

Flexible Pavement Committee Meeting Minutes

State Materials Office
Gainesville, Florida

August 15, 2024
10:00AM – 2:45PM

Jim Musselman (State Asphalt Materials Engineer), Amy Miller (ACAF President), Rich Hewitt, (State Construction Pavement Engineer), and Greg Sholar (Asphalt Materials Engineer) introduced themselves and welcomed those in attendance. All attendees of the FPC meeting introduced themselves, and record of their attendance is provided at the bottom of these minutes.

1. Construction Update (Hewitt):

- Update on the use of longitudinal grooving as a potential replacement for FC-5 in high-speed applications. *Concrete reports increase of 35% friction number. Friction data collected from line-laser friction trucks. Audience Question: How deep are the longitudinal cuts going to be? Rich Hewitt: 1/4" - 3/8" on 12.5mm mix. Tim Carter: Will grooving affect density readings? Rich Hewitt: Collect density recordings prior to grooving. Steve McReynolds: How long does it take to groove pavements? (Hewitt) Follow-up: while a lot of project factors can impact production rates, a good rough average grooving production rate suggested by a grooving contractor is 2,600 sy per shift. Eron Chambers: Will we do any transverse grooving to remove water from the road surface? Rich Hewitt: No, we are looking at longitudinal only. Concerns with noise and slower production rates of transverse grooving, plus longitudinal grooving provides very good friction and resistance to hydroplaning. Michael Horst: Will grooving affect the Structural Number of the pavement? Rich: Design will have to look at that, but something to consider. Grover Allen: Is the aspect of pooling water at rutting/depression locations in OGFC or dense mix with longitudinal grooves still being a risk for hydroplaning being researched? Rich: We are going to test it. Jim Musselman: When do we anticipate projects with grooving to happen? Rich Hewitt: One or two projects in design expected to be let in 2025, sooner projects could be possible if district decided to groove an existing area of dense-graded friction they were having high crash rates, especially wet weather crash rates (i.e. hydroplaning concerns) with.*
- IRI Incentive/Disincentive Discussion. *Specification changes will include IRI Incentive/Disincentive for Limited and Non-Limited Access roads in FY25-26 FDOT Standards, Sections 330 & 338. Limited Access average IRI increased from 2022 to 2023. 2024 is tracking with 2023 (average IRI of 49). Greg Sholar commented that smoothness incentives were low and if there as any chance of raising them. Rich Hewitt: We can consider that, but there are concerns with cost overruns exceeding the 10% maximum, especially on resurfacing projects where with 5% CPF maximum, 10% pay quantity maximum, and smoothness incentive that can reach an 8% maximum (5% on lot-by-lot and 3% project-wide consistency bonus. Jim Musselman: Do any contractors contract out IRI reports or collect RSE information prior to project finalization and FDOT recording IRI? Rick Crocker: Preferred Materials, Inc. pulls RSE every shift to do process control on smoothness.*
- RAP base update. *Proposed density target to change from 95% modified proctor to 85% RAP Gmm. Greg Sholar is changing the test method for RAP, FM 1-T 209.*
- Optional Base Course. *Minor changes to because of Sec. 283 RAP Base specification changes*

- e-Ticketing update. *Jim moved it to near the end of meeting Agenda, then it was skipped, (possibly missed or skipped in the interest of time) however, after the meeting, Diego Echeverry and Juan Higuera from TransPremier, LLC, asked me about e-ticketing. I let them know a couple years ago we added e-ticketing to the Standard Specs and that e-ticking is a contractor's option, not required. I'm going to send them a copy of the Standard Spec Sections that contain our e-ticketing specifications.*
- Grooved Caterpillar Screed. *Hubbard has used SDX Cat screed on dense and OGFC mixes with success. On dense-graded mix, 91% density from behind screed and 92-93% with static compaction passes. Rich Hewitt: Is this the end of low-density failures? Longitudinal lines are seen from the way the screed kneads the asphalt; however, they can't be felt by vehicles. Rich Hewitt is seeing if Cat can make a screed that would leave longitudinal grooves for the use in lieu of having to use diamond blades to groove pavement to provide the longitudinal grooving mentioned prior.*
- Automated Construction Inspection: *Potential working with industry to eliminate manual measurement. Ajax/Cat/Ongrade has capabilities. Working now in collecting milled cross slopes. Audience Comments: Contractor and FDOT liability concerns voiced over data like this collected. Rich Hewitt: We're just looking at what is possible with current technology already available. Potential efficiency, quality, and safety gains as automated and potentially real-time measurements provided by construction machinery can provide inspection data quicker, allowing quicker action to be taken if anything isn't being constructed correctly, plus keeping inspection staff out of way of construction equipment increases safety.*
- Update on construction-related specification changes. *Adding IRI Incentive/Disincentive language to standard specifications for limited and non-limited access roads. Removing Ride Number (RN) specification. Industry suggested specification change to clarify roundabout straightedge and density limits – yield bar.*
- Pre-Paving Meeting Agenda. *Rich Hewitt spoke with contractors and FDOT district personnel to revise the agenda to reduce time spent at the meeting and ensure Agenda items were topics and issues that have a real effect on project and project decisions and actions.*
- Process Review Findings. *Tack coverage is good, although more end of load segregation is occurring. Audience Question: Do you see specifications incorporation intelligent compaction, LiDAR scanning for inspection? Rich Hewitt: Not yet, for intelligent compaction, but there are possibilities with LiDAR scanning. Working on automated data collection now (as described above under "Automated Construction Inspection" item).*

2. Research:

- Research needs (Kwon). *Research idea solicitation open from Aug 1st – Sep 15th. Please send ideas to dallain@acaf.org and they will be submitted to the FDOT research team. Areas of research: Safety, Technology, Resiliency, Durability, Efficiency.*
- HVS update (Kwon). *Rapid Connect fiber optic placement in asphalt mat. RAP Base Study has begun. Some preliminary data was presented.*
- US-301 Asphalt Test Road update (Chami). *Joe Meier: Was RAP crushed or milled for the sections with RAP Base? Howie Moseley: RAP HVS test is millings, asphalt test road is crushed. Audience Question: Was a survey done prior to the test sections being repaved to track reflective*

cracking? Ahmad Chami: Yes, we saw-cut the pavement to act as pre-existing cracks prior to construction.

3. Design:

- Discussion of FC-5 performance issues (Moseley, Holzschuher, or Musselman). *Howie Moseley mentioned the raveling issues in general but did not provide specifics. The department has seen an increase in raveling in certain areas of the state, and is looking at additional funding to correct the more severe problems. They would likely be "FC-5 Only" projects where only the FC-5 is milled and replaced.*
- Potential changes in FC-5 design policies (Hayden). *Friction Course Policy change. Simplifying is the goal. OGFC in limited access, dense on arterial and collectors. Rick Crocker: Will this policy be retroactive? Mary Jane Hayden: Discussions are happening. Most likely will be a project-by-project determination. Eron Chambers: FC-2 is still referred, is this a mistake? Howie Moseley: No mistake, there are still some FC-2 pavements in place. We must avoid placing FC-5 on FC-2.*

4. Materials:

- Update on FDOT Balanced Mix Design benchmarking efforts (Lopp – UF). *Research in benchmarking FL mixtures underway. No rutting problem in FL based on three rutting tests performed. IDEAL RT and Hot IDT seem to be mirror images of one another for our mixtures. Audience Question: How were the plant mixes run? Greg Sholar: All plant mixtures for the research were run through a plant drum mixer. No failures or rutting problem seen. 75mm samples at 7% air voids rut more than 115mm samples at 4% air voids. As NMAS drops, CT Index drops. Tanya Nash: Were all lab and plant mixtures compacted in the lab? George Lopp: Yes, all plant and lab mixtures were compacted in a lab setting. Tanya Nash: Any plans to move to production? George Lopp: Not at this time. Audience Question: Is the intent to use lab mixture results, or follow up to field samples? Greg Sholar: To be decided later.*
- Discussion on RAP Binder Availability project (Sholar). *RBA research acknowledges that all the binder in RAP may not be active. FDOT is soliciting ideas for RBA changes from the crowd. Jamie Hill: Look for 3.5-3.8 air voids instead of a gyration number change. Eron Chambers: FTIR to see if RAP binder is compatible with the virgin binder. Gale Paige: NC State FTIR to find all RAP is different in reference to trace elements. Look at transfer + procedure to look at gradation approach validated scientific approach.*
- Update on the latest FHWA Independent Assurance report (Musselman). *Audience Question: Did you include Resolution samples in this reporting? Jim Musselman: They are not included. Audience Question: How many IV samples at first/last load of production? FDOT Response: In general, we are not trying to target first/last loads of mix; however, if you are placing material, we should expect the first and last loads meet the specifications, like all the rest. FDOT does not receive a discount for early or late loads in a subplot.*
- Mix Design verification testing changes (Greg). *All FC and SP TL-E mixtures will be tested as normal. All other mix designs will test 1 out of 4 mixtures, with the remaining being paper verified. All mix designs will be reviewed, just not all will be physically tested. Current reports show that ~30% of approved designs are used within the following three years. This is a large burden on FDOT staff. Eron Chambers: Has one traffic level been considered? FDOT: We are open to conversation.*

- Shipping/chain-of-custody for EAR samples (Nash). *Tanya Nash: We've been told cores for EARs cannot be shipped to the EAR firm, but must be transported by staff from the EAR firm. Greg Sholar: CEI should be able to ship. Best practice is to photograph the cores, box and protect them and let CEI ship them at EAR firm's or Contractor's expense.*
- Update on the status of FC-7. *Howie Moseley: FC-7 has stopped for now because of the Friction Course policy changes mentioned earlier in this meeting. There are a couple projects in the pipeline and their performance will be monitored*

5. Miscellaneous:

- **Workforce Development and Work Zone Safety Collaboration with FDOT (Miller):**
 - Asst Sec offered funding to the industry at the ACAF meeting to push forward WFD initiatives.
 - Several follow-up meetings with the Sec and his staff to develop a plan for how best to move forward. Met with other entities and have a field trip planned at the end of the month to visit a site.
 - Vince and I are committed to leading the effort with FDOT to develop something that can address the needs of our industry that can last in perpetuity.
- **Work Zone Safety:** Biweekly meetings with FDOT central office. ACAF is working with this core team to develop short/mid/long-term initiatives addressing safety in the work zone.
 - Short-term plan: SWIFTT event (Safety Work zone Innovations for Today and Tomorrow) at the summer convention. Vendors submitted to present, judged by FDOT and industry participants. The winner was awarded an opportunity to test their product with FDOT.
 - Mid-term goals: Ongoing development.
 - Long-term goal: Get speed enforcement cameras in work zones. A legislative approach similar to school zones to ensure safety for both workers and drivers. Collaboration with FTBA, floating the idea with key legislators. *Joe Meier: We need to move towards reducing speeds in all active work zones. Not just lane shifted work zones.*

6. ACAF Update on Issues Facing Their Association and Members (Miller/Allain):

- FC-5 Raveling failures. *ACAF wanted to work with FDOT and contractors to find solutions to minimize these failures and the effects it has on the traveling public.*
- RAP utilization. *SMO working on options for increased RAP usage.*
- BMD (Balanced Mix Design): *The ACAF Board will be meeting to discuss BMD and will finalize an industry position at its September Board meeting.*

7. Critical Issues Facing the Industry from a NAPA Perspective (Miller):

- Funding: Highway Trust Fund solvency.
- Carbon Reduction: Helping the industry meet demands tied to this effort.
- PFAs (Per- and Polyfluoroalkyl Substances): *Awareness of forever chemicals impact through research underway (including research being performed by Dr. Tim Townsend at UF).*

8. Women of Asphalt Update (Miller):

- National Women of Asphalt held the first Women of Asphalt Day in conjunction with the World of Asphalt event. They have 26 branches encompassing 35 states with 5088 members. Footprint now includes Canada with future ties to Europe. Will be present at SEAUPG. On-going "Lead and Inspire" webinars that are free to attend. Mentorship program continues to gain popularity with more people year over year.
- Florida branch: Seeking new leadership positions, aiming to expand reach and provide more opportunities. Organizing a team for the annual FASP clay shoot on 9/21. Networking event on 10/17 in Panama City. Meeting on 12/17 at the Expo, which is now open for registration and sponsorships.

9. King for a Day:

- What changes should be considered for the asphalt program in Florida from an industry perspective? *Rick Crocker: Thicker FC-5 for constructability and durability. Tim Carter: Increase top end of density limit. Austin Wright: Can we change core location offsets to 4' and 8'? People are standing in open lanes to core right near the lane edge and it's a safety issue. Calvin Lewis: Verify from lab mix design (premixed samples). Joe Meier: Fix inconsistency of turn lane designs and FC-5 locations within. Permitted work tying into DOT work has issues. Audience Member: Consistency with traffic levels in adjacent lanes. Eron Chambers: One traffic level. Jamie Hill: Open the paving time frame window wider. Swathi Theada: Perform field and lab comparison for BMD testing benchmarking. Michael Drew: Have more consistent typical sections on projects as a whole by lane. Tanya Nash: Tighter controls on gradations and gravities from mines.*

Name	Company	Juan Navaro	FDOT
David Allain	ACAF	Kenny Collier	FDOT
Amy Miller	ACAF	Skipper Pomicter	FDOT
Shane Williamson	Ajax Paving Industries of FL	Sam Joseph	FDOT
Austin Wright	Ajax Paving Industries of FL	Greg Sholar	FDOT
John Savage	Ajax Paving Industries of FL	Mike Ciccarone	FDOT
Rusty Reynolds	Ajax Paving Industries of FL	Ahmad Chami	FDOT
Joe Minich	Ajax Paving Industries of FL	Ohoon Kwon	FDOT
Mickey Cox	Ajax Paving Industries of FL	Charles Holzschuher	FDOT
Thomas Morgan	Ajax Paving Industries of FL	Melissa Barrs	FDOT
John Maw	Ajax Paving Industries of FL	Leonel Cortes	FDOT
Curtis Selbak	Ajax Paving Industries of FL	Kyle Kroodsmas	FDOT
Chris Harris	Anderson Columbia Co.	Bill Nowak	Halifax Paving
William Zima	Arkema	Julio Leganoa	Halley Engineering
Grover Allen	Asphalt Institute	Matt Siegel	Hubbard Construction
Kurt Korinek	Associated Asphalt	Carmine Pace	Hubbard Construction
Matt Groh	Associated Asphalt	Carl Moorefield	Hubbard Construction
Tanya Nash	ATS	Eron Chambers	Hubbard Construction
Swathi Theeda	ATS	Matthew LaChance	Ingevity
Brittany Blacklidge	Blacklidge	Gale Paige	King of Asphalt Consulting
Wes Harper	Blacklidge	Fontaine Douthett	Lengemann
Tasha McCullar	Blacklidge	Wesley Bruaw	Masci GC
Ally Glover	Cargill	Peter Fronczak	Middlesex
Jeff Futch	Conсор Engineering	Amir Zand	Middlesex
Gabriel Galeano	Custom Crushers	Joe Meier	Middlesex
Bob Flowers	CWR Contracting	Tim Carter	P&S Paving
Evan Dicenso	CWR Contracting	Hunter Light	Preferred Materials
Steve McReynolds	Duval Asphalt	David Dachenhausen	Preferred Materials
Chris Wright	Duval Asphalt	John Taylor	Preferred Materials
Evelyn Warder	Duval Asphalt	Sebastian Mutiu	Preferred Materials
Mitchell Gant	Duval Asphalt	William Sullivan	Preferred Materials
Jose Hernandez	Ergon Asphalt & Emulsions	Michael Drew	Preferred Materials
Jamie Hill	Ergon Asphalt & Emulsions	Andy Gibson	Preferred Materials
David Barrie	Florida Asphalt Contractors	Rick Fort	Preferred Materials
Earl Taylor	FDOT	Rick Crocker	Preferred Materials
Patrick Overton	FDOT	Michael Lindboe	Preferred Materials
James Greene	FDOT	Jason Holton	Preferred Materials
Howie Moseley	FDOT	Paolo Bologna	Preferred Materials
Jesus Caballero	FDOT	Scott Fowler	Ranger Construction
Garth Hall	FDOT	Richard Brown	Ranger Construction
Fazlullah Sayadian	FDOT	Renato Reis	Ranger Construction
Karen Akers	FDOT	Harold Walker	Retired, Citrus County
Hugues Charles	FDOT	Calvin Lewis	S&L Materials
James Musselman	FDOT	Richard Marcado	Superior Asphalt
Michael Horst	FDOT	Brian Pickard	THEA
Charles Crews	FDOT	Juan Higuera	Transpremier
Hays Griffin	FDOT	Diego Echevary	Transpremier
Matthew Cook	FDOT	George Lopp	University of Florida
Kevin Fussell	FDOT	Adam Mallard	V.A. Paving
Richard Hewitt	FDOT	Jeremy Black	V.A. Paving