



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

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

June 23, 2008
Subject: **Madrid**
State Project No. 010019.00
Amendment No. 4

Dear Sir/Ms:

Make the following change to the Bid Documents:

In the Bid Book; **REMOVE** the amended "SCHEDULE OF ITEMS", 8 pages dated 080616 and **REPLACE** with the attached new "SCHEDULE OF ITEMS", 8 pages dated 080623.

In the Bid Book, after SPECIAL PROVISION, DIVISION 400, PAVEMENTS, **REMOVE** "SPECIAL PROVISION, SECTION 401, HOT MIX ASPHALT PAVEMENTS, (Hot Bituminous Stabilized Base)", 2 pages dated June 16, 2008. **REPLACE** with the attached new SPECIAL PROVISION, SECTION 401, HOT MIX ASPHALT PAVEMENTS, (Hot Bituminous Stabilized Base), 2 pages dated June 23, 2008.

In the Bid Book, after "SPECIAL PROVISION, DIVISION 400, PAVEMENTS", **REMOVE** "SPECIAL PROVISION, SECTION 401, HOT MIX ASPHALT PAVEMENTS", (Hot Bituminous Stabilized Base w/additive), 3 pages dated June 16, 2008. **REPLACE** with the attached new SPECIAL PROVISION, SECTION 401, HOT MIX ASPHALT PAVEMENTS, (Hot Bituminous Stabilized Base w/additive) 3 pages dated June 23, 2008

In the Bid Book, **REMOVE** "SPECIAL PROVISION, SECTION 403, HOT MIX ASPHALT", 2 pages dated June 16, 2008 and **REPLACE** with the attached, new "SPECIAL PROVISION, SECTION 403, HOT MIX ASPHALT" (2 pages dated June 23, 2008).

In the Plans, ESTIMATED QUANTITIES & EARTHWORK SUMMARY, ESTIMATED QUANTITIES, **CHANGE** the ESTIMATED QUANTITIES to reflect the attached, new "SCHEDULE OF ITEMS", 8 pages dated 080623. Make this change in pen and ink.

The following questions have been received:



PRINTED ON RECYCLED PAPER

Question: We have received amendment #3. Please clarify removal of item 308.35 and decrease in gravel (304.10) quantity. Two items were added, 425.30 & 435.31. How does all this work?

Response: The Department has decided to use items 425.30 and 425.31 instead of item 308.35. The change in quantity of 304.10 is due to better quantifying of the variable depth gravel needed and an error found in the estimated quantity that was first used for this item.

Question: Per Special Provision 401 of Amendment #3, "This work consists of the removal of all bituminous pavement from the existing roadway". Is the quantity included in item 203.20 common excavation?

Response: The pavement removal for this project is included in item 203.20 Common Excavation and will be paid as such. Both 401 special provisions have been updated to include these changes.

Consider these changes and information prior to submitting your bid on **June 25, 2008**.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Bickford". The signature is fluid and cursive, with a large initial "S" and "B".

Scott Bickford
Contracts & Specifications Engineer

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
SECTION 0001 PROJECT ITEMS						
0010	201.11 CLEARING	8.000 HA				
0020	201.12 SELECTIVE CLEARING AND THINNING	1.000 HA				
0030	202.15 REMOVING MANHOLE OR CATCH BASIN	1.000 EA				
0040	203.20 COMMON EXCAVATION	98000.000 M3				
0050	203.21 ROCK EXCAVATION	15500.000 M3				
0060	203.212 SPECIAL PERIMETER CONTROL BLASTING	9000.000 M				
0070	203.242 DIRTY BORROW	4300.000 M3				
0080	203.25 GRANULAR BORROW	670.000 M3				
0090	206.061 STRUCTURAL EARTH EXCAVATION - DRAINAGE AND MINOR STRUCTURES, BELOW GRADE	100.000 M3				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	206.07 STRUCTURAL ROCK EXCAVATION - DRAINAGE AND MINOR STRUCTURES	120.000 M3				
0110	304.10 AGGREGATE SUBBASE COURSE - GRAVEL	30800.000 M3				
0120	403.207 HOT MIX ASPHALT 19.0 MM NOMINAL MAX SIZE	2600.000 MG				
0130	403.208 HOT MIX ASPHALT 12.5 MM, SURFACE	5650.000 MG				
0140	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	55.000 MG				
0150	403.211 HOT MIX ASPHALT (SHIM)	180.000 MG				
0160	403.213 HOT MIX ASPHALT 12.5 MM, BASE	6900.000 MG				
0170	409.15 BITUMINOUS TACK COAT APPLIED	11700.000 L				
0180	425.30 HOT STABILIZED ASPHALT BASE	2600.000 MG				
0190	425.31 HOT STABILIZED ASPHALT BASE W/ ADDITIVES	5200.000 MG				
0200	502.302 STRUCTURAL CONCRETE BOX CULVERT, REPAIR @ Sta. 4+780	LUMP	LUMP			

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0210	534.71 PRECAST CONCRETE BOX CULVERT Extension @ STA 4+780	LUMP	LUMP			
0220	534.71 PRECAST CONCRETE BOX CULVERT STA 4+120	LUMP	LUMP			
0230	534.71 PRECAST CONCRETE BOX CULVERT STA 4+410	LUMP	LUMP			
0240	603.159 300 MM CULVERT PIPE OPTION III	M 45.000				
0250	603.16 375 MM CULVERT PIPE OPTION I	M 66.000				
0260	603.17 450 MM CULVERT PIPE OPTION I	M 12.000				
0270	603.179 450 MM CULVERT PIPE OPTION III	M 100.000				
0280	603.18 525 MM CULVERT PIPE OPTION I	M 26.000				
0290	603.189 525 MM CULVERT PIPE OPTION III	M 16.000				
0300	603.19 600 MM CULVERT PIPE OPTION I	M 76.000				
0310	603.199 600 MM CULVERT PIPE OPTION III	M 101.000				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0320	603.209 750 MM CULVERT PIPE OPTION III	49.000 M				
0330	603.219 900 MM CULVERT PIPE OPTION III	80.000 M				
0340	603.229 1050 MM CULVERT PIPE OPTION III	21.000 M				
0350	603.42 762 MM REINFORCED CONCRETE PIPE CLASS IV	29.000 M				
0360	603.45 1219 MM REINFORCED CONCRETE PIPE CLASS IV	36.000 M				
0370	605.09 150 MM UNDERDRAIN TYPE B	340.000 M				
0380	605.10 150 MM UNDERDRAIN OUTLET	60.000 M				
0390	605.11 300 MM UNDERDRAIN TYPE C	510.000 M				
0400	606.1722 BRIDGE TRANSITION - TYPE 2	4.000 EA				
0410	606.23 GUARDRAIL TYPE 3C - SINGLE RAIL	2770.000 M				
0420	606.232 GUARDRAIL TYPE 3C - OVER 4.5 M RADIUS	31.000 M				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0430	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	84.000 EA				
0440	606.356 UNDERDRAIN DELINEATOR POST	6.000 EA				
0450	606.47 SINGLE WOOD POST	2.000 EA				
0460	606.79 GUARDRAIL 350 FLARED TERMINAL	34.000 EA				
0470	610.08 PLAIN RIPRAP	4700.000 M3				
0480	610.16 HEAVY RIPRAP	360.000 M3				
0490	610.18 STONE DITCH PROTECTION	1200.000 M3				
0500	610.210 STREAM CHANNEL ROCKS	20.000 M3				
0510	610.211 STREAM CHANNEL GRAVEL	30.000 M3				
0520	613.319 EROSION CONTROL BLANKET	3450.000 M2				
0530	618.1401 SEEDING METHOD NUMBER 2 - PLAN QUANTITY	590.000 UN				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0540	618.1411 SEEDING METHOD NUMBER 3 - PLAN QUANTITY	280.000 UN				
0550	619.1201 MULCH - PLAN QUANTITY	870.000 UN				
0560	620.54 STABILIZATION GEOTEXTILE	3000.000 M2				
0570	620.58 EROSION CONTROL GEOTEXTILE	9900.000 M2				
0580	627.711 WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE (PLAN QUANTITY)	17920.000 M				
0590	627.76 TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	LUMP	LUMP			
0600	629.05 HAND LABOR, STRAIGHT TIME	50.000 HR				
0610	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	30.000 HR				
0620	631.13 BULLDOZER (INCLUDING OPERATOR)	20.000 HR				
0630	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	40.000 HR				
0640	631.18 CHAIN SAW RENTAL (INCLUDING OPERATOR)	10.000 HR				

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0650	631.22 FRONT END LOADER (INCLUDING OPERATOR)	20.000 HR				
0660	639.18 FIELD OFFICE TYPE A	1.000 EA				
0670	652.31 TYPE I BARRICADE	20.000 EA				
0680	652.312 TYPE III BARRICADE	20.000 EA				
0690	652.33 DRUM	100.000 EA				
0700	652.34 CONE	200.000 EA				
0710	652.35 CONSTRUCTION SIGNS	75.000 M2				
0720	652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES	LUMP	LUMP			
0730	652.38 FLAGGER	8000.000 HR				
0740	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP	LUMP			
0750	659.10 MOBILIZATION	LUMP	LUMP			
	SECTION 0001 TOTAL					

SCHEDULE OF ITEMS

REVISED:

CONTRACT ID: 010019.00

PROJECT(S): 010019.00

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
	TOTAL BID					

SPECIAL PROVISION
SECTION 401
HOT MIX ASPHALT PAVEMENTS
 (Hot Bituminous Stabilized Base)

The Special Provision 401 – Hot Mix Asphalt Pavement, has been modified with the following revisions. All sections not revised by this Special Provision shall be as outlined in the Special Provision 400 Pavements, dated 3-12-2008, section 401 – Hot Mix Asphalt Pavement.

401.01 Description This work shall consist of the removal of all bituminous pavement from the existing roadway, hauling the bituminous pavement to an approved location, and processing as per this Specification. The gravel base of the existing roadway shall be regarded and compacted to the tolerances shown on the typicals, or as directed by the Resident. The placement, grading and compaction of additional gravel base shall be paid under the appropriate aggregate base item.

All Hot Bituminous Stabilized Base shall be placed in one or more courses on an approved base and in accordance with these specifications, and in reasonably close conformity with the lines, grades and thicknesses indicated on the plans, or as established by the Resident. Excess recycled material not used in the Hot Bituminous Stabilized Base process will become the property and responsibility of the contractor.

MATERIALS

401.03 Composition of Mixtures – (paragraph 1) - The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), and mineral filler if required. HMA shall be designed and tested according to AASHTO T312 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). The Contractor shall submit designs for approval utilizing a minimum of **20%** to a maximum of **40%** of recycled asphalt pavement (RAP) in any Hot Bituminous Stabilized Base course unless otherwise directed by the Department. The Hot Bituminous Stabilized Base shall be designed for an Air Void Target of 6.0 % at 75 Gyrations. All recycled asphalt pavement (RAP) utilized in the Hot Bituminous Stabilized Base shall be salvaged from the project, unless otherwise authorized by the Department.

REVISED TABLE 1: VOLUMETRIC DESIGN CRITERIA

Design ESAL's (Millions)	Required Density (Percent of G _{mm})			Voids in the Mineral Aggregate (VMA)(Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N _{initial}	N _{design}	N _{max}	25 [1 inch]	19 [¾ in]	12.5 [½ in]	9.5 [⅜ in]	4.75 [#4]		
<0.3	≤91.5								70-80	0.6-1.4
0.3 to <3	≤90.5								65-78	
3 to <10		96.0	≤98.0	12.0	13.0	14.0	15.0	16.0	65-75*	
10 to <30	≤89.0									
≥ 30										

*For 9.5 mm [⅜ in] nominal maximum aggregate size mixtures, the maximum VFB is 76.

*For 4.75 mm [#4] nominal maximum aggregate size mixtures, the maximum VFB is 80.

401.05 Performance Graded Asphalt Binder Unless otherwise noted in Special Provision 403 - Hot Bituminous Pavement, PGAB shall be 64-28 or 58-28. The PGAB shall meet the applicable requirements of AASHTO M320 - Standard Specification for PGAB. The Contractor shall provide the Department with an approved copy of the Quality Control Plan for PGAB in accordance with AASHTO R 26-01 Certifying Suppliers of PGAB.

401.052 Repairs Repairs and maintenance for the Hot Bituminous Stabilized Base, during and after the placing operation, resulting from damage caused by traffic, weather or environmental conditions, or caused by the Contractor's operations or equipment, shall be completed at no additional cost to the Department.

Low areas will be repaired using a hot mix asphalt shim course. Areas up to 25mm [1 in] high can be repaired by milling or shimming with hot mix asphalt. Areas higher than 25mm [1 in] will be repaired using a hot mix asphalt shim. All repair work will be done with the Resident's approval at the Contractor's expense.

401.22 Basis of Payment The Department will pay for the work, in place and accepted, in accordance with the applicable sections of this Section, for each type of HMA specified.

The Department will pay for the work specified in Section 401.11, for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying bituminous material to joints and contact surfaces is incidental.

The accepted quantity of Hot Bituminous Stabilized Base will be paid under the contract unit price per Mg [Ton], complete in-place which price will be full compensation for furnishing all equipment and labor for regrading and compacting existing gravel base, processing, mixing, testing, placing, and compacting, excess material relocation, and for all incidentals necessary to complete the work. The placement, grading and compaction of additional gravel base shall be paid under the appropriate aggregate base item. Pavement removal will be paid as Common Excavation.

Payment for this work under the appropriate pay items shall be full compensation for all labor, equipment, materials, and incidentals necessary to meet all related contract requirements, including design of the JMF, implementation of the QCP, obtaining core samples, transporting cores and samples, filling core holes, applying emulsified asphalt to joints, and providing testing facilities and equipment.

The Department will make a pay adjustment for quality as specified below.

401.222 Pay Factor (PF) The Department will use the following criteria for pay adjustment using the pay adjustment factors under Section 106.7 - Quality Level Analysis: Method C Testing criteria

Payments will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
425.30 – Hot Bituminous Stabilized Base	Ton [Mg]

SPECIAL PROVISION
SECTION 401
HOT MIX ASPHALT PAVEMENTS
 (Hot Bituminous Stabilized Base w/ additive)

The Special Provision 401 – Hot Mix Asphalt Pavement, has been modified with the following revisions. All sections not revised by this Special Provision shall be as outlined in the Special Provision 400 Pavements, dated 3-12-2008, section 401 – Hot Mix Asphalt Pavement.

401.01 Description This work shall consist of the removal of all bituminous pavement from the existing roadway, hauling the bituminous pavement to an approved location, and processing together with a Warm Mix Asphalt Additive as per this Specification. The gravel base of the existing roadway shall be regarded and compacted to the tolerances shown on the typicals, or as directed by the Resident. The placement, grading and compaction of additional gravel base shall be paid under the appropriate aggregate base item.

All Hot Bituminous Stabilized Base with Additive shall be placed in one or more courses on an approved base and in accordance with these specifications, and in reasonably close conformity with the lines, grades and thicknesses indicated on the plans, or as established by the Resident. Excess recycled material not used in the Hot Bituminous Stabilized Base process will become the property and responsibility of the contractor.

MATERIALS

401.03 Composition of Mixtures – (paragraph 1) - The Contractor shall compose the Hot Mix Asphalt Pavement with aggregate, Performance Graded Asphalt Binder (PGAB), **Warm Mix Additive**, and mineral filler if required. The mixture shall be designed and tested according to AASHTO T312 and the volumetric criteria in Table 1. The Contractor shall size, uniformly grade, and combine the aggregate fractions in proportions that provide a mixture meeting the grading requirements of the Job Mix Formula (JMF). The Contractor shall submit designs for approval utilizing a minimum of **20%** to a maximum of **40%** of recycled asphalt pavement (RAP) in any Hot Bituminous Stabilized Base course unless otherwise directed by the Department. The Hot Bituminous Stabilized Base shall be designed for an Air Void Target of **6.0 % at 75 Gyration**s. **Warm Mix Additives** shall be introduced into the mixture at a in a manner and rate recommended by the additive manufacturer. All recycled asphalt pavement (RAP) utilized in the Hot Bituminous Stabilized Base shall be salvaged from the project, unless otherwise authorized by the Department.

REVISED TABLE 1: VOLUMETRIC DESIGN CRITERIA

Design ESAL's (Millions)	Required Density (Percent of G _{mm})			Voids in the Mineral Aggregate (VMA)(Minimum Percent)					Voids Filled with Binder (VFB) (Minimum %)	Fines/Eff. Binder Ratio
				Nominal Maximum Aggregate Size (mm)						
	N _{initial}	N _{design}	N _{max}	25 [1 in]	19 [¾ in]	12.5 [½ in]	9.5 [⅜ in]	4.75 [#4]		
<0.3	≤91.5								70-80	0.6-1.4
0.3 to <3	≤90.5							65-78		
3 to <10		96.0	≤98.0	12.0	13.0	14.0	15.0	16.0	65-75*	
10 to <30	≤89.0									
≥ 30										

*For 9.5 mm [⅜ in] nominal maximum aggregate size mixtures, the maximum VFB is 76.

*For 4.75 mm [#4] nominal maximum aggregate size mixtures, the maximum VFB is 80.

401.031 Warm Mix Additive

Option A - The use of organic additives such as a paraffin wax and or a low molecular weight esterified wax available in 2, 5, 20 or 600 kg [5, 10, 50 or 1250 lb] bags, is required. Wax derived additives shall be introduced at the rate recommended by the manufacture, typically 3 percent by weight (3%) of the mix to gain the desired reduction in viscosity, and should not exceed 4 percent due to the possible impact on the binder's low temperature properties. Wax derived additives shall be introduced into the hot asphalt binder at the asphalt plant and fully blended using a tank agitator / stirrer. Wax additives shall have a melting point of approximately 99° C [210° F]. Minimum placement temperatures shall be as per manufactures recommendations. A Quality Control Plan shall be submitted for approval by the Department.

Option B – The use of a manufactured synthetic zeolite (Sodium Aluminum Silicate), available in a very fine powdered form in 25 or 50 kg [55 or 110 lb] bags, or in bulk for silos. Sodium aluminum silicate additives shall be introduced at a rate recommended by the manufacturer, typically 0.3 percent by mass of the mix. Sodium aluminum silicate additives shall be introduced into the hot mix plant mixing chamber by mechanical means that can be controlled and tied directly to the hot mix asphalt plants rate of production. Minimum placement temperatures shall be as per manufactures recommendations. A Quality Control Plan shall be submitted for approval by the Department.

Option C – The use of a chemical additive technology and a "Dispersed Asphalt Technology" delivery system shall be required. This process utilizes chemical technology delivered into a dispersed asphalt phase (emulsion). The asphalt emulsion with chemical package is used in place of the traditional asphalt binder. The emulsion is mixed with the aggregate in the HMA plant at a rate recommended by the manufacturer. This additive shall be introduced into the hot mix plant mixing chamber by mechanical means that can be controlled and tied directly to the hot mix asphalt plants rate of production. Minimum placement temperatures shall be as per manufactures recommendations. A Quality Control Plan shall be submitted for approval by the Department.

Option D – Other products / processes approved by the Department.

401.05 Performance Graded Asphalt Binder Unless otherwise noted in Special Provision 403 - Hot Bituminous Pavement, PGAB shall be 64-28 or 58-28. The PGAB shall meet the applicable requirements of AASHTO M320 - Standard Specification for PGAB. The Contractor shall provide the Department with an approved copy of the Quality Control Plan for PGAB in accordance with AASHTO R 26-01 Certifying Suppliers of PGAB.

401.052 Repairs Repairs and maintenance for the Hot Bituminous Stabilized Base with Additive, during and after the placing operation, resulting from damage caused by traffic, weather or environmental conditions, or caused by the Contractor's operations or equipment, shall be completed at no additional cost to the Department. Low areas will be repaired using a hot mix asphalt shim course. Areas up to 25mm [1 in] high can be repaired by milling or shimming with hot mix asphalt. Areas higher than 25mm [1 in] will be repaired using a hot mix asphalt shim. All repair work will be done with the Resident's approval at the Contractor's expense.

401.06 Weather Limitations The plant mixed recycled asphalt pavement shall be performed when:

- a. Operations will be allowed between May 15th and September 15th inclusive.
- b. The atmospheric temperature, as determined by an approved thermometer placed in the shade at the recycling location, is 10°C [50⁰F] and rising.
- c. When there is no standing water on the surface.
- d. During generally dry conditions, or when weather conditions are such that proper pulverizing, adding, mixing, and curing can be obtained using proper procedures, and when compaction can be accomplished as determined by the Resident.
- e. When the surface is not frozen and when overnight temperatures are expected to be above 0°C [32⁰F].

401.22 Basis of Payment The Department will pay for the work, in place and accepted, in accordance with the applicable sections of this Section, for each type of HMA specified.

The Department will pay for the work specified in Section 401.11, for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying bituminous material to joints and contact surfaces is incidental.

The accepted quantity of Hot Bituminous Stabilized Base with Additive will be paid under the contract unit price per Mg [Ton], complete in-place which price will be full compensation for furnishing all equipment and labor for regrading and compacting existing gravel base, processing, mixing, testing, placing, and compacting, excess material relocation, and for all incidentals necessary to complete the work. The placement, grading and compaction of additional gravel base shall be paid under the appropriate aggregate base item. Pavement removal will be paid as Common Excavation.

Payment for this work under the appropriate pay items shall be full compensation for all labor, equipment, materials, and incidentals necessary to meet all related contract requirements, including design of the JMF, implementation of the QCP, obtaining core samples, transporting cores and samples, filling core holes, applying emulsified asphalt to joints, and providing testing facilities and equipment.

The Department will make a pay adjustment for quality as specified below.

401.222 Pay Factor (PF) The Department will use the following criteria for pay adjustment using the pay adjustment factors under Section 106.7 - Quality Level Analysis: Method C Testing criteria

Payments will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
425.31 – Hot Bituminous Stabilized Base w / Additive	Ton [Mg]

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

Desc. of Course	Grad. Design	Item Number	Bit Cont. % of Mix	Total Thick	No. Of Layers	Comp. Notes
<u>165mm HMA Overlay</u>						
<u>Normal Mainline Travelway Sections - Full Construction Areas</u>						
Wearing	12.5mm	403.208	N/A	40mm	1	1,5,9,12,22
Base	12.5mm	403.213	N/A	50mm	1	1,5,9
Base	19.0mm	ref: note 25	N/A	75mm	1/more	1,5,9,13,25
<u>165mm HMA Overlay</u>						
<u>Normal Shoulders - Full Construction Areas</u>						
Wearing	12.5mm	403.208	N/A	40mm	1	1,5,9,12
Base	12.5mm	403.213	N/A	50mm	1	1,5,9
Base	19.0mm	ref: note 25	N/A	75mm	1/more	1,5,9,13,25
<u>Shim</u>						
Shim	9.5mm	403.211	N/A	variable	1/more	2,5,10, 11
<u>Drives, Misc.</u>						
Wearing	9.5 mm	403.209	N/A	50mm	2/more	2,3,10,11,14

COMPLEMENTARY NOTES

- The required PGAB for this mixture will meet a **PG 58-28** to **PG 64-28** grading. The Contractor must stipulate the which PGAB grading will be used to construct the entire HMA pavement structure prior to starting work.
- The density requirements are waived.
- The design traffic level for mix placed shall be <0.3 million ESALS.
- 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 **75 gyrations**.
- Section 106.6 Acceptance, Method C.
- Section 106.6 Acceptance, (2) Method D.
- The combined aggregate gradation required for this item shall be classified as a 9.5mm “**fine graded**” mixture, (using the Primary Control Sieve control point) as defined in 703.09.
- A mixture meeting the gradation of 9.5 mm hot mix asphalt may be used at the option of the contractor.
- The combined aggregate gradation required for this item shall be classified as a 19.0mm “**fine graded**” mixture (using the Primary Control Sieve control point) as defined in 703.09.
- A mixture meeting the requirements of section 703.09 Grading ‘D’, with a minimum PGAB content of 6%, and the limits of Special Provision 401, Table 9 (Drives and Sidewalks) for PGAB content and gradation may be substituted for this item. A job mix formula shall be submitted to the department for approval.
- Any areas reconstructed and exposed to traffic over winter suspension shall have the full depth, full width layers of 19.0 mm HMA base, and the 12.5mm HMA base layers placed prior to the winter suspension of work on the project. All work associated with this item will be required to be done within the standard seasonal limitations, and evaluated in accordance with all applicable specifications. Any work performed outside the seasonal limitations dates will be considered temporary, and removed and replaced at no cost to the Department when work resumes in the next working season.

**Madrid
PIN 10019.00
Route 4
Highway Reconstruction
June 16, 2008**

22. The final pavement surface shall be evaluated for smoothness in accordance with Standard Specification Section 402 – Pavement Smoothness. Acceptance limits shall be as outlined under the **Level II** classification.
25. This layer shall consist of a standard 19.0mm HMA control section, a 19.0mm Hot Bituminous Stabilized Base section (Item 425.30), and two 19.0mm Hot Bituminous Stabilized Base with additive sections (Item 425.31). The length of the project will be broken into 4 approximately equal sections of the contractor's choosing for use as the Base Test Sections. Unless otherwise authorized by the Department, the individual sections should be continuous sections.

Tack Coat

A tack coat of emulsified asphalt, RS-1, Item #409.15 shall be applied to any existing pavement at a rate of approximately 0.08 L/m², and on milled pavement approximately 0.2 L/m², prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim / intermediate course and the surface course, at a rate not to exceed 0.08 L/m².

Tack used between layers of pavement will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.