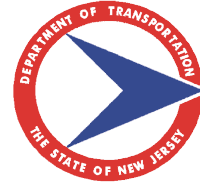


New Jersey Department of Transportation
1035 Parkway Avenue, PO Box 600, Trenton, New Jersey 08625-0600



Baseline Document Change Announcement

ANNOUNCEMENT: BDC24S-06

DATE: May 28, 2024

SUBJECT: Fiberless SMA and Binder Sampling
- **Revisions to the 2019 Standard Specifications for Road and Bridge Construction, Subparts 404.03.01, 902.05.01 and 902.05.03, and Subsections 1009.01 and 1009.03**

The 2019 Standard Specifications for Road and Bridge Construction Subparts 404.03.01 and 902.05.01, and 902.05.03 have been revised to ensure the test strips provided to the RE meet draindown and air void requirements. Also, it requires the use of WMA additives with Fiberless SMAs and to require the supplier to provide additional mixture design documentation.

In addition, Subpart 902.05.03, and Subsections 1009.01 and 1009.03 changes the specification from AASHTO T 40 to ASTM D 140 to allow for binder sampling after in-line blending.

The following revisions have been incorporated into the 2019 Standard Specifications via 2019 Standard Inputs, SI2019:

404.03 CONSTRUCTION

404.03.01 Stone Matrix Asphalt Surface Course

PART C IS CHANGED TO:

- C. Test Strip.** Construct a test strip as specified in 401.03.07.C. If using Fiberless SMA, construct a test strip prior to paving as specified in 401.03.07.C, except for the allowance to continue paving. Ensure that the test strip is at least 100 tons. Submit test strip results to the RE. The RE will analyze the test strip results in conjunction with the ME's results from the HMA plant to approve the test strip. Do not proceed with production paving until receiving written permission from the RE. The Contractor may need to construct multiple test strips in order to produce material that meets both the plant production requirements and the field density requirements as directed by the RE.

902.05 STONE MATRIX ASPHALT (SMA)

902.05.01 Composition of Mixture

THE 2ND PARAGRAPH IS CHANGED TO:

The composition of the SMA mixture is coarse aggregate, fine aggregate, mineral filler, mineral fibers or cellulose fibers, and polymer modified asphalt binder and may include a WMA additive. If the supplier utilizes a Fiberless SMA, the mineral or cellulose fibers may be removed and must utilize a WMA additive to properly reduce production temperature.

THE 9TH PARAGRAPH IS CHANGED TO:

If the asphalt supplier is to utilize a Fiberless SMA, the supplier must provide proper mixture design documentation, including a graph indicating the appropriate production temperature range where both draindown and air voids meet the material specifications. This graph should evaluate draindown and air voids using at least four temperature data points. If used, ensure that WMA additives or processes conform to 902.01.04. If a WMA additive is pre-blended in the asphalt binder, ensure that the asphalt binder meets the requirements of the specified grade after the addition of the WMA additive. If a WMA additive is added at the HMA plant, ensure that the addition of the additive will not negatively impact the grade of asphalt binder. Follow the manufacturer's recommendations for percentage of WMA additive needed. Do not use a controlled asphalt foaming system WMA for Fiberless SMA.

902.05.03 Sampling and Testing

PART B IS CHANGED TO:

- B. Sampling.** The ME will take a random sample from each 700 tons of production for volumetric acceptance testing and to verify composition. The ME will perform sampling according to AASHTO T 168, NJDOT B-2, or ASTM D 3665. During production at the plant, a sample of asphalt binder will be taken once every 3,500 tons or as directed by the ME. If a WMA additive is added at the HMA plant, asphalt binder sample will be taken after in-line blending.

1009.01 HMA PLANT

4. Equipment for Preparation of Asphalt Binder.

THE 4TH PARAGRAPH IN PART 4 IS CHANGED TO:

Provide valves according to ASTM D 140, except ensure that a sampling valve is also located in the lowest third of each storage tank. If any additive is added at the HMA plant, provide a sampling valve according to AASHTO M 156, Section 4.3.4.

1009.03 ASPHALT-RUBBER BINDER BLENDING EQUIPMENT

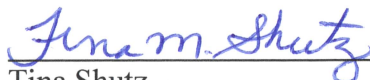
THE 5TH PARAGRAPH IS CHANGED TO:

Provide valves according to ASTM D 140, except ensure that a sampling valve is also located in the lowest third of each storage tank.

Implementation Code R (ROUTINE)

Changes must be implemented in all applicable Department projects scheduled for Final Design Submission at least one month after the date of the BDC announcement. This will allow designers to make necessary plan, specifications, and estimate/proposal changes without requiring the need for addenda or postponement of advertisement or receipt of bids.

Recommended By:



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Approved By:



Parth Oza, P.E.
Assistant Commissioner
Capital Program Management
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