

Asphalt Tonnage - 2023

Tons HMA placed by DOT: (last 12 months)

- VA – 4.19 Million Tons placed in 2023 (As of 10/5/2023)
5.25 Million Tons placed in 2022 Calendar year
- WV – 3.1 Million Tons (As of 11/01/23)

Asphalt Tonnage - 2023

Tons HMA placed by DOT: (last 12 months)

- NC – 4.81 Million Tons placed in 2023 (As of 09/29/2023)
Projected to be 7+ Million by EOY
- SC – 3.56 Million Tons (85k of this was WMA)


Supply Chain Issues

- VA – For 2023, we haven't seen many widespread supply chain issues, like we have in the past few years.
- WV – Aggregate- Producers seem to be having trouble keeping up with higher demand due to the larger program.

Supply Chain Issues


- NC – Aggregate – Monthly monitoring of aggregate supply chains show holding steady for 2023 (1-4 weeks depending on size).
- SC – Mineral Filler for SMA – Future concern due to fly ash shortage (coal plants), having to travel 100's of miles for marble dust, and not enough baghouse fines.

Funding




What is the state of the DOT Funding for 2023?


- VA - For 2024, the DOT funding has increased and VDOT's paving program will continue to grow.
- WV – DOT funding increased in 2023 and will increase again for 2024.



2023 Annual Meeting – Little Rock, AR




Funding




What is the state of the DOT Funding for 2023?


- NC - FY 24-25 : Highway Fund = 3.196B (230M Increase over FY 23-24)
- SC – DOT funding increased for 2023



2023 Annual Meeting – Little Rock, AR




Funding




Is the level of asphalt work set to increase / decrease / hold steady in 2023?


- VA – The level of asphalt work increased in 2023 from 2022 and will continue to increase for 2024.
- WV – Largest paving program ever in 2023 and set to increase in 2024. More State Forces paving than ever before.



2023 Annual Meeting – Little Rock, AR




Funding




Is the level of asphalt work set to increase / decrease / hold steady in 2023?


- NC – The hope or anticipation is, asphalt work in NC would increase, especially given the additional transportation funding provided by the NC legislature and the Federal Government.
- SC – The level of asphalt work is set to increase slightly.



2023 Annual Meeting – Little Rock, AR




Asphalt Program Updates



Do you have any upcoming major specification changes?


- VA - Moving to steady state implementation of BMD for our SM-9.5 and SM-12.5 A and D mixes in 2024.

All mixes will be designed to meet BMD requirements; SM-9.5D and SM-12.5D will have performance-based testing required during production.



2023 Annual Meeting – Little Rock, AR


Asphalt Program Updates



Do you have any upcoming major specification changes?

- WV - Complete 401 Specification rewrite for 2023- rollout is going well. 93% Lower Limit for density.

410 (PWL) Specification changes for 2023- Linear approach to payment for secondary roadways.



2023 Annual Meeting – Little Rock, AR

Asphalt Program Updates

Do you have any upcoming major specification changes?

- NC – None at this time.
- SC – 2024 Standard Specifications. First major revision since 2007.



 2023 Annual Meeting – Little Rock, AR

Balanced Mix Design

- **Have you or do you plan to implement BMD in your state?**
 - Yes
- **What approach has been chosen for your state, and what tests have you adopted for BMD?**
 - At this time, Performance + Optimized Volumetrics.
 - Cantabro for durability, IDT-CT for cracking, IDT-HT and APA for rutting
- **Any pilot projects underway or planned? If so, has there been any real-world validation of this BMD criteria?**
 - Yes, we have lab validation, accelerated pavement testing validation and research is currently underway to validate sites used to benchmark and develop our thresholds.
- **Is your state's contractor's association on board with BMD?**
 - For the most part.

 2023 Annual Meeting – Little Rock, AR

Balanced Mix Design


- **Have you or do you plan to implement BMD in your state?**
 - Discussions are ongoing. Some form of implementation is likely, but there have also been talks of air void regression.
- **What approach has been chosen for your state, and what tests have you adopted for BMD?**
 - Yet to choose an approach.
 - Early research using IDEAL-CT, IDEAL-RT, and Hamburg.
- **Any pilot projects underway or planned? If so, has there been any real-world validation of this BMD criteria?**
 - No
- **Is your state's contractor's association on board with BMD?**
 - We are lucky to have a great relationship with CAWV and APAWV. We maintain consistent open dialogue.

 2023 Annual Meeting – Little Rock, AR

Balanced Mix Design

- **Have you or do you plan to implement BMD in your state?**
- **What approach has been chosen for your state, and what tests have you adopted for BMD?**
- **Any pilot projects underway or planned? If so, has there been any real-world validation of this BMD criteria?**
- **Is your state's contractor's association on board with BMD?**

NC - NCDOT hosted a joint workshop with NCAT in September of this year where BMD was discussed in more depth. Our Asphalt Association was present and engaged in those talks. No immediate plans to implement but the overall sentiment was interested in continuing to monitor other states implementation and continue discussing it at our joint Industry/Department meetings.

 2023 Annual Meeting – Little Rock, AR


Balanced Mix Design

- **Have you or do you plan to implement BMD in your state?**
 - No, adjustments made prior to allow for mix design to target lower AV and Corrected Optimum Asphalt Content (COAC) adds more binder.
- **What approach has been chosen for your state, and what tests have you adopted for BMD?**
 - The above changes have made our mixtures more durable overall. Using APA and Ideal CT to track progress.
- **Any pilot projects underway or planned? If so, has there been any real-world validation of this BMD criteria?**
 - No
- **Is your state's contractor's association on board with BMD?**
 - No


 2023 Annual Meeting – Little Rock, AR

Smoothness


- **Has your state had issues with smoothness specifications?**
 - We have had isolated issues of projects achieving smoothness specifications but typically we are seeing smoother pavements.
- **Any issues with reliability of testing equipment?**
 - No real issues with reliability of equipment
- **Does your state have a time limit to test final smoothness once job has been completed?**
 - Yes, Rideability must be tested within 30 days of notification that job is completed per specification

 2023 Annual Meeting – Little Rock, AR

Smoothness




- **Has your state had issues with smoothness specifications?**
 - Only occasional, isolated issues.
- **Any issues with reliability of testing equipment?**
 - Our smoothness equipment is nearing EOL and plans for replacement are underway.
- **Does your state have a time limit to test final smoothness once job has been completed?**
 - While we do not have a specific time limit, our goal is to test for acceptance within 14 days of receiving the request.




2023 Annual Meeting – Little Rock, AR

Smoothness




- **Has your state had issues with smoothness specifications?**
 - No issues or complaints by Contractors or Industry. FHWA did ask us to review our pay incentive and disincentive algorithm for continuity and relevancy. We did and found no reason to change at this time however will be reviewing again in 2024/2025.
- **Any issues with reliability of testing equipment?**
 - None
- **Does your state have a time limit to test final smoothness once job has been completed?**
 - NC – Performs smoothness test within 7 days of receiving authorization. Raw files handed immediately to onsite inspector, final report and documentation provided by Contractor to NCDOT 10 days after testing.




2023 Annual Meeting – Little Rock, AR

Smoothness




- **Has your state had issues with smoothness specifications?**
 - Limited issues
- **Any issues with reliability of testing equipment?**
 - None
- **Does your state have a time limit to test final smoothness once job has been completed?**
 - No, we currently do not have a time limit to test final smoothness. SCDOT currently has a SPR Project to review other states' rideability specifications, methodologies, and operations to identify potential beneficial items that should provide a greater cost benefit to the Department if incorporated into SCDOT practices.




2023 Annual Meeting – Little Rock, AR

Environmental Product Declarations (EPD's)

- **Has there been any recent buzz around EPD's in your state?**
 - There have been talks but we are still in an information gathering phase.
- **What about Life Cycle Assessment (LCA)?**
 - There have been talks but we are still in an information gathering phase.




2023 Annual Meeting – Little Rock, AR




Environmental Product Declarations (EPD's)

- **Has there been any recent buzz around EPD's in your state?**
- **What about Life Cycle Assessment (LCA)?**
 - WVDOH has partnered with WVU to conduct research as part of the FHWA Climate Challenge. The research is focused on creating LCA's to develop EPD's for current WV mix designs to develop an Excel-based tool to investigate sustainable solutions for specific projects.




2023 Annual Meeting – Little Rock, AR




Environmental Product Declarations (EPD's)

- **Has there been any recent buzz around EPD's in your state?**
 - Yes. We have engaged with Industry partners, contractors, and others over the last few months to better understand so NCDOT and our partners can be educated and well prepared when EPDs become potentially mandated in the future.
- **What about Life Cycle Assessment (LCA)?**
 - Not as much buzz as EPDs. We have for quite some time, included LCAs in determining/selecting optimum pavement types.



2023 Annual Meeting – Little Rock, AR



Environmental Product Declarations (EPD's)

- **Has there been any recent buzz around EPD's in your state?**
 - None – Some limited participation in the bench market initiative by NAPA. Some contractors in SC have created EPDs.
- **What about Life Cycle Assessment (LCA)?**
 - SCDOT has not looked at LCA for the purpose of EPDs.



2023 Annual Meeting – Little Rock, AR



2023 Initiatives



- **Do you have any new initiatives or specifications coming out in 2023?**
 - In 2023, we developed Balanced Mix Design Guidelines and Virginia Test Methods for Performance Based testing to supplement our specifications.
 - For 2024 calendar year, we are:
 - Moving to steady state BMD implementation for surface mixes
 - Increased our minimum density to 92.5% TMD for all Superpave mixes
 - Strengthened remove and replace language and/or increased pay reduction for density below 88%



2023 Annual Meeting – Little Rock, AR

2023 Initiatives



- **Do you have any new initiatives or specifications coming out in 2023?**
 - 2023 Standard Specifications for Roads and Bridges
 - 2024- New Materials Procedure for the approval of mixtures containing RAP.
 - E-ticketing required for every load of aggregate, asphalt, or concrete delivered to state projects.



2023 Annual Meeting – Little Rock, AR

2023 Initiatives



- **Do you have any new initiatives or specifications coming out in 2023?**
 - Our [2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES](#) was just electronically published in September. Printed copies are at the printer as we speak prepping for mass distribution later this year.
 - No major new initiatives.



2023 Annual Meeting – Little Rock, AR

2024 Initiatives



- **Do you have any new initiatives or specifications coming out in 2024?**
 - Looking into more trackless tack for SMA/interstate paving.
 - NCAT Test Track 2024 Cycle – GET in SMA using the dry process.



2023 Annual Meeting – Little Rock, AR

Additional Info



- **Is there anything else that you would like to share?**
 - Personnel Changes, etc.**
 - Assistant State Materials Engineer overseeing Asphalt and Pavement Design is now Angela Beyke, P.E.
 - Asphalt Program Manager is Mourad Bouhajja, P.E.
 - Pavement Design and Evaluation Program Manager is Girum Merine, P.E.



2023 Annual Meeting – Little Rock, AR

Additional Info



• Is there anything else that you would like to share?
Personnel Changes, etc.

Eric Lough, P.E. is our new State Pavements Engineer

Mike Mance, P.E. is now Assistant Division Director- Lab Testing and Source Approval



2023 Annual Meeting – Little Rock, AR

Additional Info



• Is there anything else that you would like to share?
Personnel Changes, etc.

Kristen Ewin, our NCDOT Asphalt Quality Engineer who was responsible for our Binder and Emulsion QA Program has left the Department. She moved on to study law at Georgetown University. Her replacement has not yet been hired. Our Asphalt Materials Workgroup is also down 2 Testing Technicians in addition to the above-mentioned Engineer position.



2023 Annual Meeting – Little Rock, AR

Additional Info



• Is there anything else that you would like to share?
Personnel Changes, etc.

- SCDOT will have a new Asphalt Materials Engineer for 2024.
- Staffing reductions to save operating costs.



2023 Annual Meeting – Little Rock, AR

Special Thanks!

- Angela Beyke P.E. – VDOT
- Matt Hilderbran, P.E. – NCDOT
- Kimberly Lyons, Ph.D, P.E. – SCDOT



2023 Annual Meeting – Little Rock, AR