



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

January 6, 2025
Subject: Mill and Fill
State WIN: 024999.00, 027856.00 &
027874.00
Location: Yarmouth
Amendment No. 1

Dear Sir/Ms.:

CHANGE on page 14 “**NOTICE TO CONTRACTORS**”, the bid opening date in the first paragraph from “**January 8, 2025**” to read “**January 15, 2025**”. Make this change in pen and ink.

The following questions have been received:

Question: Under item 0480 - 643.21 does this include the installation of an FMU device into the controller cabinet? Or should that be a separate line item? (Typically seen as a separate item)

The FMU installation will be required with the current cabinet setup to go online as per specifications.

Response: All items, equipment, labor and incidentals required to create a fully functional system will be considered incidental to the cost of this item.

Question: Special provision section 204 indicates that HMA pavement for road base repairs will be paid under bid item 403.102 Special Areas Mix. The construction notes for WIN 24999.00 (Rt 88) call out item 403.213 as the pay item for road base repair pavement. The construction notes for WIN 27874.00 (Rt 1) call for 403.102 as the pay item for road base repair but they further note under 403.213 that there is a 2" base repair paid as 403.213. Could the department please clarify where items 403.102 and 403.213 will be used?

Response: 24999.00: Items 204.50 and 403.102 will be utilized for unknown gravel areas that may be encountered during milling. **REMOVE** pages forty-eight through fifty-one titled Construction Notes dated November 26, 2024 and **REPLACE** the attached pages titled Construction Notes dated December 26, 2024. Totalling four pages.

27874.00: Item 403.213 will be utilized for the 2" plunge mill in the shoulder areas from 16+00 to 22+50 as listed in the 202.202 Construction Note. This project has 204.50 and 403.102 for unknown areas of gravel that may be encountered during milling.

27856.00: Item 403.213 will be utilized for base HMA at the flush island reconstruction areas.

Question: There is a specification for the Mastic Crack Seal item, 424.22, but there doesn't seem to be a specification in the special provisions for the Mastic item, item 424.38. Will MaineDOT be adding a specification for this item?

Response: The Special Provision for item 424.38 – Crack Repair with Hot Pour Mastic has been added by addendum in response to this RFI

Question: Win: 024999 - Typical Section 1 of 2 & 2 of 2 - Note 2 Is the intent to pave surface mainline and then surface shoulder? This section of road is to be shimmed with a break at the shoulder. 403 Box should density is required in the shoulder.

Response: : It is not the intent of the Department to determine if the shoulders are to be paved at the same time as the travelway, or if they should be paved separately. Common highway class paver set-ups would allow a break at the edge of travelway if shoulders were paved at the same time as the travelway, but the sections could be paved separately should the contractor choose to pave them separately. It is expected that breaks be constructed in accordance with the typical section shown.

A review of the 403 Bit Box does not indicate densities are required for surface pavement placed on shoulders. The standard 400 specification states that a density incentive or disincentive would not apply for pavements placed on shoulders unless a note in the 403 calls out that an incentive or incentive would apply to pavement placed on shoulders. There is no note in the 403 Bit Box to indicate that an incentive or incentive for density applies to the shoulders.

Question: Since these areas are narrow should this be reconsidered? Or should the method for shimming be reconsidered?

Response: : It is not the intent of the Department to determine if the shoulders are to be paved at the same time as the travelway, or if they should be paved separately. Common highway class paver set-ups would allow a break at the edge of travelway if shoulders were paved at the same time as the travelway, but the sections could be paved separately should the contractor choose to pave them separately. It is expected that breaks be constructed in accordance with the typical section shown.

Question: Win: 024999 - Typical Section 2 of 2 - Note 1 Should the centerline control point be the cut depth?

Response: Typical Section 2 of 2 - Note 1 is in error and should be changed from the "shimming" notation to "milling" or "pavement removal" notation. Please **REMOVE** Typical Sections Sheet 2 of 2 on page forty-six and **REPLACE** with the attached Typical Sections Sheet 2 of 2. Totaling one page.

Question: Win: 027856 - Clarify the intentions at Main and Marina

Response: All lanes and shoulders in intersection will be paved as shown on Typical 1 of 2. The contractor will be expected to butt new pavement into the existing construction joints on Main St. Payment will be made under the appropriate contract items.

Question: Are we paving past the end of Marina and into Main? This is not shown on the map. **Response:** The beginning of the project is at Station 9+63. Station 10+00 is located at the following coordinates 43.79836, -70.18151

Question: If yes on Main what is the scope?

Response: The scope is variable depth shim and 1 1/4" HMA overlay with replacement of the median island.

Question: Please clarify the dates in the Section 107

Response: The 44 working days will commence on the date the contractor begins work or on May 5, 2025 whichever is first. No work is allowed from 7:00AM on July 14 until July 21 at 7:00PM

Question: When does the state want this completed or is it our option?

Response: The time charge of 44 working days will begin no later than May 5, 2025. The contractor is expected to complete the work within the allotted 44 working days.

Question: When are the slopes for WIN: 027884 going to be provided?

Response: The slope sheet dated January 3, 2025 has been added by this addendum. Please **REMOVE** page eighty-five titled Cross Slope Sheet dated December 11, 2024 and **REPLACE** with the attached Cross Slope Sheet dated January 3, 2025

Consider these changes and information prior to submitting your bid on January 15, 2025.

Sincerely,



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

SPECIAL PROVISION
SECTION 424
 CRACK REPAIR with HOT POUR MASTIC

Description This work shall consist of preparing and repairing areas identified for crack repair in existing bituminous or concrete pavement layers using hot pour mastic. The hot pour mastic shall be supplied in solid form in boxes containing pre-measured binder blended with aggregates. Products to be used will be subject to approval by the Department. Repair areas will be free of sand, vegetation, water, and any previously placed rubber crack seal or crack repair materials, including cold patch. Preparation, such as cleaning and drying of the cracks by use of oil free compressed air and hot air lance shall be considered included the price per pound of crack repair mastic. Any pavement removal required will be paid for under the appropriate item as described in this Special Provision.

MATERIALS

The hot pour mastic materials are hot-applied, pourable, self-adhesive mastics blended with aggregates designed for maintenance and repair of asphalt and Portland cement concrete pavements. The hot pour mastic materials are composed of highly modified polymer asphalt binder and standard weight aggregates as required by the application.

The mastic materials shall be delivered in the manufacturer's original container. The material shall be pre-packaged with the manufacturers name and product name marked on each container. The materials shall conform to the following requirements:

Property Requirement

POLYMER MODIFIED BINDER

Cone Penetration, 77°F (25°C) (ASTM D5329)	60 max
Cone Penetration, 122°F (50°C) (ASTM D5329)	120 max
Softening Point, (ASTM D36)	200°F (93°C) min
Flexibility, 1" (25.4 mm), 180°, 10 sec) (ASTM D3111 modified)	Pass at 32°F (0°C)

AGGREGATE

Abrasion Resistance (ASTM C131)	35% max
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BLENDED PRODUCT

Flexibility, 32°F (0°C) (ASTM D5329)	Pass
Adhesion, 77°F (25°C) (ASTM D5329)	25 PSI (172 KPA) min
Specific Gravity	1.7 -2.0
Minimum Application Temperature	375°F (190°C) *
Maximum Application Temperature	400°F (204°C)
Test ASTM D8260	Type I Specification Limits
Mastic Resilience (ASTM (8260)	50% minimum
Effects of Rapid Deformation (ASTM D2794) (-7°C)	3 passing specimens no chipping, cracking or separation 8 N-m
Crack Bridging (ASTM C1305 modified) (-7°C)	Pass 3 cycles
Mastic Stability (ASTM D8260) (70°C)	40.0 mm maximum

EQUIPMENT

Equipment Equipment used in the performance of the work shall be subject to the Departments or authorized representative's approval and shall be maintained in a satisfactory working condition at all times.

(a) Air Compressor Air compressors shall be portable and capable of furnishing not less than 4 yd³ of air per minute at not less than 90 psi pressure at the nozzle. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water.

(b) Sweeper Manually operated, gas powered air-broom or self-propelled sweeper designed especially for use in cleaning pavements shall be used to remove debris, dirt, and dust from the cracks.

(c) Hot Air Lance Should operate with propane and compressed air in combination at 2000°F - 3000°F, exit air heated at 1000 ft/s. The lance should draw propane from no smaller than a 100 lb tank using separate hoses for propane and air draw. The hoses shall be wrapped together with reflectorized wrap to keep them together and to protect workers in low light situations.

(d) Hand Tools Shall consist of Boxed or V-shaped squeegee, brooms, shovels, metal bars with chisel shaped ends, and any other tools which may be satisfactorily used to accomplish this work.

(e) Melting Kettle The unit used to heat the mastics shall be a double boiler unit equipped with continuous horizontal full sweep agitation and have separate thermostatic control devices that will automatically regulate hot oil and material temperature. Separate digital readouts shall display the temperatures of the hot oil and material. The kettle shall be equipped with mixing paddles, blending augers, or other satisfactory means of agitating, mixing, and blending the aggregates and mastic together. The kettle must be equipped with thermostatic control calibrated between 200°F and 550°F.

If required in the contract the router or crack saw equipment for preparing cracks shall be of a rotary impact type cutter, equipped with a carbide bit or a diamond-blade crack saw which will provide a reservoir of specified dimensions.

CONSTRUCTION REQUIREMENTS

Weather Hot Pour Mastics shall not be applied on a wet or damp surface, or when the atmospheric temperature is below 45°F in a shaded area at the job site, or when weather conditions are otherwise unfavorable to proper crack repair procedures.

Preparation All cracks shall be prepared to receive the mastic material. All cracks must be cleaned of debris, dried and heated to ensure optimal bonding of the sealant material to the existing pavement and crack edges. All cracks shall be flush filled with pre-blended mastic with minimal overband in the same workday as directed by the Resident or authorized representative.

Cracks greater than 1 inch in width shall be thoroughly cleaned by use of compressed air and dried by use of a hot air lance. Any loose or broken materials will be removed from the repair area before placing mastic materials. If it is determined that additional pavement removal or preparation is needed by means of milling, sawing, or cutting of existing pavement the work will be paid under an appropriate pay item. All materials routed, sawn, cut, or otherwise removed from the areas to be repaired shall immediately be removed from the crack and surrounding paved area by use of compressed air sweeping, or combination of both.

Cracks 1 inch in width to 6 inch width, or repairs that are more structural in nature, such as potholes, depressions, fills or repairs around utility adjustments shall be filled with mastic pre-blended with standard weight aggregates. Generally repairs wider than 6 inches, or those that extend below the surface layer may require additional pavement removal or change in crack treatment type.

All mastic materials shall be heated to between 380°F and 410°F and thoroughly agitated prior to application. A non-contact infrared thermometer shall be used periodically to monitor the temperature of the material as it exits the kettle. Material may not be used if it is heated beyond the safe heating temperature of 410°F, exceeds the recommended pot life, or is reheated more than one time.

The mastics may be applied to large or excessive slope repair areas when the material has been heated to the lower end of the temperature range, or with the addition of 1% of an approved synthetic fiber to minimize material flow and cooling time.

Mastics shall be applied to the repair areas directly from the melting kettle chute, wand or other conveyance method filled from the kettle. If bucketed, material cooling during transfer must be minimized.

The repair area shall be filled flush to the pavement surface. The material shall be poured into the repair area and worked using boxed or v-shaped squeegees, tools, lutes or heated irons. Care should be taken not to over work the material and cause unequal dispersion of the aggregate within the repair. The material may be applied in multiple lifts to accommodate material shrinkage or flow during cooling.

After materials have been applied to the repair, indirect heating by torch or hot air lance can be used to heat the edges and ensure a watertight seal. Do not burn, scorch or ignite the mastic or adjoining pavement when heating.

Do not allow traffic on the repaired areas for one ½ hour, or until the material has cooled enough to support traffic and tracking is minimal.

Quality of Work Excess mastic shall be removed from the pavement by approved methods and discarded. Any work determined to be below normal acceptable standards will not be accepted, and will be corrected and/or replaced as directed by the Resident or authorized representative.

Method of Measurement Crack Repair with Hot Pour Mastic will be measured by the pound of mastic used. The manufacturer's weights of the mastic for each block (pill), counted as they are loaded, will be accepted as a basis for measurement.

Should tank checks be approved to verify material usage or calculate initial or final gallons remaining in the kettle, a calibrated kettle gauge or tank stick shall be used to measure the kettle gallons. Volume corrections shall be calculated using Table:1 to correct the gallon volume to 60 ° F.

For those approved cases the Department has determined the weight of this material to be 15.5 pounds per gallon. The Department will use this conversion value for all materials measured by the gallon and converted to pounds. The corrected volume and resultant pounds shall be made part of the method of measurement, with consideration given to blocks (pills) added during the day and applied in an acceptable manner

Basis of Payment The accepted quantity of Crack Repair with Hot Pour Mastic will be paid for at the contract unit price per pound. This price will be full compensation for furnishing the appropriate material type for the repair being done, heating, placing and finishing the mastic materials, as well as cleaning and preparing the areas for installation of the mastic, including the use of compressed air, hot air lance, and any sweeping required to remove contaminants from and dry the areas to be treated. Areas identified as requiring pavement removal by means of cutting, sawing, grinding, or routing will be paid under an appropriate contract item.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
424.38 Crack Repair, Hot Pour Mastic	Pound

Conversion Table:1

t	M	t	M	t	M	t	M	t	M	t	M
100	0.9861	135	0.9740	170	0.9621	205	0.9503	240	0.9385	275	0.9269
101	0.9857	136	0.9737	171	0.9618	206	0.9499	241	0.9382	276	0.9266
102	0.9854	137	0.9734	172	0.9614	207	0.9496	242	0.9379	277	0.9263
103	0.9851	138	0.9730	173	0.9611	208	0.9493	243	0.9375	278	0.9259
104	0.9847	139	0.9727	174	0.9607	209	0.9489	244	0.9372	279	0.9256
105	0.9844	140	0.9723	175	0.9604	210	0.9486	245	0.9369	280	0.9253
106	0.9840	141	0.9720	176	0.9601	211	0.9483	246	0.9365	281	0.9250
107	0.9837	142	0.9716	177	0.9597	212	0.9479	247	0.9362	282	0.9246
108	0.9833	143	0.9713	178	0.9594	213	0.9476	248	0.9359	283	0.9243
109	0.9830	144	0.9710	179	0.9590	214	0.9472	249	0.9356	284	0.9240
110	0.9826	145	0.9706	180	0.9587	215	0.9469	250	0.9352	285	0.9236
111	0.9823	146	0.9703	181	0.9584	216	0.9466	251	0.9349	286	0.9233
112	0.9819	147	0.9699	182	0.9580	217	0.9462	252	0.9346	287	0.9230
113	0.9816	148	0.9696	183	0.9577	218	0.9459	253	0.9342	288	0.9227
114	0.9813	149	0.9693	184	0.9574	219	0.9456	254	0.9339	289	0.9223
115	0.9809	150	0.9689	185	0.9570	220	0.9452	255	0.9336	290	0.9220
116	0.9806	151	0.9686	186	0.9567	221	0.9449	256	0.9332	291	0.9217
117	0.9802	152	0.9682	187	0.9563	222	0.9446	257	0.9329	292	0.9213
118	0.9799	153	0.9679	188	0.9560	223	0.9442	258	0.9326	293	0.9210
119	0.9795	154	0.9675	189	0.9557	224	0.9439	259	0.9322	294	0.9207
120	0.9792	155	0.9672	190	0.9553	225	0.9436	260	0.9319	295	0.9204
121	0.9788	156	0.9669	191	0.9550	226	0.9432	261	0.9316	296	0.9200
122	0.9785	157	0.9665	192	0.9547	227	0.9429	262	0.9312	297	0.9197
123	0.9782	158	0.9662	193	0.9543	228	0.9426	263	0.9309	298	0.9194
124	0.9778	159	0.9658	194	0.9540	229	0.9422	264	0.9306	299	0.9190
125	0.9775	160	0.9655	195	0.9536	230	0.9419	265	0.9302	300	0.9187
126	0.9771	161	0.9652	196	0.9533	231	0.9416	266	0.9299	301	0.9184
127	0.9768	162	0.9648	197	0.9530	232	0.9412	267	0.9296	302	0.9181
128	0.9764	163	0.9645	198	0.9526	233	0.9409	268	0.9293	303	0.9177
129	0.9761	164	0.9641	199	0.9523	234	0.9405	269	0.9289	304	0.9174
130	0.9758	165	0.9638	200	0.9520	235	0.9402	270	0.9286	305	0.9171
131	0.9754	166	0.9635	201	0.9516	236	0.9399	271	0.9283	306	0.9167
132	0.9751	167	0.9631	202	0.9513	237	0.9395	272	0.9279	307	0.9164
133	0.9747	168	0.9628	203	0.9509	238	0.9392	273	0.9276	308	0.9161
134	0.9744	169	0.9624	204	0.9505	239	0.9389	274	0.9273	309	0.9158

Legend: t = observed temperature in degrees Fahrenheit.
M = multiplier for reducing volumes to the basis of 60° F.

Conversion Table:1

t	M	t	M	t	M	t	M	t	M
310	0.9154	350	0.9024	390	0.8896	430	0.8768	470	0.8643
311	0.9151	351	0.9021	391	0.8892	431	0.8765	471	0.8640
312	0.9148	352	0.9018	392	0.8889	432	0.8762	472	0.8636
313	0.9145	353	0.9015	393	0.8886	433	0.8759	473	0.8633
314	0.9141	354	0.9011	394	0.8883	434	0.8756	474	0.8630
315	0.9138	355	0.9008	395	0.8880	435	0.8753	475	0.8627
316	0.9135	356	0.9005	396	0.8876	436	0.8749	476	0.8624
317	0.9132	357	0.9002	397	0.8873	437	0.8746	477	0.8621
318	0.9128	358	0.8998	398	0.8870	438	0.8743	478	0.8618
319	0.9125	359	0.8995	399	0.8867	439	0.8740	479	0.8615
320	0.9122	360	0.8992	400	0.8864	440	0.8737	480	0.8611
321	0.9118	361	0.8989	401	0.8861	441	0.8734	481	0.8608
322	0.9115	362	0.8986	402	0.8857	442	0.8731	482	0.8605
323	0.9112	363	0.8982	403	0.8854	443	0.8727	483	0.8602
324	0.9109	364	0.8979	404	0.8851	444	0.8724	484	0.8599
325	0.9105	365	0.8976	405	0.8848	445	0.8721	485	0.8596
326	0.9102	366	0.8973	406	0.8845	446	0.8718	486	0.8593
327	0.9099	367	0.8969	407	0.8841	447	0.8715	487	0.8590
328	0.9096	368	0.8966	408	0.8838	448	0.8712	488	0.8587
329	0.9092	369	0.8963	409	0.8835	449	0.8709	489	0.8583
330	0.9089	370	0.8960	410	0.8832	450	0.8705	490	0.8580
331	0.9086	371	0.8957	411	0.8829	451	0.8702	491	0.8577
332	0.9083	372	0.8953	412	0.8826	452	0.8699	492	0.8574
333	0.9079	373	0.8950	413	0.8822	453	0.8696	493	0.8571
334	0.9076	374	0.8947	414	0.8819	454	0.8693	494	0.8568
335	0.9073	375	0.8944	415	0.8816	455	0.8690	495	0.8565
336	0.9070	376	0.8941	416	0.8813	456	0.8687	496	0.8562
337	0.9066	377	0.8937	417	0.8810	457	0.8683	497	0.8559
338	0.9063	378	0.8934	418	0.8806	458	0.8680	498	0.8556
339	0.9060	379	0.8931	419	0.8803	459	0.8677	499	0.8552
340	0.9057	380	0.8928	420	0.8800	460	0.8674		
341	0.9053	381	0.8924	421	0.8797	461	0.8671		
342	0.9050	382	0.8921	422	0.8794	462	0.8668		
343	0.9047	383	0.8918	423	0.8791	463	0.8665		
344	0.9044	384	0.8915	424	0.8989	464	0.8661		
345	0.9040	385	0.8912	425	0.8984	465	0.8658		
346	0.9037	386	0.8908	426	0.8781	466	0.8655		
347	0.9034	387	0.8905	427	0.8778	467	0.8652		
348	0.9031	388	0.8902	428	0.8775	468	0.8649		
349	0.9028	389	0.8899	429	0.8772	469	0.8646		

Legend: t = observed temperature in degrees Fahrenheit.
M = multiplier for reducing volumes to the basis of 60° F.

CONSTRUCTION NOTES

202.202 Removing Pavement Surface

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Side</u>	<u>Comment</u>
28+50		29+50	Lt	Travel way/Turn Lane/Shoulder
40+17		50+00	Lt/Rt	Travel way/Shoulder

The Department will verify the limits of the travelway and shoulder pavement removal prior to milling. The intent is to mill the travelway and shoulder at -4% to achieve proper cross slope. Additional areas may be added by the Resident as the work progresses.

202.203 Pavement Butt Joints

<u>Station</u>	<u>Description</u>
8+90	Project Begin
50+00	Project End

<u>Description</u>	<u>Qty</u>
Paved Drives	19
Commercial Drives	8
Side Roads	7

204.50 Road base Repair Areas

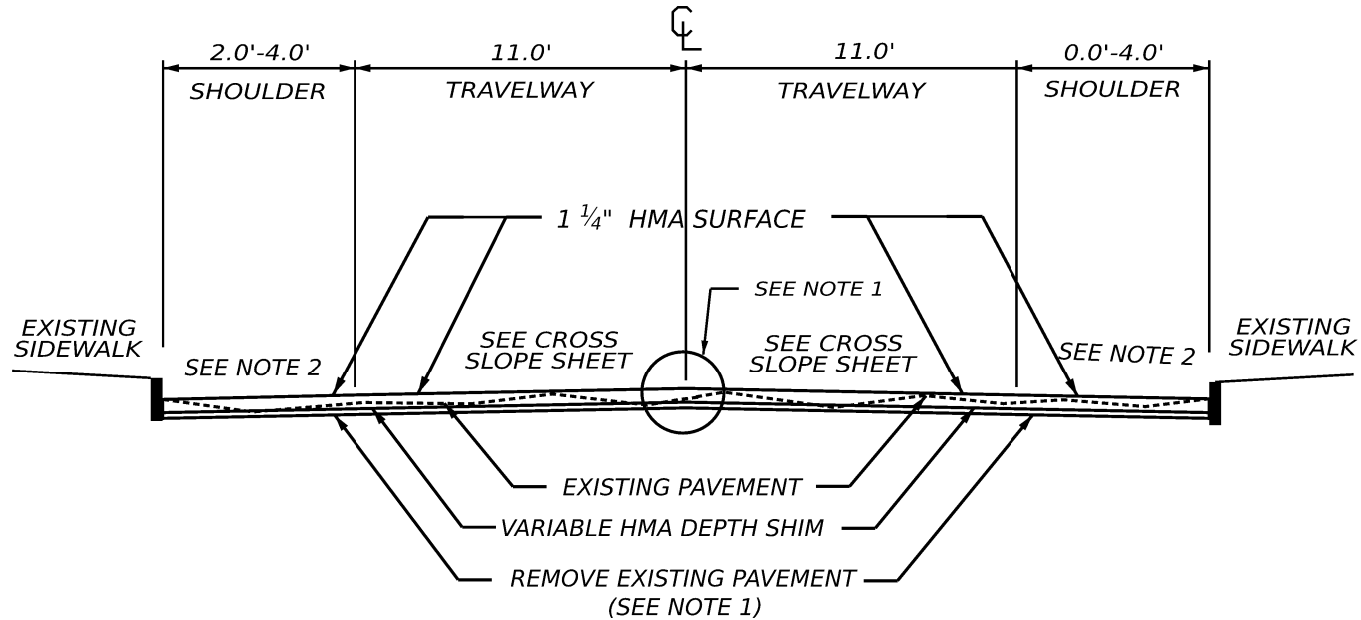
403.102 Hot Mix Asphalt, Special Areas Mix

Locations will be determined after the pavement removal operation and as directed by Resident.

403.209 Hot Mix Asphalt, 9.5 Mm Nominal Maximum Size (Incidentals)

<u>Description</u>	<u>Qty</u>
Paved Drives	19
Gravel Drives	4
Paved Commercial Drives	8
Gravel Commercial Drives	1

MILL & FILL WITH
VARIABLE DEPTH SHIM



STATIONS
40+17 TO 50+00

NOTE 1: THE CENTERLINE SHALL BE THE MILLING CONTROL POINT. THE MILL DEPTH SHALL BE VARIABLE AT THE CONTROL POINT AND THE TRAVELWAYS SHALL BE MILLED TO SLOPE. SEE CROSS SLOPE SHEET FOR PROPOSED SLOPES AND CENTERLINE MARKUPS.

NOTE 2: SHOULDERS SHALL BE SHIMMED TO MATCH SHIM DEPTH AT EDGE OF TRAVELWAY AND A CONSISTENT DEPTH OF 1/2" AT GUTTERLINE. SLOPES SHALL NOT EXCEED 6%

NOT TO SCALE

YARMOUTH
ROUTE 88

TYPICAL SECTIONS

WIN 24999.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2499900

HIGHWAY PLANS

SHEET NUMBER

2 OF 2

CONSTRUCTION NOTES

403.2111 Hot Mix Asphalt, 9.5 Mm Nominal Maximum Size (Polymer Modified)
Shimming

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Side</u>	<u>Comment</u>
8+90		50+00	Lt/Rt	Travelway and Shoulders

Additional spot shim locations may be identified by the Resident. Item to also be used for patching around the adjusted catch basins or manholes as directed by the resident

424.22 Asphalt Rubber Crack Sealer Type 2, Applied

To be used to seal all surface cracks less than 1 ½" in width that remain after milling

424.38 CRACK REPAIR, HOT POUR MASTIC

To be used to seal all surface cracks greater than 1 ½" in width that remain after milling and as directed by the Resident.

604.161 Altering Catch Basin

<u>Station</u>	<u>Side</u>	<u>Station</u>	<u>Side</u>
44+31	Lt	40+82	Rt
46+90	Ctr	41+71	Rt
48+07	Lt	43+07	Rt
		44+06	Rt

604.18 Adjusting Manhole Or Catch Basin To Grade

<u>Station</u>	<u>Side</u>	<u>Station</u>	<u>Side</u>
29+11	Lt	23+98	Rt
30+32	Lt	44+28	Rt
32+67	Lt	44+57	Rt
40+21	Lt	44+80	Rt
45+49	Lt	47+88	Rt
47+89	Lt		
49+24	Lt		
49+93	Lt		

CONSTRUCTION NOTES

615.07 Loam

618.13 Seeding Method Number 1

619.12 Mulch

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Side</u>
8+90		40+17	Lt
8+90		44+85	Rt

627.733 4" White Or Yellow Painted Pavement Marking Line

Center lines and edge lines shall be painted on all matched pavement within one week.

Center line TOMs may be utilized until final striping and will be considered incidental to the contract.

Multilane sections and truck lanes must be striped daily on all matched pavement layers.

627.75 White Or Yellow Pavement & Curb Marking

Stop bar

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Side</u>
9+70		9+92	Rt
10+07		10+29	Rt

Crosswalk

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Side</u>
11+11		11+17	Rt
46+15		46+21	Lt
49+61		49+67	Lt

CONSTRUCTION NOTES

627.78 Temporary 4" Painted Pavement Marking Line, White Or Yellow

Temporary center lines and edge lines shall be painted on all matched pavement within one week.

Multilane sections, truck lanes, and milled surfaces must be striped daily on all matched pavement layers.

Temporary lines will require one coat on the milled surface and one coat on the shim layer.

629.05 Hand Labor

631.12 All Purpose Excavator (Including Operator)

631.172 Truck – Large (Including Operator)

These items are to be used as directed by the Resident.

CROSS SLOPE SHEET

STA	LEFT			CENTER			RIGHT		
	Travel/Turn Lane Slope %	Travel Lane Slope %	Control Line Depth inch	Right / Left Turn Lane			Control Line Depth inch	Travel Lane Slope %	Travel/Turn Lane Slope %
				Slope %	Depth @ Mid-Point inch	Slope %			
26+00		-1.0	-1.75				-1.00		
25+50		-1.5	-1.50						
25+00		-2.0	-1.50						
24+50		-2.0	-1.25				-1.00		
24+00		-2.5	-1.75				-2.00		
23+50							-2.00		
23+00		-2.5					-1.50		
22+50		-3.0	-1.75						
22+00			-1.50						
21+50			-1.50						
21+00			-1.25						
20+50			-1.25						
20+00			-1.75						
17+00			-1.75						
16+50			-1.50						
16+00			-1.00						
15+50			-1.50					-3.0	
15+00							-1.50	-2.0	
14+50							-1.00		
14+00			-1.50				-1.00		
13+50			-1.00		-2.00		-1.50		
13+00				-2.5	-2.25	-2.0			-2.0
12+50					-2.25	-2.0			
12+00				-2.5	-1.75	-1.0		-2.0	-2.0
11+50		-3.0		-2.0	-1.75	0.0		-2.5	-2.5
11+00		-2.0			-1.50	1.0		-2.5	-2.5
10+50		-2.0		-2.0	-1.50	1.5		-1.5	-1.5
10+00		Match		Match	-2.00	Match	-1.50	Match	Match

Notes: 1. A negative (-) depth indicates a mill area, a positive depth indicates a shim area.
2. From Station 13+50 to Station 34+50, the center turn lane crown will be maintained at the mid-point of the lane. The mid-point of the lane will be milled to the cut depth as specified in the slope sheet. The Contractor shall verify that a "vee" is not created between the crown and lane line during milling operations.

CROSS SLOPE SHEET

STA	LEFT			CENTER			RIGHT		
	Travel/Turn Lane Slope %	Travel Lane Slope %	Control Line Depth inch	Right / Left Turn Lane			Control Line Depth inch	Travel Lane Slope %	Travel/Turn Lane Slope %
				Slope %	Depth @ Mid-Point inch	Slope %			
42+50		Match	-2.00				-2.00	Match	
41+50		Bridge	-1.50				-1.50	Bridge	
40+50		Match	-2.00				-2.00	Match	
40+00		2.5						-3.5	
39+50									
39+00		2.5	-2.00				-2.00		
38+50		2.0	-2.75				-2.75	-3.5	
38+00			-3.25				-3.25	-3.0	
36+00			-3.25		-3.25		-3.25		
35+50		2.0	-2.75		-2.75		-2.75		
35+00		2.5	-2.25		-2.25		-2.25		
34+50			-2.00		-2.00		-2.00	-3.0	
34+00								-3.5	
33+00	-4.0		-2.00				-2.00		
32+50	-2.0		-2.50				-2.50		
32+00	-2.0		-2.50				-2.00		
31+50	-1.5	2.5	-2.25				-2.00		
31+00	-1.5	2.0	-2.25				-2.25		
30+50			-2.50						
30+00							-2.25		
29+50							-2.75		
29+00							-2.25		
28+50			-2.50				-2.00		
28+00			-2.25					-3.5	
27+50		2.0						-3.0	
27+00		1.0	-2.25						
26+50		0.5	-2.00				-2.00		

Notes: 1. A negative (-) depth indicates a mill area, a positive depth indicates a shim area.
2. From Station 13+50 to Station 34+50, the center turn lane crown will be maintained at the mid-point of the lane. The mid-point of the lane will be milled to the cut depth as specified in the slope sheet. The Contractor shall verify that a "vee" is not created between the crown and lane line during milling operations.

CROSS SLOPE SHEET

STA	LEFT			CENTER			RIGHT		
	Travel/Turn Lane Slope %	Travel Lane Slope %	Control Line Depth inch	Right / Left Turn Lane			Control Line Depth inch	Travel Lane Slope %	Travel/Turn Lane Slope %
				Slope %	Depth @ Mid-Point inch	Slope %			
55+90	Match	Match	-2.00			Match		Match	Match
55+50	2.0	3.0				-4.0		-4.0	-4.0
55+00		3.0							
54+50		2.5				-4.0		-4.0	-4.0
54+00		2.0				-3.5	-2.00	-3.5	-3.5
53+50						-3.5		-3.5	-3.5
53+00	2.0	2.0				-3.0		-3.0	-3.0
52+50	Match	Match	-2.00			Match	-2.00	Match	Match
51+00	Bridge	Bridge	-1.50				-1.50	Bridge	Bridge
49+50	Match	Match	-2.00				-2.00	Match	Match
49+00	2.0	3.0						-3.0	-3.0
48+00	2.0								
47+50	1.0								
47+00	0.5	3.0							
46+50	-1.0	2.0							
45+00	-1.0								-3.0
43+00		2.0						-3.0	

Notes: 1. A negative (-) depth indicates a mill area, a positive depth indicates a shim area.
2. From Station 13+50 to Station 34+50, the center turn lane crown will be maintained at the mid-point of the lane. The mid-point of the lane will be milled to the cut depth as specified in the slope sheet. The Contractor shall verify that a "vee" is not created between the crown and lane line during milling operations.