February 18, 2014

SUBJECT: FAP Route 604 (IL 159)

Project ACF-0604 (025)

Section (103, 125) RS-2, BR-2

Madison County Contract No. 76G25

Item No. 036, February 28, 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.

- Revised Recurring Special Provisions Page
- 2. Revised Table of Contents page ii
- 3. Revised page 9 of Special Provisions
- 4. Add pages 100-110 to the Special Provisions
- 5. Revised Schedule of Prices
- 6. Revised plans sheets No. 2
- 7. Added plans sheet No. 30

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

By: Ted B. Walschleger, P. E.

Ted Jaluchya P.E.

Engineer of Project Management

cc: Jeffery Keirn, Region 5, District 8; N. R. Stoner; Matt Mueller, Tim Kell; D.

Carl Puzey: Estimates

HM/kf

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

CHE	CK S	SHEET#	GE NO
1	Х	Additional State Requirements for Federal-Aid Construction Contracts (Eff. 2-1-69) (Rev. 1-1-10)	
2	Χ	Subletting of Contracts (Federal-Aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	152
3	Χ		
4		Specific Equal Employment Opportunity Responsibilities Non Federal-Aid Contracts (Eff. 3-20-69) (Rev. 1-1-94)	163
5		Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 1-1-13)	168
6		Asbestos Bearing Pad Removal (Eff. 11-1-03)	
7		Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal (Eff. 6-1-89) (Rev. 1-1-09)	174
8		Haul Road Stream Crossings, Other Temporary Stream Crossings, and In-Stream Work Pads (Eff. 1-2-92) (Rev. 1-1-98)	
9		Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-07)	
10		Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-07)	
11		Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	
12		Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 1-1-07)	
13		Hot-Mix Asphalt Surface Correction (Eff. 11-1-87) (Rev. 1-1-09)	
14		Pavement and Shoulder Resurfacing (Eff. 2-1-00) (Rev. 1-1-09)	
15		PCC Partial Depth Hot-Mix Asphalt Patching (Eff. 1-1-98) (Rev. 1-1-07)	191
16		Patching with Hot-Mix Asphalt Overlay Removal (Eff. 10-1-95) (Rev. 1-1-07)	
17		Polymer Concrete (Eff. 8-1-95) (Rev. 1-1-08)	
18		PVC Pipeliner (Eff. 4-1-04) (Rev. 1-1-07)	
19		Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-07)	
20	Х		
21		Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-12)	
22		Temporary Modular Glare Screen System (Eff. 1-1-00) (Rev. 1-1-07)	204
23	Χ	Temporary Portable Bridge Traffic Signals (Eff. 8-1-03) (Rev. 1-1-07)	206
24		Work Zone Public Information Signs (Eff. 9-1-02) (Rev. 1-1-07)	
25		Night Time Inspection of Roadway Lighting (Eff. 5-1-96)	209
26		English Substitution of Metric Bolts (Eff. 7-1-96)	210
27		English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	
28		Calcium Chloride Accelerator for Portland Cement Concrete (Eff. 1-1-01) (Rev. 1-1-13)	
29		Portland Cement Concrete Inlay or Overlay for Pavements (Eff. 11-1-08) (Rev. 1-1-13)	
30		Quality Control of Concrete Mixtures at the Plant (Eff. 8-1-00) (Rev. 1-1-14)	
31	Х		224
32		Digital Terrain Modeling for Earthwork Calculations (Eff. 4-1-07)	
33	Х		242
34		Preventive Maintenance – Bituminous Surface Treatment (Eff. 1-1-09) (Rev. 1-1-12)	
35		Preventive Maintenance – Cape Seal (Eff. 1-1-09) (Rev. 1-1-12)	
36		Preventive Maintenance – Micro-Surfacing (Eff. 1-1-09) (Rev. 1-1-12)	
37		Preventive Maintenance – Slurry Seal (Eff. 1-1-09) (Rev. 1-1-12)	
38		Temporary Raised Pavement Markers (Eff. 1-1-09) (Rev. 1-1-14)	
39		Restoring Bridge Approach Pavements Using High-Density Foam (Eff. 1-1-09) (Rev. 1-1-12)	286

Project ACF-0604(025) Section (103, 125) RS-2, 125-BR-2 Madison County Contract No. 76G25 PROGRESS PAYMENTS (BDE)55 QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)......56 REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)......57 TRACKING THE USE OF PESTICIDES (BDE)......61 TRAINING SPECIAL PROVISIONS (BDE)61 IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)64 WEEKLY DBE TRUCKING REPORTS (BDE)......70 BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID).......70 FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)......73 404 PERMIT77 RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE) 100

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)......109

Revised 2/18/14

FAP Route 604 (IL 159)

Special attention is called to Articles 107.09 and 107.14 of the "Standard Specifications for Road and Bridge Construction" and the following Highway Standards relating to traffic control:

701006	701301	701306	701311	701321	701326
701336	701701	701901	704001		

In addition, the following Special Provision(s) will also govern traffic control for this project:

Construction and Maintenance Sign Supports
Traffic Control and Protection Standard 701321, Special
Wide Load Signing
Installation of Temporary Concrete Barriers and/or Temporary Bridge Rail

TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)

This work shall be done according to Section 701 of the Standard Specifications and the Traffic Control Plan as shown in the plans, and as specified within.

If sand filled impact attenuators are utilized they shall be filled with "free-flow" sand and the use of sacked sand shall not be permitted. These shall be located as shown in the Traffic Control Plan. If the Contractor chooses, he/she may use another approved NCHRP-350 device.

This item shall include all traffic control required for construction of structure number 060-0130 as shown on Highway Standard 701321 and supplemented with the construction staging and traffic control plans. This item shall also include all traffic control and advance signing on IL 159/IL 143, IL 143 and Old Alton Edwardsville Road approaching the stage construction from the south for the structure including, but not limited to, Traffic Control and Protection, Standard 701701 as shown on the plans.

This traffic control and protection will be paid for at the contract unit price per each for TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL).

WIDE LOAD SIGNING

This work shall be done according to the Wide Load Signing Plan as shown in the plans, and shall be paid for as WIDE LOAD SIGNING.

Revised 2/18/14

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012 Revise: November 1, 2013

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
 - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
 - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District provide documentation on the quality of the RAP to clarify the appropriate stockpile.

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix into which the FRAP will be incorporated.

Mixture FRAP will be used in:	Sieve Size that 100% of FRAP					
	Shall Pass					
IL-25.0	2 in. (50 mm)					
IL-19.0	1 1/2 in. (40 mm)					
IL-12.5	1 in. (25 mm)					
IL-9.5	3/4 in. (20 mm)					
IL-4.75	1/2 in. (13 mm)					

- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, HMA (High or Low ESAL), or "All Other" (as defined by Article 1030.04(a)(3)) mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.
 - (1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
 - (2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Illinois Department of Transportation Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a \leq 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

(a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	FRAP/Homogeneous /Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	±8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	± 4.0 %
Asphalt Binder	\pm 0.4 % ^{1/}	± 0.5 %
G _{mm}	± 0.03	

1/ The tolerance for FRAP shall be \pm 0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

(b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
 - (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
 - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

1031.06 Use of RAP/FRAP and/or RAS in HMA. The use of RAP/FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

- (a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.
 - (1) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
 - (2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.
 - (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.
 - (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
 - (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
 - (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given N Design.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.
 - (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures 1/, 2/	RAP/RAS Maximum ABR %							
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified					
30	30	30	10					
50	25	15	10					
70	15	10	10					
90	10	10	10					
105	10	10	10					

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the RAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- (2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS table listed below for the given N design.

FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures	FRAP/RAS Maximum ABR %								
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified 3/, 4/						
30	40	40	10						
50	40	30	10						
70	30	20	10						
90	30	20	10						
105	30	15	10						

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

1031.08 HMA Production. HMA production utilizing RAP/FRAP and/or RAS shall be as follows.

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

(b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

When producing HMA containing RAS, a positive dust control system shall be utilized.

- (c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.
 - (1) Dryer Drum Plants.
 - a. Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
 - f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
 - g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)
 - (2) Batch Plants.
 - a. Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

- d. Mineral filler weight to the nearest pound (kilogram).
- f. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders Type B shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

"202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

State Job # - C-98-026-13

Project Number

Route

County Name - MADISON- -

ACF-0604/025/

FAP 604

Code - 119 - - District - 8 - -

*REVISED: FEBRUARY 18, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	х	Unit Price	=	Total Price
X5121800	PERM STEEL SHT PILING	SQ FT	2,512.000				
X7010202	TC-PROT 701321 SPL	EACH	1.000				
X7200200	WIDE LOAD SIGNING	L SUM	1.000				
Z0012754	STR REP CON DP = < 5	SQ FT	248.000				
Z0016002	DECK SLAB REP (FD-T2)	SQ YD	100.000				
Z0016200	DECK SLAB REP (PART)	SQ YD	100.000				
Z0070100	SURV MONUMENT COV ASY	EACH	2.000				
Z0076600	TRAINEES	HOUR	1,000.000		0.800		800.000
*REV Z0076604	TRAINEES TPG	HOUR	1,000.000		15.000		15,000.000
20200500	EARTH EXC WID	CU YD	23.000				
20200600	EXC & GR EX SHOULDER	UNIT	220.000				
28100707	STONE DUMP RIP CL A4	SQ YD	656.000				
35600708	HMA BC WID 8	SQ YD	958.000				
40200800	AGG SURF CSE B	TON	70.000				
40600200	BIT MATLS PR CT	TON	29.300				

State Job # - C-98-026-13

MADISON- - Project Number ACF-0604/025/

Route

Code - 119 - -

FAP 604

District - 8 - -

County Name -

*REVISED: FEBRUARY 18, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	х	Unit Price	=	Total Price
40600300	AGG PR CT	TON	140.000				
40600990	TEMPORARY RAMP	SQ YD	195.000				
40603340	HMA SC "D" N70	TON	10,617.000				
40800020	BIT MATLS PR CT	TON	0.200				
40800030	AGG PR CT	TON	1.000				
40800050	INCIDENTAL HMA SURF	TON	23.000				
44000155	HMA SURF REM 11/2	SQ YD	89,661.000				
44000158	HMA SURF REM 21/4	SQ YD	2,984.000				
44004250		SQ YD	413.000				
44201815		SQ YD	180.000				
44201821	CL D PATCH T4 14	SQ YD	32.000				
48102100		TON	2,068.000				
48203029	HMA SHOULDERS 8	SQ YD	11.882.000				
			,				
48203100	HMA SHOULDERS	TON	23.000				
50102400	CONC REM	CU YD	33.500			1	

State Job # - C-98-026-13

Project Number

Route

County Name - MADISON- -

ACF-0604/025/

FAP 604

Code - 119 - - District - 8 - -

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Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
50105220	PIPE CULVERT REMOV	FOOT	16.000				
50300225	CONC STRUCT	CU YD	34.600				
50300255	CONC SUP-STR	CU YD	36.700				
50300300	PROTECTIVE COAT	SQ YD	369.000				
50800205	REINF BARS, EPOXY CTD	POUND	3,630.000				
50800515	BAR SPLICERS	EACH	56.000				
52000110	PREF JT STRIP SEAL	FOOT	199.000				
542D0217	P CUL CL D 1 12	FOOT	16.000				
54215547	MET END SEC 12	EACH	3.000				
58100200	WATERPRF MEMBRANE SYS	SQ YD	1,387.000				
63000003	SPBGR TY A 9FT POSTS	FOOT	3,800.000				
63000025	SPBGR ATTACH TO STR	FOOT	25.000				
63000350	LSG OV CUL 12'6" SPAN	FOOT	1,175.000				
63000360	LSG OV CUL 18'9" SPAN	FOOT	343.750				
63100045	TRAF BAR TERM T2	EACH	2.000				

State Job # - C-98-026-13

Project Number

Route

County Name - MADISON- - Code - 119 - -

ACF-0604/025/

FAP 604

District - 8 - -

*REVISED: FEBRUARY 18, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	X	Unit Price	=	Total Price
63100087	TRAF BAR TERM T6A	EACH	10.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	25.000				
63100169	TR BAR TRM T1 SPL FLR	EACH	1.000				
63200310	GUARDRAIL REMOV	FOOT	6,144.000				
64200108	SHOULDER RUM STRIP 8	FOOT	4,344.000				
67000400	ENGR FIELD OFFICE A	CAL MO	12.000				
67100100	MOBILIZATION	L SUM	1.000				
70100405	TRAF CONT-PROT 701321	EACH	1.000				
70100450	TRAF CONT-PROT 701201	L SUM	1.000				
70100460	TRAF CONT-PROT 701306	L SUM	1.000				
70100500	TRAF CONT-PROT 701326	L SUM	1.000				
70100600	TRAF CONT-PROT 701336	L SUM	1.000				
70106500	TEMP BR TRAF SIGNALS	EACH	2.000				
70106700	TEMP RUMBLE STRIPS	EACH	9.000				
70300100	SHORT TERM PAVT MKING	FOOT	8,028.000				

State Job # - C-98-026-13

County Name - MADISON- - Project Number ACF-0604/025/

Route FAP 604

Code - 119 - -

District - 8 - - *REVISED: FEBRUARY 18, 2014

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70300210	TEMP PVT MK LTR & SYM	SQ FT	166.000				
70300220	TEMP PVT MK LINE 4	FOOT	90,358.000				
70300260	TEMP PVT MK LINE 12	FOOT	263.000				
70300280	TEMP PVT MK LINE 24	FOOT	68.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	31,288.000				
70400100	TEMP CONC BARRIER	FOOT	837.500				
70400200	REL TEMP CONC BARRIER	FOOT	837.500				
70600250	IMP ATTN TEMP NRD TL3	EACH	3.000				
70600260	IMP ATTN TEMP FRN TL3	EACH	1.000				
70600332	IMP ATTN REL FRN TL3	EACH	1.000				
70600350	IMP ATTN REL NRD TL3	EACH	3.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	166.000				
78000200	THPL PVT MK LINE 4	FOOT	90,358.000				
78000600	THPL PVT MK LINE 12	FOOT	263.000				
78000650	THPL PVT MK LINE 24	FOOT	68.000				

State Job # - C-98-026-13

Project Number ACF-0604/025/ Route FAP 604

Code - 119 - -

District - 8 - -

County Name -

*REVISED: FEBRUARY 18, 2014

Section Number - (103,125)RS-2, 125-BR-2

MADISON- -

Item Number	Pay Item Description	Unit of Measure	Quantity	х	Unit Price	=	Total Price
78100100	RAISED REFL PAVT MKR	EACH	473.000				
78200410	GUARDRAIL MKR TYPE A	EACH	92.000				
78200520	BAR WALL MKR TYPE B	EACH	14.000				
78200530	BAR WALL MKR TYPE C	EACH	14.000				
78201000	TERMINAL MARKER - DA	EACH	26.000				
78300100	PAVT MARKING REMOVAL	SQ FT	445.000				
78300200	RAISED REF PVT MK REM	EACH	473.000				
80300100	LOCATE UNDERGR CABLE	FOOT	80.000				
88600600	DET LOOP REPL	FOOT	1,002.000				