



## **Materials Specifications & Virginia Test Methods (VTM's) 2015 Fall Conference**

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# Specifications



# Overview

- **Need for changes to specifications discussed with VDOT and industry personnel through summer 2015**
- **DRAFT specification changes developed & sent to VDOT and industry stakeholders on August 10, 2015**
- **Final revisions sent to CN division in September 2015.**

## Input received

- 39 formal comments from industry
- VDOT/VTRC/FHWA staff input as well.
- Of 39 total, formal comments submitted by industry:
  - 18 comments – resulted in changes incorporated
  - 16 comments - not accepted/no changes at this time
  - 5 comments – editorial/inquiry in nature (*no action needed*)
- Over half of the 28 comments from VAA were accepted & their suggested input/changes incorporated into the VDOT specifications.

# Noteworthy changes

- **Section 211 - 50 gyration experimental mix design procedures**
- **Section 310 - Tack & Bond**
- **Special Provision for 305 - RAP use as shoulder stone**
- **Special Provision – Scratch & Leveling course**

# Noteworthy changes

## Section 211 – 50 gyrations design mixes



**TABLE II-14**  
**Mix Design Criteria**

Mix Type	VTM (%) Production	VFA (%) Design	VFA (%) Production	Min. VMA (%)	Fines/Asphalt Ratio	No. of Gyration N Design
SM-9.0A <sup>1,2</sup>	2.0-5.0	75-80	70-85	16	0.6-1.3	65
SM-9.0D <sup>1,2</sup>	2.0-5.0	75-80	70-85	16	0.6-1.3	65
SM-9.0E <sup>1,2</sup>	2.0-5.0	75-80	70-85	16	0.6-1.3	65
SM-9.5A <sup>1,2</sup>	3.0-6.0	72-78	65-80	16	0.7-1.3	50
SM-9.5D <sup>1,2</sup>	3.0-6.0	72-78	65-80	16	0.7-1.3	50
SM-9.5E <sup>1,2</sup>	2.0-5.0	75-80	70-85	16	0.7-1.3	50
SM-12.5A <sup>1,2</sup>	3.0-6.0	72-78	65-80	16	0.7-1.3	50
SM-12.5D <sup>1,2</sup>	3.0-6.0	72-78	65-80	16	0.7-1.3	50
SM-12.5E <sup>1,2</sup>	2.0-5.0	75-80	70-85	16	0.7-1.3	50
IM-19.0A <sup>1,2</sup>	2.0-5.0	69-76	64-81	13	0.6-1.2	65
IM-19.0D <sup>1,2</sup>	2.0-5.0	69-76	64-81	13	0.6-1.2	65
IM-19.0E <sup>1,2</sup>	2.0-5.0	69-76	64-81	13	0.6-1.2	65
BM-25.0A <sup>2,3</sup>	1.0-4.0	67-87	67-92	12	0.6-1.3	65
BM-25.0D <sup>2,3</sup>	1.0-4.0	67-87	67-92	12	0.6-1.3	65

<sup>1</sup>Asphalt content should be selected at 4.0% air voids for A & D mixes, 3.5% air voids for E mix.

<sup>2</sup>Fines-asphalt ratio is based on effective asphalt content.

<sup>3</sup>Base mix shall be designed at 2.5% air voids. BM-25A shall have a minimum asphalt content of 4.4% unless otherwise approved by the Engineer. BM-25D shall have a minimum asphalt content of 4.6% unless otherwise approved by the Engineer.

# Noteworthy changes

## Section 310 – Tack & Bond

1. Tack as pay item
2. Requirement for distributor calibration
3. Requirement for plate testing to confirm application rate
4. Tack retested by AMRL lab if >30 days old
5. Remove allowance for dilution
6. Removal of CRS-1 & CRS-2 in favor of other materials (CQS-1h, CRS-1h, CSS-1h, or non-tracking tack)

# Special Provisions





# Noteworthy changes

## Section 305 –RAP as shoulder stone

The maximum compacted lift thickness for aggregate base material, RAP, non-fractionated RCA, or any blends thereof, shall be 6 inches, with a minimum of 4 passes of a steel wheel roller of at least 10 tons. Determination of the acceptability of the material shall be based on visual inspection, at the discretion of the Engineer.

# Noteworthy changes

## Special provision – Scratch & leveling

### I. DESCRIPTION

This work shall consist of scratching and/or leveling a crack sealed, scabbed or distorted pavement surface (milled or unmilled) with the appropriate asphalt mixes in areas designated by the Engineer. This work is applicable only to the routes or areas designated to be overlaid in this contract and where the Engineer has authorized the limits for scratching/leveling. This work will be accomplished prior to the overlay paving operation. After the scratching/leveling, the Contractor will be responsible for maintaining the prepared surface until the overlay has been completed.

**Definitions:** For the purpose of the Specifications surface preparation is defined as the following:

- TYPE I -** A localized scratch/level of the pavement, including crack sealed, distorted or scabbed areas, no more than 50 percent of the surface area to be overlaid in each distinct paving site/location on the contract.
- TYPE II -** A widespread scratch/level of the pavement, including crack sealed, distorted or scabbed areas, more than 50 percent of the surface to be overlaid in each distinct paving site/location on the contract.

# Noteworthy changes

## Special provision – Scratch & leveling

### IV. MEASUREMENT AND PAYMENT

When the bid proposal contains a pay item, corresponding to any of the types below, specified in the “Schedule of Items”; that type of scratch/leveling course will include the work designated in the corresponding type’s description and be paid for in accordance with the price designated by the bidder. If the bid proposal contains no pay item for the type of scratch/leveling course as described herein, such as may be discovered in the field; that scratch/leveling course shall meet the definition of Section I and will be measured and paid for in accordance with the following:

**Scratch/Leveling Course Type I** will be measured in tons of asphalt material and paid for at the rate of two times the contract unit bid price per ton of the mix type(s) of asphalt authorized by the Engineer. This price shall include preparing the area, furnishing and applying tack coat, furnishing and applying asphalt material, and compaction.

**Scratch/Leveling Course Type II** will be measured in tons of asphalt material and paid for at the rate of one and one-half times the contract unit bid price per ton of the mix type(s) of asphalt authorized by the Engineer. This price shall include preparing the area, furnishing and applying tack coat, furnishing and applying asphalt material, and compaction.

When included in the “Schedule of Items”, payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Scratch/Level Type I	Tons
Scratch/Level Type II	Tons

# Other topics:

# MITTS/PLAID Phase III

- Phase III (HMA and CMA) will be released in late 2015 :
  - Access Control(s)
  - Electronic TL 102's – *required* beginning January 2016

- Enhanced Quality Control features:

- Electronic Control Charts
- Comparison Analysis (D2S) with flag
- Quality Management Report (QMR)
- Generate electronic notifications (ie email) if tests are failing and/or quality trends are negative



# Materials Information Tracking System

Home > HMA Program

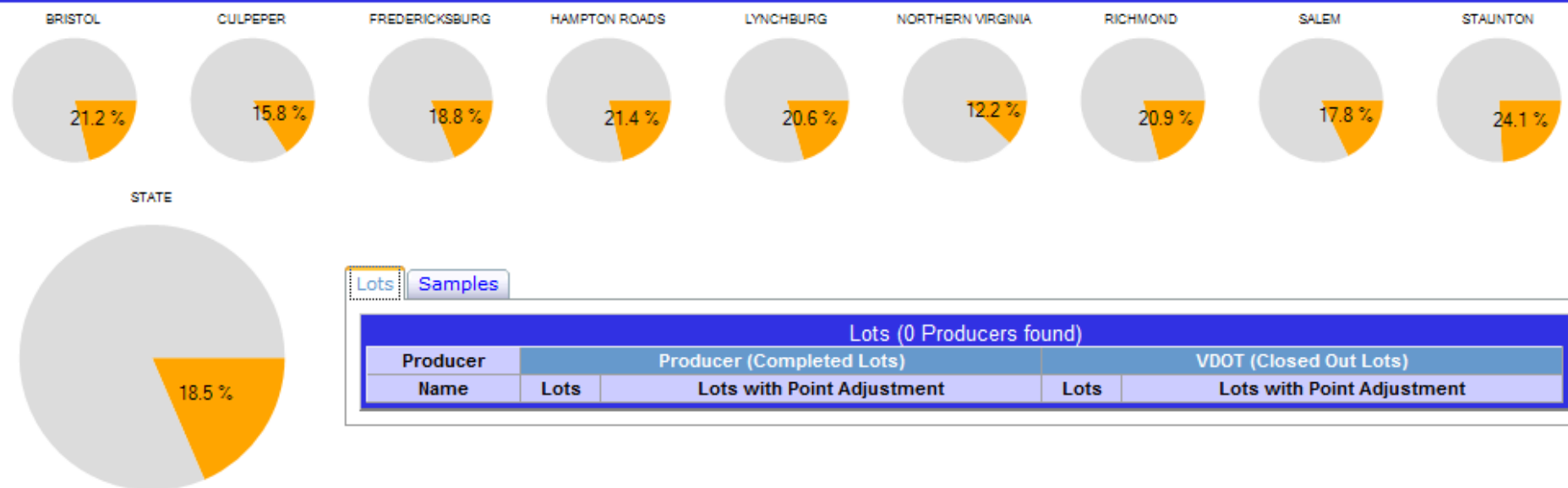
Home   CMA Program   HMA Program   Administration   Help

## Quality Management Report

Filter existing records by:

District: <input type="text" value="Select"/>	Producer Name: <input type="text" value="Select"/>	Plant Name: <input type="text"/>
Design Type: <input type="text" value="Select"/>	Mix Type: <input type="text" value="Select"/>	Job Mix Number: <input type="text"/>
Production Year: <input type="text" value="2014"/>	Lot Number: <input type="text"/>	Project Number: <input type="text" value="Select"/>
Action Date Begin: <input type="text" value="06/28/2015"/>	Action Date End: <input type="text"/>	<input type="button" value="Apply"/> <input type="button" value="Reset"/>

### VDOT Sampling Year to Date



Lots (0 Producers found)				
Producer	Producer (Completed Lots)		VDOT (Closed Out Lots)	
Name	Lots	Lots with Point Adjustment	Lots	Lots with Point Adjustment

The application of this software product is the responsibility of the user. There are no expressed or implied warranties.

“FLAGS” – what are flags in MITS/PLAID?

1250 Samples		
Producer		
Submitted Samples	Grad/Asphalt Flags	Volumetric Flags
<u>1199</u>	<u>742</u>	<u>148</u>
<u>388</u>	<u>202</u>	<u>5</u>



VDOT				
Released Samples	Grad/Asphalt Flags	Volumetric Flags	Grad/Asphalt D2S Flags	Volumetric D2S Flags
<u>972</u>	<u>229</u>	<u>128</u>	<u>0</u>	<u>0</u>
<u>368</u>	<u>65</u>	<u>33</u>	<u>0</u>	<u>0</u>



# Questions?

