Florida Department of Transportation

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GOVERNOR

605 Suwannee Street
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JIM BOXOLD
SECRETARY

December 22, 2015

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section **320**
Proposed Specification: **3200603 Hot Mix Asphalt – Plant Methods and Equipment**

Dear Mr. Nguyen:

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

The changes are proposed by Richard Hewitt of the State Construction Office to more clearly define windrow paving temperature requirements (temperatures of mix in truckload and windrow) and tie temperature ranges to the mix design compaction temperatures rather than having one minimum temperature for all mix types. Removed use of infrared thermometer.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to daniel.scheer@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Daniel Scheer, P.E.
State Specifications Engineer

DS/ot
Attachment
cc: Florida Transportation Builders' Assoc.
State Construction Engineer

HOT MIX ASPHALT - PLANT METHODS AND EQUIPMENT.
(REV 11-~~6~~*12*-15)

SUBARTICLE 320-6.3.2 is deleted and the following substituted:

320-6.3.2 Test Frequency: The normal frequency for taking asphalt mix temperatures will be for each day, for each design mix on the first five loads and one out of every five loads thereafter. Take the temperature of the asphalt mix at the plant and at the roadway before the mix is placed at the normal frequency. Record the temperature on the front of the respective delivery ticket. The Engineer shall review the plant and roadway temperature readings and may take additional temperature measurements at any time.

If any single load at the plant or at the roadway is within the master range shown in Table 320-2 but does not meet the criteria shown in Table 320-3 (for single measurements or the average of five consecutive measurements), the temperature of every load will be monitored until the temperature falls within the specified tolerance range in Table 320-3; at this time the normal frequency may be resumed. For warm mix asphalt, the Contractor may produce the first five loads of the production day and at other times when approved by the Engineer, at a hot mix asphalt temperature not to exceed 330°F for purposes of heating the asphalt paver. For this situation, the upper tolerances of Tables 320-2 and 320-3 as applied to the warm mix asphalt mix design do not apply.

For windrow paving, *in addition to the truck load temperature measurements noted above,* perform windrow temperature measurements at a frequency of one measurement per 500 feet of windrow placed. Check the temperature of the windrow asphalt mixture using a quick-reading thermometer ~~or infrared thermometer~~ directly in front of the windrow material transfer vehicle, but not so close that paving must be stopped. Measure the temperature of the windrow beneath the exposed surface by shoveling away a portion of the windrow and then measuring the temperature. For windrow temperature measurements, the requirements of Table 320-2 and 320-3 apply~~, but in no case shall the temperature be below 280°F~~.

SUBARTICLE 320-6.3.3 is deleted and the following substituted:

320-6.3.3 Rejection Criteria: Reject any load or portion of a load of asphalt mix at the plant or at the roadway with a temperature outside of its respective master range shown in Table 320-2. Notify the Engineer of the rejection immediately.

Table 320-2	
Mix Temperature Master Range Tolerance	
Location	Acceptable Temperature Tolerance
Plant	Mixing Temperature ±30°F
Roadway *(mix in truck)*	Compaction Temperature ±30°F
Roadway (mix in windrow)	*Compaction Temperature +30°F, -40°F*

Table 320-3	
Mix Temperature Tolerance From Verified Mix Design	
Any Single Measurement	±25°F
Average of Any Five Consecutive Measurements	±15°F

HOT MIX ASPHALT - PLANT METHODS AND EQUIPMENT.
(REV 11-12-15)

SUBARTICLE 320-6.3.2 is deleted and the following substituted:

320-6.3.2 Test Frequency: The normal frequency for taking asphalt mix temperatures will be for each day, for each design mix on the first five loads and one out of every five loads thereafter. Take the temperature of the asphalt mix at the plant and at the roadway before the mix is placed at the normal frequency. Record the temperature on the front of the respective delivery ticket. The Engineer shall review the plant and roadway temperature readings and may take additional temperature measurements at any time.

If any single load at the plant or at the roadway is within the master range shown in Table 320-2 but does not meet the criteria shown in Table 320-3 (for single measurements or the average of five consecutive measurements), the temperature of every load will be monitored until the temperature falls within the specified tolerance range in Table 320-3; at this time the normal frequency may be resumed. For warm mix asphalt, the Contractor may produce the first five loads of the production day and at other times when approved by the Engineer, at a hot mix asphalt temperature not to exceed 330°F for purposes of heating the asphalt paver. For this situation, the upper tolerances of Tables 320-2 and 320-3 as applied to the warm mix asphalt mix design do not apply.

For windrow paving, in addition to the truck load temperature measurements noted above, perform windrow temperature measurements at a frequency of one measurement per 500 feet of windrow placed. Check the temperature of the windrow asphalt mixture using a quick-reading thermometer directly in front of the windrow material transfer vehicle, but not so close that paving must be stopped. Measure the temperature of the windrow beneath the exposed surface by shoveling away a portion of the windrow and then measuring the temperature. For windrow temperature measurements, the requirements of Table 320-2 and 320-3 apply.

SUBARTICLE 320-6.3.3 is deleted and the following substituted:

320-6.3.3 Rejection Criteria: Reject any load or portion of a load of asphalt mix at the plant or at the roadway with a temperature outside of its respective master range shown in Table 320-2. Notify the Engineer of the rejection immediately.

Table 320-2	
Mix Temperature Master Range Tolerance	
Location	Acceptable Temperature Tolerance
Plant	Mixing Temperature ±30°F
Roadway (mix in truck)	Compaction Temperature ±30°F
Roadway (mix in windrow)	Compaction Temperature +30°F, -40°F

Table 320-3	
Mix Temperature Tolerance From Verified Mix Design	
Any Single Measurement	±25°F
Average of Any Five Consecutive Measurements	±15°F