



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

September 8, 2014

SUBJECT: FAP Route 330 (IL 21/US 45)
Section (1 & 1Y) RS-3
Lake County
Contract No. 60V03
Item No. 8, September 19, 2014 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Replaced the Schedule of Prices.
2. Revised page ii of the Table of Contents of the Special Provisions.
3. Added pages 170-176 to the Special Provisions.
4. Revised sheets 2-5, 7-22, 25, 28, 32, 33, 35-37, and 39 of the Plans.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E.
Acting Engineer of Design and Environment

A handwritten signature in black ink, appearing to read "Ted B. Walschleger" followed by a small "P.E." to the right.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

cc: John Fortmann, Region 1, District 1; Tim Kell; Estimates

MS/as

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60V03

State Job # - C-91-510-12

Project Number

Route

County Name - LAKE - -

*REVISED: SEPTEMBER 4, 2014

FAP 330

Code - 97 - -

District - 1 - -

Section Number - (1&1Y)RS-3

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X2020110	GRADING & SHAP SHLDRS	UNIT	111.000				
*REV X4060110	BIT MATLS PR CT	POUND	155,809.000				
X5537800	SS CLEANED 12	FOOT	620.000				
X5537900	SS CLEANED 15	FOOT	450.000				
X6030310	FR & LIDS ADJUST SPL	EACH	94.000				
Z0004562	COMB C C&G REM & REPL	FOOT	1,800.000				
Z0018500	DRAINAGE STR CLEANED	EACH	130.000				
Z0030850	TEMP INFO SIGNING	SQ FT	462.600				
*ADD Z0034105	MATL TRANSFER DEVICE	TON	22,622.000				
21101615	TOPSOIL F & P 4	SQ YD	405.000				
25000400	NITROGEN FERT NUTR	POUND	7.600				
25000500	PHOSPHORUS FERT NUTR	POUND	7.600				
25000600	POTASSIUM FERT NUTR	POUND	7.600				
25200110	SODDING SALT TOLERANT	SQ YD	405.000				
35501316	HMA BASE CSE 8	SQ YD	22.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
*REV 40600400	MIX CR JTS FLANGEWYS	TON	347.000				
*REV 40600827	P LB MM IL-4.75 N50	TON	9,523.000				
*REV 40600895	CONSTRUC TEST STRIP	EACH	2.000				
*REV 40600982	HMA SURF REM BUTT JT	SQ YD	1,136.000				
*ADD 40603153	P HMA SC SMA N80	TON	22,622.000				
40603335	HMA SC "D" N50	TON	3.000				
*DEL 40603595	P HMA SC "F" N90	TON	22,485.000				
42001300	PROTECTIVE COAT	SQ YD	361.000				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	20.000				
*REV 42400200	PC CONC SIDEWALK 5	SQ FT	1,900.000				
*REV 42400800	DETECTABLE WARNINGS	SQ FT	210.000				
*REV 44000159	HMA SURF REM 2 1/2	SQ YD	230,827.000				
44000200	DRIVE PAVEMENT REM	SQ YD	42.000				
*REV 44000600	SIDEWALK REM	SQ FT	1,837.000				
44201811	CL D PATCH T1 14	SQ YD	500.000				

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44201815	CL D PATCH T2 14	SQ YD	6,000.000				
44201819	CL D PATCH T3 14	SQ YD	1,925.000				
44201821	CL D PATCH T4 14	SQ YD	2,120.000				
48102100	AGG WEDGE SHLD TYPE B	TON	479.000				
60300105	FR & GRATES ADJUST	EACH	15.000				
60403700	LIDS T1 OL	EACH	15.000				
60403800	LIDS T1 CL	EACH	50.000				
60404940	FR & GRATES T23	EACH	5.000				
60404950	FR & GRATES T24	EACH	6.000				
66900200	NON SPL WASTE DISPOSL	CU YD	25.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	1.000				
67000400	ENGR FIELD OFFICE A	CAL MO	6.000				
67100100	MOBILIZATION	L SUM	1.000				
*ADD 70100310	TRAF CONT-PROT 701421	L SUM	1.000				

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Route
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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70102625	TR CONT & PROT 701606	L SUM	1.000				
70102630	TR CONT & PROT 701601	L SUM	1.000				
70102632	TR CONT & PROT 701602	L SUM	1.000				
70102635	TR CONT & PROT 701701	L SUM	1.000				
70102640	TR CONT & PROT 701801	L SUM	1.000				
70300100	SHORT TERM PAVT MKING	FOOT	11,252.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	4,114.000				
70300220	TEMP PVT MK LINE 4	FOOT	99,215.000				
70300240	TEMP PVT MK LINE 6	FOOT	20,326.000				
70300250	TEMP PVT MK LINE 8	FOOT	728.000				
70300260	TEMP PVT MK LINE 12	FOOT	2,936.000				
70300280	TEMP PVT MK LINE 24	FOOT	1,985.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	54,740.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	4,114.000				
78000200	THPL PVT MK LINE 4	FOOT	99,215.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78000400	THPL PVT MK LINE 6	FOOT	20,326.000				
78000500	THPL PVT MK LINE 8	FOOT	728.000				
78000600	THPL PVT MK LINE 12	FOOT	2,936.000				
78000650	THPL PVT MK LINE 24	FOOT	1,985.000				
78100100	RAISED REFL PAVT MKR	EACH	2,529.000				
*ADD 78300100	PAVT MARKING REMOVAL	SQ FT	50.000				
78300200	RAISED REF PVT MK REM	EACH	2,529.000				
81028200	UNDRGRD C GALVS 2	FOOT	11.000				
85000200	MAIN EX TR SIG INSTAL	EACH	1.000				
87301215	ELCBL C SIGNAL 14 2C	FOOT	214.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	228.000				
87301900	ELCBL C EGRDC 6 1C	FOOT	21.000				
87500600	TS POST 10	EACH	1.000				
87800100	CONC FDN TY A	FOOT	4.000				
87900200	DRILL EX HANDHOLE	EACH	1.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
88102717	PED SH LED 1F BM CDT	EACH	2.000				
*REV 88600600	DET LOOP REPL	FOOT	10,602.000				
88800100	PED PUSH-BUTTON	EACH	2.000				

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MATERIAL TRANSFER DEVICE (BDE)

Effective: June 15, 1999

Revised: August 1, 2014

Description. This work shall consist of placing _____ Polymerized HMA Surface Course, SMA, N80, according to Section 406 of the Standard Specifications and Special Provisions _____, except that these materials shall be placed using a material transfer device (MTD).

Materials and Equipment. The MTD shall have a minimum surge capacity of 15 tons (13.5 metric tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following:

- (a) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage. MTDs having paver style hoppers shall have a horizontal bar restraint placed across the foldable wings which prevents the wings from being folded.
- (b) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 14 tons (12.7 metric tons).
- (c) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger or two full-length longitudinal paddle mixers designed for the purpose of re-mixing the hot-mix asphalt (HMA). The longitudinal paddle mixers shall be located in the paver hopper insert.

CONSTRUCTION REQUIREMENTS

General. The MTD shall be used for the placement of _____ all Polymerized HMA Surface Course, SMA, N80 placed with a paver _____. The MTD speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

Use of a MTD with a roadway contact pressure exceeding 25 psi (172 kPa) will be limited to partially completed segments of full-depth HMA pavement where the thickness of binder in place is 10 in. (250 mm) or greater.

Structures. The MTD may be allowed to travel over structures under the following conditions:

- (a) Approval will be given by the Engineer.
- (b) The vehicle shall be emptied of HMA material prior to crossing the structure and shall travel at crawl speed across the structure.
- (c) The tires of the vehicle shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure.

Method of Measurement. This work will be measured for payment in tons (metric tons) for _____ all Polymerized HMA Surface Course, SMA, N80 _____ materials placed with a material transfer device.

Added 9/8/14

Basis of Payment. This work will be paid for at the contract unit price per ton (metric ton) for MATERIAL TRANSFER DEVICE.

The various HMA mixtures placed with the MTD will be paid for as specified in their respective specifications. The Contractor may choose to use the MTD for other applications on this project; however, no additional compensation will be allowed.

STONE MATRIX ASPHALT (SMA) (DIST 1)

Effective: April 1, 1997

Revised: November 1, 2013

Description. This Special Provision establishes and describes the responsibilities of the Contractor in producing and constructing Polymerized Hot Mix Asphalt Binder Course, Stone Matrix Asphalt, N 80, or Polymerized Hot Mix Asphalt Surface Course, Stone Matrix Asphalt, N 80. The work shall be according to Sections 1003, 1004, 1011, 1102, 406, 1030, and 1032 except as modified herein.

Materials.

Revise the last sentence of the first paragraph of Article 1003.03 (a):

“Fine aggregate for SMA shall consist of Class B Quality stone sand.”

Revise the following note in Article 1004.03 (c) to read:

“3/ The coarse aggregate gradation(s) used shall be capable of being combined with FA 20 stone sand and mineral filler to meet the approved mix design and the mix requirements noted herein.”

Revise Article 1004.03 (e) to read:

“Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 .”

Add the following to Article 1011.01 (c):

“Mineral filler shall be commercially manufactured mineral filler meeting gradation requirements of this article and the following additional requirement: Collected HMA baghouse dust may be used as Mineral Filler provided it meets the gradation outlined in this article and a separate mix design is created.”

Delete last sentence of second paragraph of Article 1102.01(a) (13) a.

(b) Fiber Additive (Note 4)”

Added 9/8/14

Add the following to Note 4 in Article 1030.02:

Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T 305 requirements. The RAS shall be from a certified source that produces either Type 1 or Type 2. Material shall be in accordance with the District's special provision for Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles (D-1).

The actual dosage rate will be determined by the Engineer.”

Revise the following note under Table 1 in Article 1032.05 (b) of Standard Specification:

When SBS/SBR PG 76-22 or SBS/SBR PG 76-28 is specified for mixtures IL-4.75 or SMA, the elastic recovery shall be a minimum of 80.”

Mix Design.

The use of Reclaimed Asphalt Pavement (RAP) and use of Recycled Asphalt Shingles (RAS) will be permitted concurrently in the production of SMA mixtures. Material shall be in accordance with Special Provision for Recycled Asphalt Pavement & Recycled Asphalt Shingles (D-1).

The drain down shall be determined at the JMF Asphalt Binder content at the mixing temperature plus 30 °F.

Each specific SMA mixture design shall be submitted to and verified by the Department as detailed in the Department's current "Bituminous Mixture Design Verification Procedure". The Contractor shall submit samples of all appropriate materials to the Department at least six weeks prior to production for mixture design verification.

The polymer asphalt supplier shall provide the Contractor with the temperature viscosity curves.

The Contractor shall supply the average gradation and the gradation ranges (including the Master Band on the critical sieve, if required) for each aggregate and asphalt binder content and gradations for each recycled products designated for use in the mixture. This information shall be used to judge whether the aggregates are compatible to produce an acceptable mix.

Plant Requirements.

Asphalt Cement. The polymer modified asphalt cement shall be shipped, maintained and stored at the mix plant according to the manufacturer's requirements. Polymer asphalt cement shall be placed in an empty tank and not blended with other asphalt cements.

Added 9/8/14

Mineral filler shall not be stored in the same silo as collected dust. Replace second paragraph in Article 1102.01 (a) (13) a.:

“Only dust collected during the production of SMA may be returned to the SMA mixture. Any additional minus No. 200 (0.075 mm) material needed to produce the SMA shall be mineral filler meeting the requirements stated herein. As an option, collected bag-house dust may be used in lieu of manufactured mineral filler, provided; 1) there is enough available for the production of the SMA mix for the entire project and 2) a mix design was prepared with collected bag-house dust.”

1.:

The batch size shall not exceed 75 percent of pugmill size as rated by the Department.

The fibers are to be uniformly distributed prior to the injection of asphalt cement into the mixes.”

Add the following to Article 1102.01(a) (13) b. 2.:

“The fiber shall be added to the aggregate and uniformly dispersed prior to the injection of asphalt cement

Fiber Supply System: The fiber system shall automatically adjust the feed rate to maintain the material within this tolerance at all times.”

Replace the following in Article 1102.014 (a) (13):

“c. Hot-Mix Storage. The mixture shall not be stored more than four hours without the approval of the Engineer. The Engineer will assess the drain down of the mix in making this determination.”

Mix Production.

The mixtures shall be produced at a temperature range recommended by the polymer asphalt supplier and approved by the Engineer to allow adequate compaction. The actual production temperature will be selected from the range by the Engineer based on individual plant characteristics and modifier used in the mixtures.

A manufacturer's representative from the polymer asphalt cement producer shall be present during each polymer mixture start-up and shall be available at all times during production and lay-down of the mix. A manufacturer's representative for the supplier/manufacture of the fibers and the equipment to introduce fibers into the mixture shall be present for calibration and first day of production (test strip).

Added 9/8/14

Hauling/Laydown Equipment.

The Contractor shall provide a release agent that minimizes sticking to equipment and is acceptable to the Engineer. The Contractor shall furnish a laborer to ensure that all truck beds are clean and no excess release agent is used prior to being loaded. All trucks shall be insulated and tarped when hauling the mixture to the paver.

Add after second sentence of Table 1 Note 5 in Article 406.07 (a) the following:

“Except one of the T_B shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm).”

Additional breakdown rollers will be required if compaction is not achieved using the speeds listed in Article 406.07.

Mix Placement.

Add the following to Article 406.06 (b):

“(3) Special Conditions for SMA

- a. TSMA mixture shall be placed on a dry surface when the temperature of the roadbed is above 60 °F (15 °C).
- b. The mixture shall be placed at 325 °F (152 °C) or a minimum mixture temperature recommended by the polymer asphalt supplier and approved by the Engineer. The mixture temperature shall be measured in the truck just prior to placement in the paver.”

Add to the end of the third paragraph of Article 406.06 (e) the following:

For SMA mixtures, Tthe paver speed shall not exceed 25 ft/min (8.8 m/min) during placement, provided the pavement shows no signs of rippling, chatter, or other distresses.”

Compaction shall commence immediately after the mixture has been placed. Compaction shall continue until the required density range has been achieved. Care shall be taken to avoid excessive aggregate breakage.

A QC/QA mixture Test Strip will be required. The Test Strip shall be constructed at a location approved by the Engineer to determine the mix properties, density, and laydown characteristics. An offsite test strip will be required if WMA technology is used. These test results and visual inspections on the mixture shall be used to make corrective adjustments if necessary.

Prior to the start of mix production and placement, the Engineer will review and approve all test strip results and rolling pattern. The test strip shall be constructed by the standard method except for the following changes:

Added 9/8/14

- (a) The Test Strip shall consist of approximately 400 tons (375 metric tons). It shall contain two growth curves which shall be compacted by a static steel-wheeled roller
- (1) Compaction Temperature. In order to make an accurate analysis of the density potential of the HMA mixture, the temperature of the mixture on the pavement at the beginning of the growth curve shall be 325 °F (152 °C).
 - (2) Compaction and Testing. The Engineer will specify the roller(s) speed and number of passes required to obtain a completed growth curve. The nuclear gauge shall be placed near the center of the hot mat and the position marked for future reference. With the bottom of the nuclear gauge and the source rod clean, a 15 seconds nuclear reading (without mineral filler) shall be taken after each pass of the roller. Rolling shall continue until the maximum density is achieved and three consecutive passes show no appreciable increase in density or no evidence of destruction of the mat. The growth curve shall be plotted. No testing of initial passes shall be taken until the fourth pass is completed.
 - (3) Final Testing. After the growth curve information is obtained, a final one minute nuclear reading, using mineral filler to eliminate surface voids, shall be taken at the marked position. This reading is used to adjust the maximum density reading obtained during the growth curve.
- (b) Documentation. The Test Strip and rolling pattern information (including growth curves) will be tabulated by the contractor and the original report submitted to the Engineer. Any change to the rolling pattern shall be approved by the Engineer.

The density of the finished SMA binder course shall be measured either by nuclear test methods or from cores obtained by the contractor at random locations. For the SMA surface course mixes containing steel slag aggregate only the core method will be accepted.

If the nuclear density potential of the mixture does not exceed 91.0 percent, the operation will cease until all test data is analyzed or a new mix design is produced.

In addition, other aspects of the mixture, such as appearance, segregation, uneven texture, flushing, or other evidence of mix problems, should be noted and corrective action taken immediately. The Engineer will determine the acceptability of the placed mixture. Unacceptable areas will be removed and replaced by the Contractor at no additional cost to the Department.

Added 9/8/14

Control Charts/Limits.

Add and revise the following to Control Limits Table in Article 1030.05(d) (4) of the Standard Specifications:

“For SMA mixtures, Control charts/limits shall be according to QC/QA requirements except density shall be plotted on the control charts within the following control limits:

Control Limits	
SMA	
<u>Parameter</u>	<u>Individual Test</u>
Density	94 % - 97 %”

Basis of Payment.

Add the following to the end of Article 406.14:

“The plan quantities shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb} .”

The test strip will be paid for at the contract unit price each for CONSTRUCTING TEST STRIP, which price shall not include the 400 tons (360 metric tons) of mix, as well as the appropriate testing, which will be paid for at the unit price in the contract for the item being placed.

Added 9/8/14