 HR	<u> </u>	<u> </u>	

Maine Department of Transportation

Proposal Schedule of Items

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 Proposal ID: 027498.00
 Project(s): 027498.00

 SECTION: 1
 HIGHWAY ITEMS

 Alt Set ID:
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Proposal	Item ID Approximate Unit Price		Unit Price	Bid Amount
Number	Description	Quantity and Units	Dollars Cents	Dollars Cents
0350	639.18 FIELD OFFICE TYPE A	1.000 EA	l	!
0360	643.87 WEIGH-IN-MOTION SYSTEM	1.000 EA	<u> </u>	!
0370	652.30 FLASHING ARROW BOARD	5.000 EA	<u> </u>	!
0380	652.33 DRUM	200.000 EA	<u> </u>	!
0390	652.34 CONE	1,300.000 EA	<u> </u>	!
0400	652.35 CONSTRUCTION SIGNS	4,000.000 SF	<u> </u>	!
0410	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	160.000 CD	<u> </u>	!
0420	652.41 PORTABLE CHANGEABLE MESSAGE SIGN	5.000 EA	<u> </u>	!
0430	652.441 TYPE 1 SMART WORK ZONE SYSTEM	2.000 EA	!	<u> </u>
0440	652.442 TYPE 2 SMART WORK ZONE SYSTEM	1.000 EA	l	<u> </u>
0450	652.45 AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN	4.000 EA	<u> </u>	!
0460	652.46 SEQUENTIAL FLASHING WARNING LIGHTS	40.000 EA	<u> </u>	<u> </u>

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SECTION: 1 HIGHWAY ITEMS

Alt Set ID:

Proposal ID: 027498.00

Proposal Line	Item ID	Approximate Quantity and Units	Unit Price	Bid Amount	
Number	Description		Dollars Cents	Dollars Cents	
0470	652.47 TEMPORARY PORTABLE RUMBLE STRIP	8.000 GP	!	!	
0480	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		!	
0490	659.10 MOBILIZATION	LUMP SUM	LUMP SUM	!	
0500	801.03 TEST PITS	6.000 EA	<u> </u>	!	
	Section: 1		Total:		
			Total Bid:	<u> </u>	

SPECIAL PROVISION						
SECTION 403						
		НОТ	MIX ASPHA	LT		
Desc. Of	Grad	Item	Total	No. Of	Comp. Notes	
Course	Design.	Number	Thick	Layers		
		³ / ₄ " Mill	& UTBWC Ov	verlay		
	<u>Travel L</u>	ane, Passing	Lane & Shoul	ders (As In	<u>idicated)</u>	
Wearing	Type C	462.301	3/4"	1	2,9,24,25,26,43	
		<u>1 ½" Mill</u>	& UTBWC C	<u>)verlay</u>		
	<u>T</u>	Travel Lane (A	As Indicated o	r Directed	<u>)</u>	
Wearing	Type C	462.301	3/4"	1	2,9,24,25,26,43,52	
Shim	9.5 mm	403.2111	variable	1/more	2,4,7,20,27,30,43,52	
	<u>1 ½</u>	2" Mill & HN	<u> 1A Overlay - I</u>	Bridge Dec	ks	
	<u>Travel L</u>	ane, Passing	Lane & Shoul	ders (As In	<u>idicated)</u>	
Wearing	12.5 mm	403.2081	1 1/2"	1	2,5,7,23,25,26,43	
	3/4"	Mill & UTBV	WC Overlay -	Bridge Dee	<u>cks</u>	
(Webb Road Bridge)						
Travel Lane, Passing Lane & Shoulders (As Indicated)						
Wearing	Type C	462.301	3/4"	1	2,9,24,25,26,43	
<u>1 1/2" Mill & HMA Overlay - Shoulders (As Indicated or Directed)</u>						
Wearing	12.5 mm	403.2081	1 1/2"	1	2,4,7,25,26,30,31,33	
Variable Depth Spot Shims (As Indicated or Directed)						
Shim	9.5 mm	403.2111	variable	1/more	2,4,7,20,27,30	

COMPLEMENTARY NOTES

- 2. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets <u>PG 70E-28</u> grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated either at the asphalt source terminal with the required dose rate on the delivery documentation, or at the hot mix asphalt plant utilizing a system integrated with the plants controls that will introduce a minimum 0.50 percent anti-strip by weight of asphalt binder used unless a rate is otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the PG 70E-28 requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.
- 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 <u>65 gyrations</u>.
- 5. The aggregate qualities shall meet the design traffic level of >10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at <u>65 gyrations</u>.
- 7. Section 106.6 Acceptance, (1) **Method A** as specified Section 401.20 Quality Assurance Methods A and C.
- 9. Material will be tested in accordance with Special Provision 462 Gap-Graded HMA Ultra-Thin Bonded Wearing Course.

- 20. The combined aggregate gradation required for this item shall be classified as a 9.5mm Thin Lift Mixture (TLM) mixture, using the Aggregate Gradation Control Points as defined in 703.09.
- 23. The mixture shall meet the minimum requirements of Special Provision 401 HMA Hamburg Wheel Tracker Specification. The Department shall collect 4 additional boxes of HMA on the first day of production and may collect additional material as deemed appropriate.
- 24. See Special Provision 462 Ultra Thin Bonded Wearing Course for project specifics.
- 25. See Special Provision 401 HMA with Fine Micro-Deval Requirement for project specifics.
- 26. The use of a Material Transfer Vehicle (MTV) shall be required on this layer. See Special Provision 401 Material Transfer Vehicle for specifics.
- 27. Spot Shims greater than 500 feet in length shall require the use of a Material Transfer Vehicle (MTV). See Special Provision 401 Material Transfer Vehicle for specifics.
- 30. The incentive/disincentive provisions for density shall not apply. Rollers shall meet the requirements of this special provision. The use of an oscillating steel roller shall be required to compact all mixtures pavements placed on <u>bridge decks</u>.
- 31. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a **10 ton** vibratory, **12 ton** pneumatic, and a **10 ton** finish roller for roadway work. A **Quality Control Technician (QCT)** shall be required for all roadway mixtures placed under this contract. A daily paving report, summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and number of roller passes, shall be recorded and signed by the QCT and presented to the Department's representative by the **end of the working day**.
- 33. Roadway HMA mixtures shall be placed with a track or rubber tire mounted highway class paver with a minimum tractor weight of 28,000 pounds, equipped with a minimum main screed width of eight feet.
- 43. The Department shall profile bridge approaches every 10 feet along the roadway center line and edge of travelways, out to a match point at a minimum of 75 feet from the structure, to determine the approach pavement taper, elevations, and pavement removal or shim requirements. This work shall be accomplished in cooperation with the Contractor by means of conventional surveying equipment or blocking and string lines as cooperatively determined by the Contractor and Department. At minimum, the survey work will be completed 10 days prior to milling and/or paving operations.
- 52. A tack coat of a RS-1, Item #409.15 shall be applied along the longitudinal centerline construction joint, on the horizontal surface immediately adjacent to the construction joint, and in a minimum width of one foot. The rate of application shall be approximately 0.050 to 0.075 G/SY. This application shall be in addition to the normal application of tack coats to the construction joint face and horizontal surfaces prior to placing a new lift.

Tack Coat

A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd². Tack used will be **paid for at the contract unit price** for Item 409.15 Bituminous Tack Coat.

SPECIAL PROVISION <u>SECTION 527</u> ENERGY ABSORBING UNIT (Truck Mounted Attenuator)

<u>Description</u>: This work consists of furnishing, maintaining and deploying a truck mounted attenuator (TMA) and a shadow or barrier truck in accordance with this specification and as directed. A Truck Mounted Attenuator must comply with NCHRP Report 350.

<u>Materials</u>: The energy absorbing system shall be from the Department's Qualified Product List (QPL). The TMA shall be mounted in accordance with the manufactures specifications to a truck with a gross vehicle weight of at least 10,000 pounds.

<u>Installation:</u> The chart below identifies the distance from the work zone or hazard where the TMA shall be deployed. If the work zone is within a marked lane closure, the barrier truck distances shall apply and if the work is mobile, then shadow truck distances shall apply. When used as a barrier, the barrier truck shall be parked in low gear with brakes applied and the front wheels turned away from the work zone and the adjacent traffic lane. For placement details, reference the Manual of Uniform Traffic Control Devices (MUTCD).

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

Note - On Interstate and Control of Access roadways the minimum weight of the truck shall be 24,000 lbs.

On Intestate and Control of Access roadways, the TMA shall be equipped with GREEN flashing strobes and will have a connected arrow board. The connected arrow board criteria shall be as follows:

The connected arrow boards once activated shall transmit a GPS location, connection to the HAAS network and GPS navigation providers.

Activated arrow boards shall transmit the status of the of the arrow panel to the HAAS network, and GPS navigation providers.

Arrow status update a minimum of every 15 minutes, retransmits the location and status of the arrow panel if the TMA moves more than 300 feet.

Once deactivated the unit stops transmitting to the networks.

The Contractor shall provide the specific manufacturer, product specific details of the connected arrow board system for the Department's review and will be made part of the Contractor's Traffic Control Plan.

<u>Method of Measurement: Truck</u> mounted attenuator will be considered incidental to Item 652.36.

<u>Basis of Payment:</u> The accepted quantity of truck mounted attenuator will be paid for at the contract unit price of Item 652.36 which includes furnishing and all costs of attaching, retrofitting and system operation of the truck. Daily maintenance, deployment, moving, storing and of the TMA, including the cost of the truck, shall be considered incidental.

Payment will be made under:

Pay Item		<u>Pay Unit</u>
652.36	Maintenance of Traffic Control Devices	CD

SPECIAL PROVISION SECTION 803 TEST PITS

<u>Description</u>. This work shall consist of excavating test pits for buried site features and cutting of HMA cores to establish pavement depths. Only one test pit payment per specific location will be made.

Test pits will allow for a visual examination of the pavement, gravel and subgrade matrix. The test pit will also allow for samples of underlying gravel to be taken to establish existing material gradation and composition.

HMA cores shall be cut adjacent to the test pit locations, across the passing and travel lanes, spaced every 3' to establish a pavement structure profile.

<u>Method of Measurement</u>. Test Pits will be measured by each unit, complete at each site location.

<u>Basis of Payment</u>. Payment for test pits shall include any cleaning, pavement removal, excavation, backfill, compaction, cutting of cores and HMA replacement in the void made by the core extraction. Locations shall be shown in the bid documents or as directed. HMA replacement for test pits will be paid for by contract items.

Pay Item

Pay Unit

803.01

Each

Test Pits