Florida Department of Transportation

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SECRETARY

August 6, 2010

Monica Gourdine
Program Operations Engineer
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: Office of Design, Specifications
Section 234
Proposed Specification: **2340100 Superpave Asphalt Base.**

Dear Ms. Gourdine:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

These changes were proposed by Greg Sholar of the State Materials Office for general cleanup and formatting and to delete references to Option 2 Mixture Acceptance, as it has been deleted from Section 334.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via Email to ST986RP or rudy.powell@dot.state.fl.us.

If you have any questions relating to this specification change, please call Rudy Powell, State Specifications Engineer at 414-4280.

Sincerely,

Rudy Powell, Jr., P.E.
State Specifications Engineer

RP/dt
Attachment
cc: Gregory Jones, Chief Civil Litigation
Florida Transportation Builders' Assoc.
State Construction Enginee

SUPERPAVE ASPHALT BASE.
(REV *6*~~5~~-*11*~~24~~-10)

ARTICLE 234-1 (Page 218) is deleted and the following substituted:

234-1 Description.

Construct a Superpave Asphalt Concrete base course as defined in these Specifications. Base course mixes are designated as B-12.5. The Contractor may use a Type ~~-~~SP-12.5 mixture, (Traffic Level B or C) in lieu of a Type B-12.5.

~~On projects with only Traffic Level A and/or B asphalt mixtures, select Option 1 or Option 2 Mixture Acceptance as specified in 234-5. The selection shall be indicated in the Contractor Quality Control Plan in accordance with Section 105 and shall apply to all mixes, including base, structural and friction course mixes, on the entire project. If a contract contains Traffic Level A and/or B asphalt mixtures and also contains Traffic Level C, D, and/or E asphalt mixtures, accept the asphalt mixtures only under Option 1 Material Acceptance.~~

~~When Option 2 Mixture Acceptance is selected, the requirements of 330-2 will not apply, with the exception of the roadway requirements as defined in 330-2.2.~~

ARTICLE 234-5 (Page 219) is deleted and the following substituted:

234-5 Acceptance of the Mixture.

~~**234-5.1 Option 1 Mixture Acceptance*General*:** If Option 1 Mixture Acceptance is selected, t~~*T*he mixture will be accepted in accordance with the requirements of 334-5~~.1~~, *except*~~, with the following exceptions:~~

~~**234-5.1.1 Option 1 Acceptance Testing Exceptions:** D~~ *d*ensity testing for acceptance will not be performed in areas as defined in 334-5~~.1~~.1.2. In these situations compact the base in accordance with the rolling procedure (equipment and pattern) submitted as part of the Quality Control *(QC)* Plan and as approved by the Engineer. Use the permissible variations from longitudinal and transverse grades as specified in 200-7. The pay factor for LOTs where there are areas not requiring density testing will be prorated based on a pay factor of 1.00 for the tonnage of material in areas not requiring density testing and the actual pay factor for the tonnage of material in areas requiring density.

~~**234-5.2 Option 2 Mixture Acceptance:** If Option 2 Mixture Acceptance is selected, the mixture will be accepted in accordance with the requirements of 334-5.2 with the following exceptions:~~

~~**234-5.2.1 Option 2 Acceptance Testing Exceptions:** Density testing for acceptance will not be performed in areas as defined in 334-5.1.1.2.In these situations compact the base in accordance with the rolling procedure (equipment and pattern) as approved by the Engineer. Use the permissible variations from longitudinal and transverse grades as specified in 200-7.~~

ARTICLE 234-8 (of the Supplemental Specifications) is deleted and the following substituted:

234-8 Thickness Requirements.

234-8.1 General: The total thickness of the Type -B asphalt layer~~(s)~~ will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate based on the maximum specific gravity of the asphalt mix being used, as well as the minimum density level, as shown in the following equation:

$$\text{Spread rate (lbs. per square yard / yd}^2\text{)} = t \times G_{mm} \times 43.3$$

Where: t = Thickness (in.) (Plan thickness or individual layer thickness)

G_{mm} = Maximum specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-2.2. For target purposes only, spread rate calculations should be rounded to the nearest whole number.

234-8.2 Spread Rate Tolerance: Control the average spread rate on a daily basis to within *plus or minus* ~~±~~ 5% of the target spread rate for the individual layer(s) established by the Engineer. When the average daily spread rate is outside this tolerance from the target, adjust the spread rate to the required value established by the Engineer. The Engineer will periodically verify the spread rate at the job site during the paving operation.

234-8.3 Allowable Deficiencies: The Engineer will allow a maximum deficiency from the specified spread rate for the total thickness as follows:

1. For pavement of a specified thickness of 2--1/2 inches or more: 50 lbs. *per square yard* ~~/sy~~.

2. For pavement of a specified thickness of less than 2--1/2 inches: 25 lbs. *per square yard* ~~/sy~~.

234-8.4 Pavement Exceeding Allowable Deficiency in Spread Rate: Where the deficiency in spread rate for the total thickness is: (1) in excess of 50 lbs. *per square yard* ~~/sy~~ for pavements with a specified thickness of 2--1/2 inches or more, or (2) in excess of 25 lbs. *per square yard* ~~/sy~~ for pavements with a specified thickness of less than 2--1/2 inches, the Engineer may require removal and replacement at no cost or may require a correction as specified in 234-8.5. The Engineer may require the Contractor to core the pavement for thickness in order to determine the area of pavement with deficient thickness.

As an exception to the above, the Contractor may leave pavement outside the main roadway in place without compensation when the Engineer allows, even though the deficiency exceeds the tolerance as specified above.

The Department will not compensate the Contractor for any pavement removed or for the work of removing such pavement.

234-8.5 Correcting Deficiency by Adding New Surface Material: In the event the total thickness as determined by the spread rate is excessively deficient as defined above and if approved by the Engineer for each particular location, correct the deficient thickness by adding new surface material and compacting it using a rolling pattern as approved by the Engineer. The Engineer will determine the area to be corrected and the thickness of new material added. Perform all overlaying and compacting at no expense to the Department.

SUPERPAVE ASPHALT BASE.
(REV 6-11-10)

ARTICLE 234-1 (Page 218) is deleted and the following substituted:

234-1 Description.

Construct a Superpave Asphalt Concrete base course as defined in these Specifications. Base course mixes are designated as B-12.5. The Contractor may use a Type SP-12.5 mixture, (Traffic Level B or C) in lieu of a Type B-12.5.

ARTICLE 234-5 (Page 219) is deleted and the following substituted:

234-5 Acceptance of the Mixture.

The mixture will be accepted in accordance with the requirements of 334-5, except density testing for acceptance will not be performed in areas as defined in 334-5.1.2. In these situations compact the base in accordance with the rolling procedure (equipment and pattern) submitted as part of the Quality Control (QC) Plan and as approved by the Engineer. Use the permissible variations from longitudinal and transverse grades as specified in 200-7. The pay factor for LOTs where there are areas not requiring density testing will be prorated based on a pay factor of 1.00 for the tonnage of material in areas not requiring density testing and the actual pay factor for the tonnage of material in areas requiring density.

ARTICLE 234-8 (of the Supplemental Specifications) is deleted and the following substituted:

234-8 Thickness Requirements.

234-8.1 General: The total thickness of the Type B asphalt layers will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate based on the maximum specific gravity of the asphalt mix being used, as well as the minimum density level, as shown in the following equation:

Spread rate (lbs. per square yard) = $t \times G_{mm} \times 43.3$

Where: t = Thickness (in.) (Plan thickness or individual layer thickness)

G_{mm} = Maximum specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-2.2. For target purposes only, spread rate calculations should be rounded to the nearest whole number.

234-8.2 Spread Rate Tolerance: Control the average spread rate on a daily basis to within plus or minus 5% of the target spread rate for the individual layer(s) established

by the Engineer. When the average daily spread rate is outside this tolerance from the target, adjust the spread rate to the required value established by the Engineer. The Engineer will periodically verify the spread rate at the job site during the paving operation.

234-8.3 Allowable Deficiencies: The Engineer will allow a maximum deficiency from the specified spread rate for the total thickness as follows:

1. For pavement of a specified thickness of 2-1/2 inches or more: 50 lbs. per square yard.

2. For pavement of a specified thickness of less than 2-1/2 inches: 25 lbs. per square yard.

234-8.4 Pavement Exceeding Allowable Deficiency in Spread Rate: Where the deficiency in spread rate for the total thickness is: (1) in excess of 50 lbs. per square yard for pavements with a specified thickness of 2-1/2 inches or more, or (2) in excess of 25 lbs. per square yard for pavements with a specified thickness of less than 2-1/2 inches, the Engineer may require removal and replacement at no cost or may require a correction as specified in 234-8.5. The Engineer may require the Contractor to core the pavement for thickness in order to determine the area of pavement with deficient thickness.

As an exception to the above, the Contractor may leave pavement outside the main roadway in place without compensation when the Engineer allows, even though the deficiency exceeds the tolerance as specified above.

The Department will not compensate the Contractor for any pavement removed or for the work of removing such pavement.

234-8.5 Correcting Deficiency by Adding New Surface Material: In the event the total thickness as determined by the spread rate is excessively deficient as defined above and if approved by the Engineer for each particular location, correct the deficient thickness by adding new surface material and compacting it using a rolling pattern as approved by the Engineer. The Engineer will determine the area to be corrected and the thickness of new material added. Perform all overlaying and compacting at no expense to the Department.