

SEAUPG State Update
Central Subgroup
 Alabama
 Florida
 Georgia
 Kentucky
 Tennessee

2023 Annual Meeting – Little Rock, AR

Asphalt Tonnage - 2023

Tons HMA placed by DOT: (last 12 months)

STATE	TONS PLACED
Alabama	2.00 Million
Florida	4.44 Million
Georgia	4.35 Million
Kentucky	3.40 Million
Tennessee	3.14 Million

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Supply Chain Issues

- **Asphalt Binder** - None
- **Aggregate** – FL (Experiencing a number of supply issues. Many project delays and mix design adjustments)
- **Lime** - None
- **Polymers** – AL (Some Specialty Polymers)
- **Liquid Antistrip** - None
- **Mineral Filler for SMA** – AL (Some Shortages)

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Funding

What is the state of the DOT Funding for 2023?

- AL – **Slight Funding Increase for 2023**
- FL – **Funding is robust in Florida and increasing. However, there are inflationary issues resulting in very high prices.**
- GA – **Funding is steady despite the suspension of gas tax collections and ongoing conversation at the Federal level around funding appropriations.**
- KY – **Actually had a surplus of funding this year.**
- TN – **There is a slight increase in resurfacing funds for both Interstate and State Routes in FY 2023.**

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Funding

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

- AL – **Asphalt Work has decreased slightly in 2023**
- FL – **Increase in terms of budget.**
- GA – **It is expected to put out the same dollar value of contracts, but we are likely to see less raw number of projects and less raw number of centerline miles resurfaced due to cost increases.**
- KY – **Hold steady**
- TN – **Generally, we are trying to keep the level of asphalt work steady. However, due to the inflation, there might be a slight decrease.**

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Asphalt Program Updates **Alabama**

Do you have any upcoming major specification changes?

No, but we will be changing our OGFC Design procedure to require a Cantabro test and freeze thaw cycle before the TSR.

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Asphalt Program Updates Florida

Do you have any upcoming major specification changes?

1. Have implemented the slab compactor, 3-wheel polisher, and dynamic friction tester for approving new aggregate sources for friction course mixtures.




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Asphalt Program Updates Florida

Do you have any upcoming major specification changes?

2. Limiting the maximum temperature for binders to 355°F.
3. Implemented a Florida test procedure to identify if emulsions will re-emulsify after breaking when exposed to a rain shower prior to paving (a problem we were having).



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Asphalt Program Updates Georgia

Do you have any upcoming major specification changes?

Allowing the use of Liquid Anti-Stripping Additives for use in all mix types other than SMA and OGFC/PEM on roads with ADT < 25,000 vpd. This will necessitate the revisions for the following GDOT specifications.

- Section 820 PG Binders
- Section 828 – Superpave Mix Design
- Section 400 – Hot Mix Asphaltic Concrete Construction

Several testing procedures will also be revised or implemented.




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Asphalt Program Updates Kentucky

Do you have any upcoming major specification changes?

- N/A
- Working toward the following:
 - PERFORMANCE - Mix Design Approval Requirement for Polymer Modified Surfaces
 - RAP Management Specification
 - Pilot Projects – Performance Based QC/QA



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Asphalt Program Updates Tennessee


Do you have any upcoming major specification changes?

- Revised Weather Limitations and Cold Weather Paving Plans
- Revised OGFC Specifications

Compacted Thickness	Minimum Air or Surface Temperature (°F)	
	Unmodified mixes (PG 64, 67)	Modified mixes (PG 76, 78, 82)
< 2.0 inches	45	55
≥ 2.0 inches	35	35

† If paving less than 3" and less than 55°F, an approved Warm Mix Additive is required in the mix.

Asphalt Content	Minimum Tensile Strength	Minimum TSR
Polymer Modified	100 psi	80%
New Polymer Modified	80 psi	80%
411 OGFC	50 psi	70%



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Balanced Mix Design Alabama

• Have you or do you plan to implement BMD in your state?

We are working towards it, including a validation study and shadow projects

• What approach has been chosen for your state, and what tests have you adopted for BMD?

We have chosen approach 3, using AL-CT (modified IDEAL-CT) HT-IDT, and Hamburg in some cases. Our OGFC procedure will use Cantabro.



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Balanced Mix Design Alabama

- Any pilot projects underway or planned? If so, has there been any real world validation of this BMD criteria?

We have a Validation project with six test sections planned to let in November

Target HT-IDT and CT index for Each Test Section		
Test Section	Design HT-IDT	Design CT index
1	14-18 psi Low	55-77 Med
2	14-18 psi Low	83-117 High
3	20-30 psi Med	27-39 Low
4	20-30 psi Med	83-117 High
5	35-45 psi High	27-39 Low
6	35-45 psi High	55-77 Med

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Balanced Mix Design Alabama

- Is your state's contractors association on board with BMD?

Yes, they have been very supportive, but they have concerns about test variability and validation.

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Balanced Mix Design Florida

- Have you or do you plan to implement BMD in your state?
 - Not any time soon. A contracted research project is underway benchmarking 30 mix designs for rutting and cracking performance to establish a baseline. FDOT's big concern is the suitability of the available cracking tests.
- What approach has been chosen for your state, and what tests have you adopted for BMD?
 - Pending.....
- Any pilot projects underway or planned? If so, has there been any real-world validation of this BMD criteria?
 - Not yet.
- Is your state's contractor's association on board with BMD?
 - Some contractors are more interested than others. Overall, neutral.

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Balanced Mix Design Georgia

- Have you or do you plan to implement BMD in your state?
 - Eventually
- What approach has been chosen for your state, and what tests have you adopted for BMD?
 - GDOT will probably go with approach C. Currently, GDOT requires Hamburg Testing (AASHTO T324)
 - Abrasion Loss (AASHTO T401) test and report. Data being collected.
 - IDEAL CT (ASTM D8225) submit specimen and GDOT test. Data being collected.
- Any pilot projects underway or planned?
 - Not currently
- If so, has there been any real-world validation of this BMD criteria?
 - NCAT has done a benchmarking study for GDOT using IDEAL CT and Hamburg testing.
- Is your state's contractor's association on board with BMD?
 - Contractors participated in NCAT study as partners.

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Balanced Mix Design Kentucky

- Have you or do you plan to implement BMD in your state?
 - Partial Mix Design Approval Specification for Standard Surface Mixtures
- What approach has been chosen for your state, and what tests have you adopted for BMD?
 - Current Approach = Volumetric Design with Performance Validation
 - IDEAL-CT & Hamburg
- Any pilot projects underway or planned? If so, has there been any real world validation of this BMD criteria?
 - Lab Mix & Plant Mix Data collected since July 2019 on KYTC Contracts
 - Validation Study beginning now
- Is your state's contractors association on board with BMD?
 - YES

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Balanced Mix Design Tennessee

- Have you or do you plan to implement BMD in your state?
 - Working towards it
- What approach has been chosen for your state, and what tests have you adopted for BMD?
 - Approach D: Performance. Chosen tests are IDEAL-CT for cracking and HWTT for rutting for design. For QA/QC we are evaluating Ideal RT and HT-IDT as well as IDEAL CT with 4" marshall specimens
- Any pilot projects underway or planned? If so, has there been any real world validation of this BMD criteria?
 - No current pilot projects underway and no field validation data. We have had a couple voluntary shadow projects with a BMD design method that we are collecting pavement data on. We are in the planning process for Field Validation test sections
- Is your state's contractors association on board with BMD?
 - We have been keeping them informed of where we are at in the process of adopting BMD, but it's been neutral to date.

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Smoothness Alabama


- Has your state had issues with smoothness specifications?
 - No
- Any issues with reliability of testing equipment?
 - No
- Does your state have a time limit to test final smoothness once job has been completed?
 - No, but it is in the contractor's best interest to test sooner rather than later.



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Smoothness Florida


- Has your state had issues with smoothness specifications?
 - No issues for limited access roadways. Minor issues for non-limited access roadways: the specification could do a better job to address how to test signalized intersections. Examples: hard braking or stopping is not allowed. Currently looking at research to investigate slower speeds and stop-and-go traffic.
 - Currently implementing IRI incentive specifications for limited access roadways.
 - Performing trials for IRI incentive specifications for non-limited access roadways.
- Any issues with reliability of testing equipment?
 - Equipment is stable utilizing line lasers and standard AASHTO survey protocol.
 - Profilers are certified annually with the R 56 protocol as part of FDOT's certification process.
 - FDOT uses the front bumper inertial profiler for smoothness with no reliability issues.
- Does your state have a time limit to test final smoothness once the job has been completed?
 - No, but testing typically occurs within two weeks of completion of the friction course.



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Smoothness Georgia


- Has your state had issues with smoothness specifications?
 - Nothing noteworthy
- Any issues with reliability of testing equipment?
 - No
- Does your state have a time limit to test final smoothness once job has been completed?
 - Yes, for open-graded mix types. "All OGFC or PEM are to be evaluated after the roadway has been opened to traffic for a minimum of 5 days and a maximum of 15 days"



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Smoothness Kentucky


- Has your state had issues with smoothness specifications?
 - no
- Any issues with reliability of testing equipment?
 - none
- Does your state have a time limit to test final smoothness once job has been completed? **yes**



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Smoothness Tennessee


- Has your state had issues with smoothness specifications?
 - No issues
- Any issues with reliability of testing equipment?
 - No issues
- Does your state have a time limit to test final smoothness once job has been completed?
 - No specified time limit



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Environmental Product Declarations (EPD's) Alabama


- Has there been any recent buzz around EPD's in your state?
- What about Life Cycle Assessment (LCA)?
- **Yes and yes. We are part of the FHWA Climate Challenge that will use EDPs, LCA, and contribute to FHWA's LCA Pave Database.**



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Environmental Product Declarations (EPD's) **Florida**

- Has there been any recent buzz around EPD's in your state?
 - EPD's are not a government requirement in Florida, however, many contractors have elected to create EPDs for their mix designs.
- What about Life Cycle Assessment (LCA)?
 - Not performed in Florida.



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Environmental Product Declarations (EPD's) **Georgia**

Has there been any recent buzz around EPD's in your state?

- No

What about Life Cycle Assessment (LCA)?


- Although GDOT has not started work on EPD/LCA on asphalt mix and asphalt pavement, GDOT has jointly conducted research with the Georgia Institute of Technology for Performance Based Specifications that prompts to use Life Cycle Assessment (LCA) to capture relatively lower emission during construction of structural concrete and concrete pavement when Type II cement (or limestone modified cement) is used. GDOT adopted this environmentally friendly cement recently in our supplemental specification, to be a good stewardship to the environmental sustainability.



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Environmental Product Declarations (EPD's) **Kentucky**

- Has there been any recent buzz around EPD's in your state? **Yes**
- What about Life Cycle Assessment (LCA)? **No**



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Environmental Product Declarations (EPD's) **Tennessee**

Has there been any recent buzz around EPD's in your state?

No

What about Life Cycle Assessment (LCA)?

No



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2023 Initiatives **Alabama**

- Do you have any new initiatives or specifications coming out in 2023?
- New OGFC Design Procedure previously mentioned
- Working with AAPA and NCAT to use volumetric methods to mitigate cracking
- FHWA Climate Challenge project
- BMD Shadow Projects



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2023 Initiatives **Florida**

- Do you have any new initiatives or specifications coming out in 2023?
 - A new approach using a slab compactor, 3-wheel polisher, and dynamic friction tester has been implemented in 2023 for the approval of new aggregate sources for friction course mix types.



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2023 Initiatives Georgia

- Do you have any new initiatives or specifications coming out in 2023?
 - We have added 2 new GDTs
 - GDT 139, Detection of Amine Based liquid anti-stripping additives in asphalt cement
 - GDT 140, Detection of hydrated lime using hydrochloric acid
 - GSP 21, sampling procedures for contractor acceptance testing of hot mix asphalt is being reviewed for approval this year



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2023 Initiatives Kentucky

- Do you have any new initiatives or specifications coming out in 2023? Looking into ways to implement specifications for RAP stockpile management. With EPD's looming in the future, contractors have to get a better handle on processing and taking care of RAP if higher percentages are going to be used in future asphalt mix designs.



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2023 Initiatives Tennessee

- Do you have any new initiatives or specifications coming out in 2023?
- 4" Ideal CT specimens submitted with designs for dense graded surface mix – Evaluating variability of test



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Additional Info

- Is there anything else that you would like to share?
 - Personnel Changes, etc. (Florida)
 - Sue Zheng is the new Director of Materials.
 - Howie Moseley promoted to State Materials Engineer.
 - Jim Musselman is the new State Bituminous Materials Engineer.
 - Wayne Rilko (field engineer) retired.
 - Kentucky - Working toward a specification for Ideal CT testing for plant produced material and Hamburg testing for plant produced material. Just purchased three- 3 wheel polishers and slab compactor. DFT to be here later. Getting ready to test friction for lab mixes to help predict future friction values of roadway surfaces.



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Thank you!

- Zane Hartzog – ALDOT
- Greg Sholar – FDOT
- Jason Oglesby – GDOT
- Robert Semones - KTC



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