

Eastern Region Update - 2017








Cliff Selkinghaus
South Carolina DOT
Jacksonville, FL



Survey of SEAUPG states

Eastern Region

North Carolina	
South Carolina	
Virginia	
West Virginia	

Changes - Updates to Specifications

North Carolina

- Using Recycled Binder Ratio now used in lieu of percent weight of mix when using RAP / RAS.
- 2018 – New limits for the (RBR) tiered based on:
 - a) % from RAS
 - b) % from RAS and RAP

South Carolina

- 2018 – Going away from PWL and Volumetrics for Field Acceptance, keeping verification program done by SCDOT.
- AAD - Using Binder Content, Gradation, and In Place Density
- Anti Strips – Allow hydrated lime or LASA in all PG 64-22 mixtures
- Allowing options for mixtures used in Full Depth Patches
- Working deep sections of rehab on Interstates (8-10" – 2 lifts)

Changes - Updates to Specifications

Virginia

- Ndesign on all Surface Mixtures is now 50 gyrations
- Implemented new 5% bonus for AC based on variability.
- Core density bonus of 5% on select routes in 2017.

West Virginia

- PG Binder – MSCR Grading (M332) beginning in 2018



Number of tons of HMA and WMA

STATE	~ Tons
SC	3,500,000 (6% WMA)
NC	8,800,000 (15% WMA)
VA	6,000,000 (40-50% WMA – mostly foaming)
WV	+ 1,000,000 (WMA - only foaming permitted)

How have funding shortages affected asphalt mixture tonnage this year?

North Carolina

- No reported shortages!
- Increase in lettings from \$1.6 billion to \$2.6 billion for next two years
- New Bond Program on the Table , may allow same spending levels for 5 years!

How have funding shortages affected asphalt mixture tonnage this year?

South Carolina

- Got a Gas Tax Increase – First since 1986!
- Phasing in an increase of \$.02/gallon a year, for 6 years until we get to \$0.12 .
- 149 million increase in 2017.
- 600 million increase by 2022.
- Focus: improve safety on 1000 miles of rural roads
- 465 new bridges
- Improve 140 miles of Interstate - Widening

How have funding shortages affected asphalt mixture tonnage this year?

Virginia

- Not much...
- Projected to stay about the same in the coming year...

West Virginia

- Less tonnage
- Going to thinner lifts..



Experiences with WMA

North Carolina

- WMA is a contractor option, slight decrease in the WMA use.
- Many contractors use the MWA with the LASA benefits, and often run the mixes into the conventional hot temp zone.

South Carolina

- WMA Specification – Allowed in all mixes with unmodified binder (64-22)
- Use chemical WMA additives and lower temps for 100% of OGFC mixtures w/o fibers
- Special projects on Interstates where major rehab was done with placing 9-10” of intermediate mix in two lifts in same night prior to rush hour traffic.

Experiences with WMA

Virginia

- Contractor option
- WMA 1.5 Million of 6.0 Million Tons (chemical)
- Do not currently track foaming , very popular perhaps adding another 1.5 million tons
- Most contractors using WMA as a compaction aid

West Virginia

What is your experience thus far (if any) using the AMPT or other performance tests?

North Carolina

- AMPT – Experience is limited
- Staffing levels have prevented NCDOT from implementing a regular testing program.
- Still using APA on all dense graded surface mixes.
- TSR – required on designs and during production

South Carolina

- APA required on high volume surface and intermediate mixes during design process.
- AMPT - initial values are being generated through a research project, OMR will procure the AMPT once project is completed in the coming months.

What is your experience thus far (if any) using the AMPT or other performance tests?

Virginia

- Using research data collected from VTRC
- Don't currently use for production, attempting to gather more production data for decision.

West Virginia

- WVU doing research with their AMPT.

Describe your State's experience with mixtures containing high percentages of recycled materials (RAP/RAS, etc.)

North Carolina

- 7.5/8.8 million tons of mix used RAP
- Specification to Recycled Binder Ratio (RBR) limits
- Concerns continue with increased cracking potential of mix with very high recycled content.
- NCDOT is interested in outcomes / products of on-going national cracking performance research.

Describe your State's experience with mixtures containing high percentages of recycled materials (RAP/RAS, etc.)

South Carolina

- Average around 25% aged binder replacement.
- No grade dumping yet
- Currently seeing an increase in number of virgin mix designs, RAP quantities are low in most rural plants (FDR w/ cement) + previous funding, and perhaps lower binder costs?

Describe your State's experience with mixtures containing high percentages of recycled materials (RAP/RAS, etc.)

Virginia

- Average around 25% RAP
- 1.6 million tons of RAP used in 2016
- Average RAP content is around 25%
- RAS – very low usage 5500 tons
- Possible high RAP pilot projects next year
- Concerns with mix performance with cracking and RAP QC

West Virginia

- High RAP mixtures contain around 25%
- Some issues with dust balls reported on the high RAP mixtures
- PWL specification is "light" on AC and -200 requirements
- No RAS





What Methods has your State implemented to lower cost for maintenance, preservation or reducing pavement costs?

North Carolina

- Specific funding continues for Pavement Preservation: \$100 Million
Using these funds for chip seals, micro-surfacing, thin-lifts, crack sealing, etc.

What Methods has your State implemented to lower cost for maintenance, preservation or reducing pavement costs?

South Carolina

- PMTLSC – 4.75mm paid by the SY (3/4" thickness)
- Micro-Surfacing, Single, Double, Triple Treatments
- FDR with cement
- Fogseal on OGFC
(Pilot project on I-95, I-77 and I- 20)

What Methods has your State implemented to lower cost for maintenance, preservation or reducing pavement costs?

Virginia

- Use Surface Treatments.
- Trying to use more Cold Recycling and FDR

West Virginia

- Developed new design bid specification with a 9yr warranty on rehab jobs, have seen a increase in number of competitive bids with allowing both asphalt and the "other" industry.

Any other interesting topics to mention.....

North Carolina

- Continue to see some isolated issues with de-bonding.
- Working with Industry to develop a best practices for storage and maintenance of emulsion tack materials after delivery from terminal.

South Carolina

- Still working on finding good candidates for CIR/CCPR/HIR pilot projects...
- Deep section rehab with a WMA 12.5mm designs, and allowing this in 2018 for Full Depth Patching, 2 lifts in lieu of 3.
- Funding approval for a deep section on NCAT Test Track in 2018.

Any other interesting topics to mention.....

Virginia

- Concerns over mix's variability, wanting more control in the system ,and ways to improve.
- Looking into bonus pay factors for asphalt mixtures – reasonable amount TBD? Attempting to encourage contractors to improve overall quality, concerns with short and long term cost benefits associated with allowing a bonus.

West Virginia

- Added a new SAMI seal and Scrub Seal Specification
- Completely revamped their old chip seal specification

Thank You!



NCDOT – Todd Whittington (919-329-4060)

SCDOT – Cliff Selkinghaus (803-737-6700)

VDOT – Sungho Kim (804-328-3137)

WV DOT – John Crane (304-558-7472)