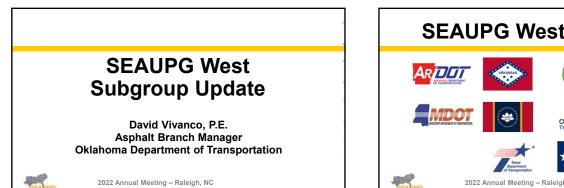
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Asphalt Tonnage - 2022 Tons HMA placed by DOT: Arkansas - 3,244,350 last 12 months Louisiana - ~2,000,000 last 12 months Mississippi - 2,282,000 in 2021 and 1,796,000 so far in 2022 Oklahoma - 2,966,817 in 2021 and 3,248,181 so far in 2022 Texas - 13,058,734 last 12 months

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Funding

What is the state of the DOT Funding for 2022?

Arkansas - STIP 2022 1,549.80 Million Louisiana - N/A **Mississippi** – Funding is in great shape in MS. Lottery funds and infrastructure bills are helping to maintain our recent levels of funding over the last few years Oklahoma - STIP 2022 1.137.48 Million

Texas - Funding is sound

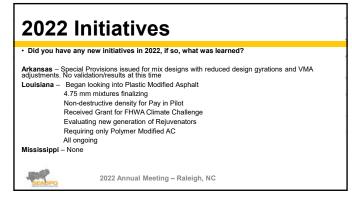


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Funding Is the level of asphalt work set to increase / decrease / hold steady in 2023? $\mbox{Arkansas}$ – Decrease slightly from \$1,188.4 million in 2022 to \$1,168.4 million in 2023 Louisiana - Expected to increase with additional funding from IIJA Mississippi - Hold steady Oklahoma – Increase from \$1,137.48 million in 2022 to \$1,384.52 million in 2023 Texas - Hold steady



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2022 Initiatives

Oklahoma – BMD, ODOT is gathering data from test sections, pilot projects along with existing Superpave mixes to get a sense of where Oklahoma is at. We are going to have to work on the specification and test procedures such as aging.

Texas - Continued to pursue Balanced Mix Design

Working towards a statewide Approved Overlay Test list similar to our Approved Hamburg Wheel Test list

Created a new statewide Binder Technician Certification Program

Working to create a statewide Seal Coat Technician Training and Certification Program Field Verification Group which led to updating our Inspector Training and Development educational resources

Heavy Duty Pavement Design, Liquid Asphalt and Seal Coat Working Groups

HiMA/HPG - Highly Polymer Modified Binders implemented into select test sections

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Asphalt Program Updates

Do you have any upcoming major specification changes?

 $\mbox{Arkansas}$ – Looking into industry best practices for RAP quality control to implement into our specifications (early stages)

Wrapping up research project for implementing a cracking test for mix designs. IDEAL-CT (ASTM D8225) was selected; expected implementation within one year

Louisiana – Non-destructive Density for Pay is in Pilot and expected for the new book. Potentially requiring only Polymer modified AC in all layers

Mississippi – Officially made the switch to internal angle for all gyratory compactors



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Asphalt Program Updates

Oklahoma – Working on BMD specifications for design and construction, and implementation of Ideal-CT

Texas – All TxDOT specifications are currently under rewrite for our 2024 specification book. There are many changes being considered.

Multiple "One Time Use" special specifications to evaluate new products and technology Example: HiMA/HPG - highly polymer-modified binder

Program updates:

TxDOT is creating a statewide binder technician certification program to ensure consistency between all parties. This will be similar to our HMA, Soils, and Aggregate programs.



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Balanced Mix Design

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

Arkansas – Not yet implementing full-scale BMD. Gradually moving toward performance-validated volumetric design

Louisiana - Implemented for all travel lane mixtures in 2016

Mississippi - Yes. Still in the planning stage

Oklahoma – We have a 4-Phase implementation plan, currently working on the 3rd Phase with pilot projects, benchmarking, and field validation



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Balanced Mix Design

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

Arkansas - Volumetric design with performance verification, APA, Retained Stability and Ideal-CT

Louisiana - LWT, Intermediate temperature SCB

Mississippi - Still evaluating different BMD tests

Oklahoma - Volumetric design with performance optimization, HWTT and Ideal-CT

Texas – Volumetric design with performance verification, HWTT and Overlay test during design. Correlate Ideal-CT to Overlay and correlate Ideal-RT to HWTT during the design phase. Use Ideal-CT and Ideal-RT during production to monitor performance.

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Balanced Mix Design

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

Arkansas – Special Provisions issued for mix designs with reduced design gyrations and VMA adjustments. No validation/results at this time

Louisiana - Fully implemented, pilots in 2014-2015.

Mississippi - None.

STATE OF

Oklahoma – Sponsors 3 NCAT test track sections focused on BMD, 3 shadow projects completed in 2018, 10 pilot projects expected to be completed by late 2022, working on 2023 project selection criteria, will be focused on field validation.

Texas – TxDOT sponsors a few sections on the NCAT test track, and 3 state universities aided in testing and placing 34 total test sections across 9 different geographic locations over the last 3 years. Have a contract to monitor these sections and update the BMD specification. They will continue to test the sections over time Maintenance Division will monitor skill and condition surveys. The updated specification will then be used to help implement additional projects through the normal construction process.



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Balanced Mix Design

Does your state's contractor's association been on board with BMD?

Arkansas – Yes; have been pushing for reduced gyrations and increased RAP contents Louisiana – Agency buv-in was essential in the implementation

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Oklahoma - Yes, they have been on board and very supportive of BMD implementation efforts

Texas – Yes. Our Universities, Contractors, and TxDOT have partnered very closely and tested very extensively to determine what will/will not work. We created multiple Committee groups to ensure communication throughout the projects.

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Smoothness

Has your state had issues with smoothness specifications?

Arkansas - Minor issues that have been addressed with the industry

Louisiana – Unknown

Mississippi – Recently only minor issues; major hurdles during initial implementation (2013-2015)

 $\mathbf{Oklahoma}$ – We are moving towards MRI/IRI and trying to get away from the Profile Index



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Smoothness

Any issues with the reliability of testing equipment?

Arkansas – No. The University of Arkansas' Center for Training Transportation Professionals (CTTP) will be starting a certification program for profilers in the fall of 2022 Louisiana – Unknown

Mississippi – We certify contractor equipment annually and perform spot QA checks on projects to check for comparison to our values

Oklahoma – Not that we know of but the high speeds profilometers along with the laser mounts seem to be easier and very reliable

Texas – No

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Smoothness

Does your state have a time limit to test final smoothness once the job has been completed?

Arkansas - Must be tested within 5 days of completion of a day's paving

Louisiana - End of the project for pay, end of lift for QC

 $\ensuremath{\text{Mississippi}}$ – Contractors are required to collect surface smoothness values within 72 hours, PE has the discretion to waive this clause

Oklahoma - Within 7 days of completion

Texas - Yes, 10 Working days to collect IRI data and 24 hours to deliver the data file to the Project Engineer

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EPDs

Has there been any recent buzz around EPDs and LCA in your state?

Arkansas – Currently meeting the requirements of the Transportation Asset Management Plan (TAMP); looking into developing and expanding LCA on the systems and treatments not covered in the TAMP

Louisiana - Yes. Recently received FHWA grant to develop EPD and LCA model for Louisiana Pavements.

Mississippi – There has been some discussion of EPDs but they are in the early stages. We will be participating in FHWA's Climate Challenge which will include work with EPDs and LCA

Oklahoma - Yes, OAPA Conference will have training session workshops on EPDs and LCA to help the producers in the state.

Texas -TxDOT and TTI applied for the FHWA climate challenge, Regarding LCA, have submitted a research statement that is under review. There is some research in universities but not aware of any life cycle assessment within TxDOT.

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(STIP) Since IIJA was passed and signed into law, a significant increase in federal funding for highway Does your state anticipate stepping up and matching federal funds with the increase? Yes for all States Please indicate the anticipated construction funding reported in your current STIP for the years below: Oklahoma State Fiscal Year Arkansas Louisiana Texas \$1,188 M Unknown 2022 \$650 M \$1,137 M \$10.6 B 2023 \$1,168 M \$9.8 B \$675 M \$1,384 M 2024 \$1,147 M \$700 M \$1,197 M \$8.7 B 2025 Not Programmed \$725 M \$1,284 M \$8.9 B 2022 Annual Meeting – Raleigh, NC

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E-Ticketing • Dees your state have an E-Ticketing specification? Arkansas – Yes, but participation is voluntary; the specification allows multiple different software at the option of the contractor Louisiana – LADOTD uses Headlight for electronic project delivery.

Mississippi - No but we will be moving that way in the next few years

Oklahoma – Yes

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Texas - Yes, SP520-002

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E-Ticketing
What types of issues have been identified since using E-Ticketing?
Arkansas – No major issues; not currently able to import the end-of-day ticket summary into our current reporting system
Louisiana – Seems to be well accepted
Mississippi – There have been some demos for different products but there have been some software communication issues
Oklahoma - The biggest issue has been with internet access to remote portable asphalt plants
Texas – We have not used E-Ticketing yet as it is the contractor's discretion
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E-Ticketing

What benefits have the state DOTs seen with using this software?, Producers- Suppliers?
 Arkansas – DOT personnel is happy; easy to maintain tracking records, and less chance of misplaced documents
 Louisiana – Availability of real-time data, geotagging, and ease of use for project documentation.
 Mississippi – N/A
 Oklahoma – Being able to access the tickets in real-time or whenever a check is warranted. Don't have to wait for the tickets to hit the project. Also, there is a safety factor when it comes to collecting tickets in traffic.
 Texas – N/A

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2023 Initiatives

Do you have any new initiatives or specifications coming out in 2023?

Arkansas – None

Louisiana - Continuing 2022 initiatives

Mississippi – None

Oklahoma – Get producers and agencies more familiar with BMD, work on BMD specifications, and training/education for BMD and MRI/IRI. WMA and carbon reduction.

Texas – New specification manual for 2023. Revise TxDOT test methods. Transition from LIMS and SiteManager into APCM (AASHTOWare)

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Special Thanks Arkansas – Jared Johnson Louisiana – Samuel Cooper III Mississippi – Cass Coon Oklahoma – Larry Patrick Texas – Travis Patton