



# Wisconsin Department of Transportation

April 28, 2016

**Division of Transportation Systems Development**

Bureau of Project Development  
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**NOTICE TO ALL CONTRACTORS:**

**Proposal #47: 1610-03-62, WISC 2016191**  
**Medford - Westboro**  
**STH 102 to North County Line**  
**STH 13**  
**Taylor County**

**Letting of May 10, 2016**

This is Addendum No. 02, which provides for the following:

**Special Provisions**

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
31	SMA Pavement Compaction Acceptance, Item SPV.0195.02

Added Special Provisions	
Article No.	Description
37	HMA Pavement Type SMA-Special, Item SPV.0195.05

Deleted Special Provisions	
Article No.	Description
30	HMA Pavement 4 SMA 58-34 V Special, Item SPV.0195.01

**Schedule of Items**

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0195.05	HMA Pavement Type SMA-Special	Ton	0	11235	11235

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0195.01	HMA Pavement 4 SMA 58-34 V Special	Ton	11235	-11235	0

## Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
3	Typical Sections. Pavement Type Changed.
4	Construction Detail. Pavement Type Changed
36	Miscellaneous Quantities. Removed HMA Pavement 4 SMA 58-34 V Special Item. Added HMA Pavement Type SMA-Special item.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

**ADDENDUM NO. 02**

**1610-03-62**

**April 28, 2016**

**Special Provisions**

**3. Prosecution and Progress.**

*Replace paragraph four with the following:*

The contractor shall coordinate construction activities so that traffic does not travel on the milled asphaltic surface for longer than 10 (ten) calendar days prior to the Cold-In-Place Recycling (CIR) Pavement layer being completed. Commencing the day that milling operations begin, the contractor shall install and maintain "Grooved Pavement" (W8-15) signs in each direction of travel at a spacing not to exceed 1 mile throughout the milled area. The signs shall remain in place until the CIR pavement layer has been completed. The installation and maintenance of the "Grooved Pavement" signs is incidental to the Removing Asphaltic Surface Milling bid item. Placement of the HMA Pavement Type SMA-Special shall be started no later than five calendar days after optimal curing of the CIR has been achieved. This paving operation shall be completed as continuous as practical to avoid excessive damage to the cured CIR base from highway traffic.

**30. DELETED.**

**31. SMA Pavement Compaction Acceptance, Item SPV.0195.02.**

*Replace entire section titled B Materials with the following:*

**B Materials**

Furnish materials conforming to HMA Pavement Type SMA- Special.

**37. HMA Pavement Type SMA-Special, Item SPV.0195.05**

**A Description**

This special provision describes HMA Pavement Type SMA-Special. Perform work in accordance with section 460 of the standard specifications, as shown in the plans or as directed by the engineer, and as hereinafter provided.

**B Materials**

*Add the following to subsection 460.2.1*

(2) Mineral filler, whether fly ash or lime dust, shall be stored moisture free. Prior to and during paving, the plant shall demonstrate to the QV team and project engineer that the mineral filler will be metered out correctly into the asphalt mixture. If irregularities in mineral filler metering and/or clumping are observed, then the plant must stop production and corrective action taken.

Replace Table 460-2 Mixture Requirements with the following:

Mixture Type	SMA
ESALS x 10 <sup>8</sup> (20 yr design life)	-
LA Wear (AASHTO T 96)	
100 revolutions (max % loss)	13
500 revolutions (max % loss)	35
Soundness (AASHTO T 104) (sodium sulphate, max % loss)	12
Freeze/Thaw (AASHTO T 103) (Specified counties, max % loss)	18
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	100/90
Flat and elongated (ASTM D4791) (max %, by weight)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	45
Sand Equivalency (AASHTO T 176, min)	50
Gyratory Compaction	
Gyrations for Nini	8
Gyrations for Ndes	65
Gyrations for Nmax	160
Air Voids, % Va (% Gmm @ Ndes)	4.5 (95.5)
% Gmm @ Nini	-
% Gmm @ Nmax	-
Dust to binder ratio <sup>^</sup> [2] (% passing 0.075/Pbe)	1.2-2.0
Voids filled with binder (VFB or FRA, %)	70-80
Tensile strength ratio (TSR) (ASTM 4867)	
No antistripping additive	0.70
With antistripping additive	0.75
Draindown at Production Temperature (%)	0.30
Effective Asphalt Content, Pbe min	5.5 %

Replace subsection 460.2.5(2) of the standard specifications with the following:

Control recycled materials used in HMA by evaluating the percent binder replacement, the ratio of recovered binder to the total binder. The maximum allowable percent binder replacement shall not exceed 9.0 percent. Prior to incorporation into the HMA mixture, one hundred (100) percent of the RAS material must be processed to pass the 4.75mm sieve size.

Delete subsection 460.2.6(2) of the standard specifications.

Replace subsection 460.2.8.2.1.5(1) of the standard specifications.

Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75- $\mu$ m	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent	+ 1.5 / - 1.3	+ 1.2 / -1.0
VMA in percent[1]	- 0.5	- 0.2

[1] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in [table 460-1](#).

Add the following to subsection 460.2.8.2.1.7 of the standard specifications:

(10) The four point running average for air voids must contain two or more successive QC tests within the JMF limits and must not contain two or more successive QC tests outside the JMF limits to be considered a conforming material.

(11) For material that does not meet the definition of article (10) above for conforming material, the department will pay 80% of the contract price for the material from the point where the first QC test is outside the JMF limits until another QC test is within the JMF limits.

Replace subsection 460.2.8.3.1.6 of the standard specifications

The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 3.2 to 6.0 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

*Replace subsection 8-66.2.3.5 of the CMM with the following.*

For SMA mixture design, determine specimen bulk specific gravity (Gmb), using (Corelok System) AASHTO T-331. Report Gmb value to three decimal places (0.001).

*Add the following to subsection 8-36.4 of the CMM*

For the QC testing, SMA volumetric testing for bulk specific gravity (Gmb) and maximum specific gravity (Gmm) will be doubled to help reduce testing variability. Sample sizes shall be large enough to allow for four Gmb and two Gmm specimens for both the QC and the QV testing.

If the contractor requests to run a CA test, a 3-way split of the QC sample will be required. The 3 samples will consist of a QC, QC-retained, and a CA sample. Procedures for the 3-way split must be approved by the engineer prior to producing SMA material.

*Replace subsection 8-36.6.7 of the CMM with the following.*

Determine bulk specific gravity, Gmb, using (Corelok System) AASHTO T-331.

Additional information on using the Corelok for Gmb is provided in the following link:  
<https://www.youtube.com/watch?v=HFT9xIR2InI#t=74>

For the QC testing, determine the average bulk specific gravity, Gmb, for SMA material by averaging 4 specimens instead of the usual 2 specimens. If one of the individual specimens deviates by more than +/- 0.015 from the average, results are considered suspect and the result furthest from the average should be removed from the calculation. Calculate the average using the remaining 3 specimens.

For the QV testing, determine the average bulk specific gravity, Gmb, for SMA material by averaging 2 specimens. If the difference between the two specimens is more than 0.015 from each other, 2 more specimens will be prepared. Determine the average bulk specific gravity for SMA material by averaging the 4 specimens. If one of the individual specimens deviates by more than +/- 0.015 from the average, results are considered suspect and the result furthest from the average should be removed from the calculation. Calculate the average using the remaining 3 specimens.

*Add the following to CMM 8-36.6.8*

Determine the maximum specific gravity, Gmm, for SMA by averaging 2 samples instead of using the usual 1 sample. If one of the individual samples deviates by more than 0.015 from each other, results are considered suspect and a new set of samples is to be prepared.

*Add the following to subsection 460.2.8.3.1.8 of the standard specifications:*

Remove and replace HMA Pavement Type SMA-Special where excessive bleeding problems (fat spots) occur, as these are unacceptable and shall be corrected or removed, per engineer review, at no additional expense to the department.

Furnish AC PG 70 -28 or AC PG 64-34P for the HMA Pavement Type SMA-Special.

## **C (Vacant)**

## **D Measurement**

The department will measure HMA Pavement Type SMA-Special by the ton, acceptably completed.

**E Payment**

The department will pay for measured quantities in accordance to subsection 460.5 of the standard specifications of the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.XX	HMA Pavement Type SMA-Special	TON

**Schedule of Items**

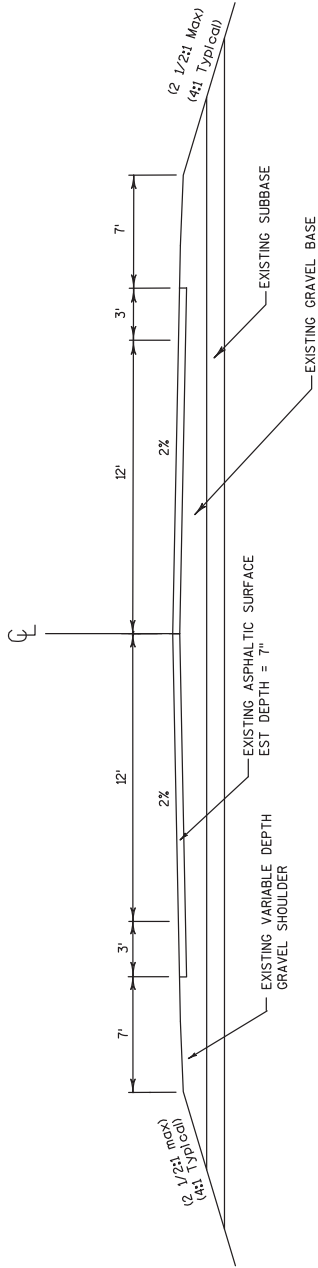
Attached, dated April 28, 2016, are the revised Schedule of Items Pages 6 and 7.

**Plan Sheets**

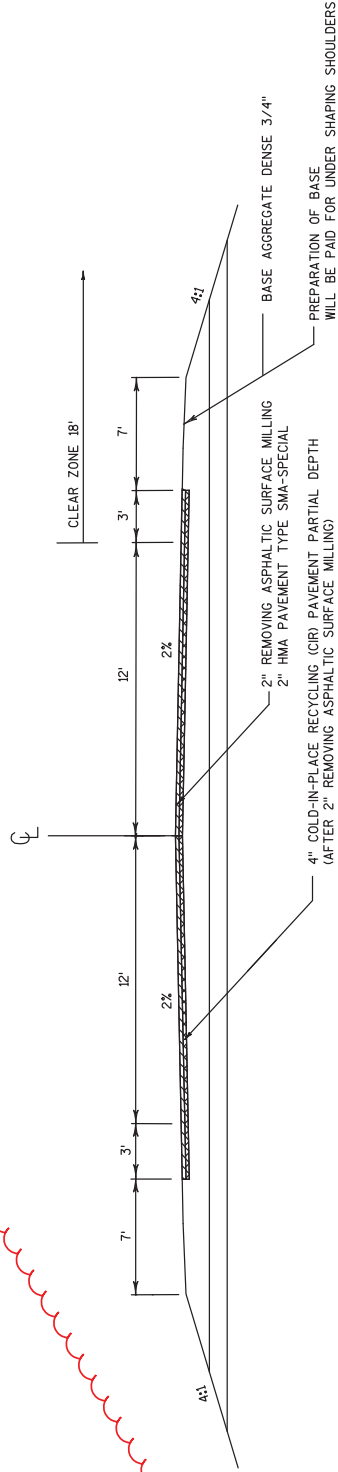
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:  
Revised: 3, 4 and 36.

END OF ADDENDUM

Addendum No. 02  
ID 1610-03-62  
Revised Sheet 3  
April 28, 2016



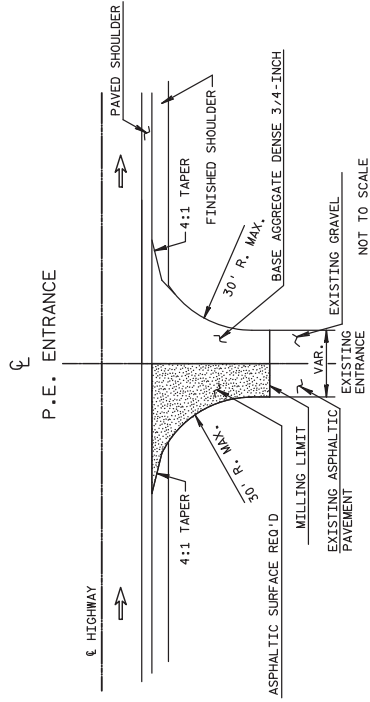
TYPICAL EXISTING SECTION



FINISHED TYPICAL SECTION

NOTE: SEE PAVEMENT CORE LOG SHEET FOR EXISTING PAVEMENT DEPTHS.  
 CORE DEPTHS WERE SUPPLEMENTED WITH GROUND PENETRATING RADAR.  
 GROUND PENETRATING RADAR DATA SHOWING ASPHALTIC SURFACE LAYER THICKNESS IS AVAILABLE BY CONTACTING PHIL KEPPERS (715)395-3027.

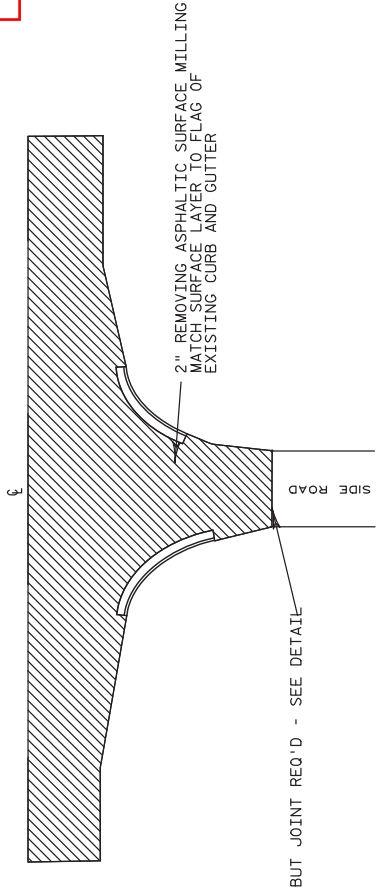
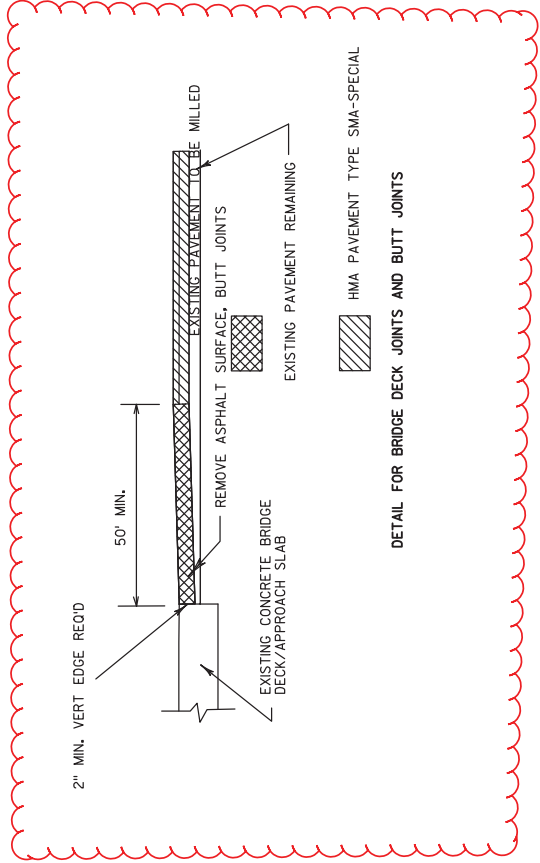
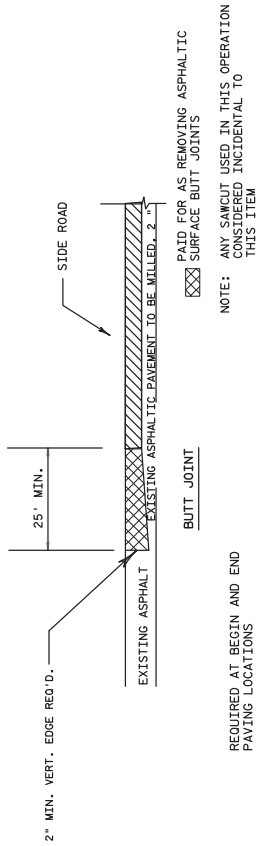




PE DETAIL

Milling Limits on private driveways - Typ. 20' min., 10' max., 30'

Addendum No. 02  
 ID 1610-03-62  
 Revised Sheet 4  
 April 28, 2016



SIDE ROAD DETAIL- CURB AND GUTTER

Special 05. Temporary Portable Rumble Strip Array

CAT	LOCATION	SPV. 0060. 05 EACH
0010	Undr stributed	4
TOTAL 0010		4

SPECIAL 01. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT

CATEGORY	STATION TO	LOCATION	SPV. 0090. 01 LF
0010	611+15 -	611+30 Lt	45
0010	611+50 -	612+10 Rt	65
0010	611+65 -	612+35 Lt	75
TOTAL 0010			185

Special 01. Reheating HMA Pavement Longitudinal Joints Special

CAT	STATION TO	LOCATION	STA	REMARKS	SPV. 0170. 01 CY
0010	454+50 -	755+50	Project		301
TOTAL 0010					301

Special 01. Base Repair for CIR Pavement

CAT	STATION TO	LOCATION	SPV. 0035. 01 CY	
0010	454+50 -	755+50	Project	250
TOTAL 0010			250	

Special 05. HMA Pavement Type SMA-Special

CAT	STATION TO	LOCATION	SPV. 0195. 05 TON	
0010	454+50 -	755+50	Project	11235
TOTAL 0010			11235	

Special 02. SMA Pavement Compaction Acceptance

CAT	STATION TO	LOCATION	SPV. 0195. 02 TON	
0010	454+50 -	755+50	Project	11235
TOTAL 0010			11235	

Special 01. Cold-In-Place Recycling (CIR) Pavement Partial Depth

CAT	STATION TO	LOCATION	SPV. 0180. 01 SY	
0010	455+00 -	604+10	Mainline	49700
0010	607+20 -	648+54	Mainline	13780
0010	650+84 -	755+00	Mainline	34720
TOTAL 0010			98200	

Special 04. Asphalt Stabilizing Agent

CAT	STATION TO	LOCATION	SPV. 0195. 04 TON	
0010	455+00 -	604+10	Mainline	278
0010	607+20 -	648+54	Mainline	77
0010	650+84 -	755+00	Mainline	194
TOTAL 0010			549	

Addendum No. 02  
ID 1610-03-62  
Revised Sheet 36  
April 28, 2016

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160510047PROJECT(S):  
1610-03-62FEDERAL ID(S):  
WISC 2016191

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0540	SPV.0060 Special 04. Barrier System Grading Shaping Finishing Special	EACH 3.000	.	.	.	.
0550	SPV.0060 Special 05. Temporary Portable Rumble Strip Array	EACH 4.000	.	.	.	.
0560	SPV.0090 Special 01. Concrete Curb and Gutter Cure and Seal Treatment	LF 185.000	.	.	.	.
0570	SPV.0105 Special 01. Material Transfer Vehicle	LUMP	LUMP	.	.	.
0580	SPV.0105 Special 02. Milling and Removing Temporary Joint	LUMP	LUMP	.	.	.
0590	SPV.0170 Special 01. Reheating HMA Pavement Longitudinal Joints Special	STA 301.000	.	.	.	.
0610	SPV.0195 Special 02. SMA Pavement Compaction Acceptance	TON 11,235.000	.	.	.	.
0630	SPV.0035 Special 01. Base Repair for CIR Pavement	CY 250.000	.	.	.	.
0640	SPV.0105 Special 03. Prepare Foundation for CIR Pavement 1610-03-62	LUMP	LUMP	.	.	.
0650	SPV.0105 Special 04. Prepare Foundation for HMA Upper Layer 1610-03-62	LUMP	LUMP	.	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160510047

PROJECT(S):  
1610-03-62

FEDERAL ID(S):  
WISC 2016191

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0660	SPV.0180 Special 01. Cold-In-Place Recycling (CIR) Pavement Partial Depth	98,200.000 SY	.		.	
0670	SPV.0195 Special 04. Asphalt Stabilizing Agent	549.000 TON	.		.	
0680	SPV.0195 Special 05. HMA Pavement Type SMA-Special	11,235.000 TON	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	