1	SECTION 401 – HOT MIX ASPHALT (HMA) PAVEMENT				
2 3 4	Make the following amendments to said Sections:				
4 5 6 7	(I) Amend Section 401.02(A) General, by adding the following paragraph after line 24:				
8 9 10 11 12	"The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these specifications. WMA processes include combinations of organic additives, chemical additives, and foaming."				
13 14 15	(II) Amend Section 401.02(A) General, by replacing lines 36 - 37 to read as follows:				
16 17 18	"In surface and binder courses, aggregate for HMA may include RAP quantities up to 20 percent of total mix weight."				
18 19 20 21	(III) Amend Section 401.02(C) Submittals, by adding the following paragraph after line 89:				
21 22 23 24 25 26 27	"The Contractor may use warm mix asphalt (WMA) processes in the production of HMA. The Contractor shall submit to the Engineer for approval, the proposed process and how it will be used in the manufacture of HMA. The process submittal shall include the temperature range of the WMA."				
28 29 30	(IV) Amend Section 401.03(B)(3) Asphalt Pavers, from line 200 to include the following:				
30 31 32 33 34 35 36 37 38	"(h) Equipped with a mean of preventing the segregation of the coarse aggregate particles from the remainder of the bituminous plant mix when that mix is carried from the paver hopper back to the paver augers. The means and methods used shall be approved by the paver manufacturer and may consist of chain curtains, deflector plates, or other such devices and any combination of these.				
39 40	The following specific requirements shall apply to the identified bituminous pavers:				
41 42 43 44 45	(1) Blaw-Knox bituminous pavers shall be equipped with the Blaw-Knox Materials Management Kit (MMK).				

46	(2) Cedarapids bituminous pavers shall be those				
40 47	that were manufactured in 1989 or later.				
48					
49	(3) Barber-Green/Caterpillar bituminous pavers				
50	shall be equipped with deflector plates as				
51	identified in the December 2000 Service				
52	Magazine entitled "New Asphalt Deflector Kit				
53	{6630, 6631, 6640}" <b>.</b>				
54	Drive to the start of using the groups for placing plant.				
55 56	Prior to the start of using the paver for placing plant				
56 57	mix, the Contractor shall submit for approval a full description in writing of the means and methodologies that				
58	will be used to prevent bituminous paver segregation. Use of	of			
59	the paver shall not commence prior to receiving approval				
60	from the Engineer.				
61					
62	The Contractor shall supply a Certificate of				
63	Compliance that verifies that the approved means and				
64	methods used to prevent bituminous paver segregation have				
65 66	been implemented on all pavers used on the project and is working in accordance with the manufacturor's				
66 67	working in accordance with the manufacturer's requirements."				
68	requirements.				
69	(V) Amend Section 401.03(F)(1) HMA Pavement Courses One and	а			
69 70	(V) Amend Section 401.03(F)(1) HMA Pavement Courses One and Half Inches Thick Or Greater, from lines 499 to 505 to read as follows:	а			
70 71	Half Inches Thick Or Greater, from lines 499 to 505 to read as follows:				
70 71 72	Half Inches Thick Or Greater, from lines 499 to 505 to read as follows:"(1) HMA Pavement Courses One and a Half Inches Thick O	Or			
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70 71 72 73 74 75 76 77	<ul> <li>Half Inches Thick Or Greater, from lines 499 to 505 to read as follows:</li> <li>"(1) HMA Pavement Courses One and a Half Inches Thick O Greater. Where HMA pavement compacted thickness indicate in the contract documents is 1-1/2 inches or greater, compact to n less than 93.0 percent nor greater than 97.0 percent of the maximum specific gravity determined in accordance with AASHT</li> </ul>	Dr ed ot ne O			
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70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85	<ul> <li>Half Inches Thick Or Greater, from lines 499 to 505 to read as follows:</li> <li>"(1) HMA Pavement Courses One and a Half Inches Thick O Greater. Where HMA pavement compacted thickness indicate in the contract documents is 1-1/2 inches or greater, compact to n less than 93.0 percent nor greater than 97.0 percent of th maximum specific gravity determined in accordance with AASHT T 209, modified by deletion of Supplemental Procedure for Mixture Containing Porous Aggregate."</li> <li>(VI) Amend Section 401.03(F)(3) HMA Pavement Courses One and Half Inches Thick or Greater In Special Areas Not Designated For Vehicula Traffic, from lines 530 to 538 to read as follows:</li> </ul>	Dr ed ot ne O es ar ar			
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70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90	<ul> <li>Half Inches Thick Or Greater, from lines 499 to 505 to read as follows:</li> <li>"(1) HMA Pavement Courses One and a Half Inches Thick O Greater. Where HMA pavement compacted thickness indicate in the contract documents is 1-1/2 inches or greater, compact to n less than 93.0 percent nor greater than 97.0 percent of the maximum specific gravity determined in accordance with AASHT T 209, modified by deletion of Supplemental Procedure for Mixture Containing Porous Aggregate."</li> <li>(VI) Amend Section 401.03(F)(3) HMA Pavement Courses One and Half Inches Thick or Greater In Special Areas Not Designated For Vehicula Traffic, from lines 530 to 538 to read as follows:</li> <li>"(3) HMA Pavement Courses One and a Half Inches Thick or Greater In Special Areas Not Designated For Vehicular Traffic For areas such as bikeways that are not part of roadway and other areas not subjected to vehicular traffic, compact to not less the 90.0 percent of maximum specific gravity determined in accordance with AASHTO T 209, modified by deletion of Supplement</li> </ul>	Or ed the O es ar or c. er at cal			
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92 93 94	asphalt content by at least 0.5 percent above that used for HMA pavements designed for vehicular traffic."					
95 96 97 98	<b>(VII)</b> follows		d Section 401.04 Measureme	ent, from lines 597 to 603 to read as		
99	"401.0	94 Mo	easurement.			
100 101 102 103		<b>(A)</b> Meas	Asphalt concrete pavement w urement for payment will not app	ill be paid on a lump sum basis. ly.		
104 105 106		<b>(B)</b> accor	The Engineer will measure asp dance with the contract documen	phalt concrete pavement per ton in its.		
107 108 109 110		<b>(C)</b> with tl	The Engineer will measure leven ne contract documents."	eling course per ton in accordance		
111 112 113 114	<b>(VIII)</b> follows		d Section 401.05 Payment	, from lines 605 to 635, to read as		
115 116 117 118	Payme	below ent wil	at the contract price per pay unit,	will pay for the accepted pay items as shown in the proposal schedule. rk prescribed in this section and the		
119 120 121 122	The Engineer will pay for each of the following pay items when included in the proposal schedule:					
123		Pay It	tem	Pay Unit		
124 125 126		(A)	HMA Pavement, Mix No. IV	Ton		
127 128 129 130			a job-mix formula acceptable	price upon completion of submitting to the Engineer; preparing the ng the mixture; and compacting the		
131 132 133 134 135 136			samples from the compacted	it price upon completion of cutting pavement for testing; placing and with new material conforming to the pavement; and final analysis.		

137 The Engineer will pay for cold planing in accordance with and under 138 Section 415 – Cold Planing of Existing Pavement.

The Engineer will pay for adjusting existing frames and covers and valve
boxes in accordance with and under Section 604 – Manholes, Inlets and Catch
Basins and Section 626 – Manholes and Valve Boxes for Water and Sewer
Systems.

144

The Engineer may, in lieu of requiring removal and replacement, use the sliding scale factor to accept HMA pavements compacted below 93.0 percent and above 97.0 percent. The Engineer will make payment for the material in that production day at a reduced price arrived at by multiplying the contract unit price by the pay factor shown in Table 401.05-1.

150

Table 401.05-1 – Sliding Scale Pay Factor for Compaction					
Percentage Payment					
Removal					
95					
100					
80					
Removal					
•					

151

- 152 153
- 154
- 155
- 156

## **END OF SECTION 401**