



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

May 27, 2014

SUBJECT: Route FAU 1707 (78th Avenue)
Project M-4003(323)
Section 14-00065-00-RS (Bridgeview)
Cook County
Contract No. 61A46
Item No.48, June 13, 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. Revised Table of Contents and pages 33-37 of the special provisions.
2. Revised plan sheet 3

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


A handwritten signature in cursive script, appearing to read 'Ted B. Walschleger P.E.'.

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

SPECIAL PROVISIONS

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EGA Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 "Standard Specification for Performance Graded Asphalt Binder" for the grade shown on the plans. An ethylene-glycidyl-acrylate (EGA) terpolymer with a maximum of 0.3 percent polyphosphoric acid by weight of asphalt binder, shall be added to the base asphalt binder to achieve the specified performance grade. Asphalt modification at hot-mix asphalt plants will not be allowed. The modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in the following table for the grade shown on the plans.

Ethylene-Glycidyl-Acrylate (EGA) Modified Asphalt Binders		
Test	Asphalt Grade EGA PG 70-22 EGA PG 70-28	Asphalt Grade EGA PG 76-22 EGA PG 76-28
Separation of Polymer Illinois Test Procedure, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions.	4 (2) max.	4 (2) max.
TEST ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

~~HOT MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (BMPR)~~

~~Effective: January 1, 2012
 Revised: December 1, 2013~~



~~Description. This special provision describes the procedures for production, placement and payment of hot-mix asphalt (HMA). This work shall be according to the Standard Specifications except as modified herein. This special provision shall apply to HMA mixtures as listed in the following table.~~

Mixture/Use:	Hot-Mix Asphalt Surface Course, Mix "D", N50 (IL-9.5mm) / Resurfacing
Location:	Entire Project
Mixture/Use:	Polymerized Leveling Binder (Machine Method), IL-4.75, N50 / Resurfacing
Location:	Entire Project
Mixture/Use:	Hot-Mix Asphalt Surface Course, Mix "D", N50 (IL-9.5mm) / Driveways



Location:	Various Driveway Locations
Mixture/Use:	Hot-Mix Asphalt Base Course, (HMA Binder IL-19.0mm) / Driveways
Location:	Various Driveway Locations
Mixture/Use:	Class D Patches, Type I, II, III, IV (HMA Binder IL-19.0mm) / Patching
Location:	Various Patching Locations
Mixture/Use:	Hot-Mix Asphalt Patch HMA Binder; IL-19.0mm / Curb Patching
Location:	Various Curb Patching Locations

Exceptions may be approved for small tonnage less than 800 (725 metric) tons and miscellaneous mixture applications as defined by the Engineer.

- Delete Articles:
- 406.06(b)(1), 2nd Paragraph (Temperature requirements)
 - 406.06 (e), 3rd Paragraph (Pavers speed requirements)
 - 406.07 (Compaction)
 - 1030.05(a)(4, 5, 9,) (QC/QA Documents)
 - 1030.05(d)(2)a. (Plant Tests)
 - 1030.05(d)(2)b. (Dust-to-Asphalt and Moisture Content)
 - 1030.05(d)(2)d. (Small Tonnage)
 - 1030.05(d)(2)f. (HMA Sampling)
 - 1030.05(d)(3) (Required Field Tests)
 - 1030.05(d)(4) (Control Limits)
 - 1030.05(d)(5) (Control Charts)
 - 1030.05(d)(7) (Corrective Action for Field Tests (Density))
 - 1030.05(e) (Quality Assurance by the Engineer)
 - 1030.05(f) (Acceptance by the Engineer)
 - 1030.06(a), 3rd paragraph (Before start-up...)
 - 1030.06(a), 7th paragraph (After an acceptable...)
 - 1030.06(a), 8th paragraph (If a mixture...)
 - 1030.06(a), 9th paragraph (A nuclear/core...)

Definitions:

- (a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- (b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.
- (c) Pay Parameters: Pay Parameters shall be field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined aggregates bulk specific gravity (Gsb) from the mix design.
- (d) Mixture Lot. A lot shall begin once an acceptable test strip has been completed and the AJMF has been determined. If the test strip is waived, a subplot shall begin with the start of



production. A mixture lot shall consist of four sublots unless it is the last or only lot, in which case it may consist of as few as one sublot

- (e) Mixture Sublot. A mixture sublot for field VMA, voids, and Dust/AC will be a maximum of 1000 tons (910 metric tons).
 - If the remaining quantity is greater than 200 but less than 1000 tons, a sublot will consist of that amount.
 - If the remaining quantity is less than or equal to 200 tons, the quantity shall be combined with the previous sublot.
- (f) Density Interval. Density Intervals shall be every 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm).
- (g) Density Sublot. A sublot for density shall be the average of five consecutive Density Intervals. If a Density Interval is less than 200 ft (60 m), it will be combined with the previous Density Intervals.
 - If one or two Density Intervals remain outside a sublot, they shall be included in the previous sublot.
 - If three or more Density Intervals remain, they shall be considered a sublot.
- (h) Density Test: A density test consists of a core taken at a random longitudinal and random transverse offset within each Density Interval. The HMA maximum theoretical gravity (Gmm) will be based on the running average of four Department test results. Initial Gmm will be based on the average of the first four test results. If less than four Gmm results are available, use an average of all available Department Gmm test results.

The random transverse offset excludes a distance from each outer edge equal to the lift thickness or a minimum of 4 in. (100 mm). If a core is located within one foot of an unconfined edge, 2.0 percent density will be added to the density of that core.

Quality Control (QC) by the Contractor:

The Contractor's QC plan shall include the schedule of testing for both pay parameters and non-pay parameters required to control the product such as asphalt binder content and mixture gradation. The minimum test frequency shall be according to the following table.

Minimum Quality Control Sampling and Testing Requirements

Quality Characteristic	Minimum Test Frequency
Mixture Gradation	1 per sublot
Asphalt Binder Content	
Dust/AC Ratio	
Field VMA	





Voids	G _{mb}	
	G _{mm}	

The Contractor's splits in conjunction with other quality control tests shall be used to control production.

The Contractor shall submit split jobsite mix sample test results to the Engineer within 48 hours of the time of sampling. All QC testing shall be performed in a qualified laboratory by personnel who have successfully completed the Department's HMA Level I training.

Quality Assurance (QA) by the Engineer:

Voids, field VMA and Dust/AC ratio: The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the "PFP Hot-Mix Asphalt Random Jobsite Sampling" procedure.

Density: The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the four inch cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the "PFP and QCP Random Density Procedure". The locations will be identified after final rolling and cores shall be obtained under the supervision of the Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

The Engineer will witness and secure all mixture and density samples. The Contractor shall transport the secured sample to a location designated by the Engineer.

The Engineer will test one or all of the randomly selected split samples from each lot for voids, field VMA and dust/AC ratio. The Engineer will test a minimum of one sample per project. The Engineer will test all of the pavement cores for density. All QA testing will be performed in a qualified laboratory by personnel who have successfully completed the Department's HMA Level I training. QA test results will be available to the Contractor within 10 working days from receipt of secured cores and split mixture samples.

The Engineer will maintain a complete record of all Department test results and copies will be provided to the Contractor with each set of subplot results. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

If the QA results do not meet the 100% subplot pay factor limits or do not compare to QC results within the precision limits listed below, the Engineer will test all split mix samples for the lot.

Test Parameter	Limits of Precision
G _{mb}	0.030
G _{mm}	0.026



Field VMA	1.0 %
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Acceptance by the Engineer: All of the Department's tests shall be within the acceptable limits listed below:

Parameter		Acceptable Limits
Field VMA		-1.0 – +3.0% ^{1/}
Voids		2.0 – 6.0%
Density:	IL-9.5, IL-12.5, IL-19.0, IL-25.0, IL-4.75, IL-9.5FG ^{3/}	90.0 – 98.0%
	SMA	92.0 – 98.0%
Dust / AC Ratio		0.4 – 1.6 ^{2/}

- 1/ Based on minimum required VMA from mix design
- 2/ Does not apply to SMA.
- 3/ Acceptable density limits for IL-9.5FG placed less than 1.25 in. shall be 89.0% - 98.0%

In addition, no visible pavement distresses shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

Basis of Payment: Payment will be based on the calculation of the Composite Pay Factor using QA results for each mix according to the "QCP Payment Calculation" document.

Dust / AC Ratio. A monetary deduction will be made using the pay adjustment table below for dust/AC ratios that deviate from the 0.6 to 1.2 range. If the tested subplot is outside of this range, the Department will test the remaining sublots for Dust / AC pay adjustment.

Dust / AC Pay Adjustment Table^{1/}

Range	Deduct / subplot
$0.6 \leq X \leq 1.2$	\$0
$0.5 \leq X < 0.6$ or $1.2 < X \leq 1.4$	\$1000
$0.4 \leq X < 0.5$ or $1.4 < X \leq 1.6$	\$3000
$X < 0.4$ or $X > 1.6$	Shall be removed and replaced

1/ Does not apply to SMA.

5-20-2014

HOT-MIX ASPHALT – PRIME COAT (D-1)

Effective: February 19, 2013
 Revised: April 1, 2014

Revise Note 1 of Article 406.02 of the Standard Specifications to read: