

Flexible Pavement Committee Meeting

February 16th, 2022

State Materials Office

Gainesville, Florida

10:00am to finish

Chair Howie Moseley and Co-chair Mark Musselman welcomed those in attendance. Self-introductions were made. Attendance recorded and all who were present are provided at the bottom of these minutes.

Work Zone Safety

- Chair Musselman provided an update on multi-colored lights in work zones. Florida law will allow the use of green, red, and amber flashing lights beginning Jan 1, 2022. Research in northern states showed good results with green lights.
- Contractors urged by ACAF and FTBA to begin using these during Work Zone Safety Awareness week, April 11th. Only on projects with 55mph design and only at night time.

Work Program, [Moseley PPT](#)

- Chair Moseley provided an update on the work program in Florida. Mark Musselman noted the federal infrastructure bill is not included in this, so expect to see an increase of \$200MM per year on top of this. \$150MM allocated for the small county resurfacing program is also not part of the work program.

Pavement Design

1. FC-5 usage in turnouts.

Job just finished in Highlands County with this issue.

Mary Jane Hayden: There may be a lag between when the design requirements were updated and projects already awarded. Typically don't place it when slowing and turning. Current effort to complete a Quality Assurance review of FC-5 placement on projects.

Chair Moseley: If a contractor gets odd FC-5 plan designs, bring up the issue at the pre-con, EOR, DO, CO earlier to try to get issues solved.

2. Use of HP binder in limited production areas and handwork areas such as driveways, turnouts, gores.

Chair Moseley: That shouldn't be happening with the exception of a turnout to a truck stop, or where it makes good engineering sense. The goal is to use it only where we

need it like travel lanes, or very high volume turn lanes and ramps. Bring up issues early on in the process to see if we can get it changed.
No comments from attendees.

3. Use of Stress Absorbing Membrane Interlayers

Chair Moseley: Some unique circumstances need something like a SAMI. They are a fabric product designed to help distribute load or provide a very effective moisture barrier to protect underlying material.

Brit Blackledge: Is there a possibility for options?

Chair Moseley: Defer to engineer of record. Typically you have a specially designed material for the most effective solution at hand.

Chair Moseley: I've seen them in use at concrete joints or bridge approach slabs.

4. Pavement ME Design as it pertains to FL.

Mary Jane Hayden: Research contract with Texas A&M is underway that ends in 2023. Reports what efforts will be needed, calibration, etc. It is years away from implementation.

Chair Musselman: Issue with Pavement ME replicating top-down cracking?

Mary Jane Hayden: They have improved that portion of the program. We are looking at the new version which has a good top-down cracking module. AASHTO software would be used for this program.

Smoothness

1. Rolling Straight Edge. *Carter Video*

Richard Hewitt: Specification changes have been made and approved by FHWA and will be in the July 2022 workbook. And we are planning to make this retroactive as well.

Tim Carter: Allows us to have more flexibility on the structural lift so we can choose the changes we want to make, with limitations, to effect the final friction course.

2. Construction Spec Updates. [Hewitt PPT](#)

- Richard Hewitt: 330 removed need for manufactures letter to eliminate augers, paddles, extensions.
- Richard Hewitt: Repair options for structural course straight edge deficiencies, as described in RSE Spec change. For up to 5/16 deficiencies you can just pave over it with friction to fix it. Mill the outside edges of a low up to 8/16 of an inch.

Option to mill a high is still there. No more 3/16 or 4/16 arguments on structural lifts. If none of these work, remove and replace.

- Richard Hewitt: Six different specs changes needed recorded since 1957 ACAF minutes. Established earthwork base cross slope tolerance, curb and gutter cross slope tolerance. Elevation checks for earthwork base. Max pay quantity from 105% to 110%.
 - *Kevin Price: How are we going to get the word out to earthwork contractors?*
 - *Richard Hewitt: These changes were discussed with Ananth at FTBA and his guys. So this was an agreed change. We can talk about it at conferences, etc.*
- Richard Hewitt: Retroactive specs for Jan 2022: Tack rate simplifications. July 2022: Structural straight edge (DCE memo when book comes out in March)

3. Smoothness and incentive/disincentive update. [Hewitt PPT](#)

Steve McReynolds: Has any research been completed on good/bad IRI pavements as compared to density to see if *great density equals great smoothness*.

Richard Hewitt: We have not yet, I am sure it is something we can look at in the future.

4. E-ticketing Update. [Hewitt PPT](#)

Richard Hewitt: E-ticketing was a monumental effort that was successful for the Dept. No comments on issues from attendees.

5. Cell Phone IRI Measurements. [Lambert PPT](#)

Hank Lambert: At this time, TotalPave App does not correlate to our laser IRI vans well. Data will be submitted to TotalPave.

Binder Issues

1. Maximum Temperature for Polymer-Modified Binder. [Fitts PPT](#)

Extended storage times at high temperatures causes unnecessary aging of mixtures, reducing the life and increasing stiffness at intermediate pavement temperatures.

No comments on issues with this specification change from attendees.

2. Binder Sampling and Testing Issues

Greg Sholar: Failed binder tests. Asks, is there a better way to get a representative sample of binder from the tank? Do we need to drain multiple gallons of binder before?

Eron Chambers: A couple gallons before taking samples is what we have done.

Chair Musselman: Can we take multiple samples at a time and test all?

Chair Moseley: Let's talk to the guys taking samples to remind them to discard what needs to be discarded. We can run split samples if you want to run it privately, we don't have a problem with that.

Greg Sholar: We require samples from the tank, not the tanker.

Chair Musselman: The association can survey other states to learn how they do their binder sampling process.

Tack Coat Issues

1. Any Issues with Recent Tack Coat Spread Rate Simplification?

No comments from attendees.

2. Tack Re-Emulsification Update

Greg Sholar: Year old issue of tack re-emulsifying during rainstorms. If you see tack re-emulsifying, it should be gone sometime this summer with producers reformulating currently.

Chair Moseley: If it turns brown again, wait until it re-breaks to pave.

Mix Design Issues

1. Use of FC-5 mix designs containing 1.5% hydrated lime on projects let before July 2021.

Greg Sholar: New addition for OGFC in July 2021. If it is a Nova Scotia OGFC it should have 1.5% hydrated lime. Question presented: Can this amount of lime be used on jobs let before July 2021? YES.

No comments from attendees

2. Balanced Mix Design and Performance Testing

Chair Moseley: Nothing has changed since the Asphalt Expo, we are still actively monitoring/observing BMD nationally.

- Has there been a nationally recognized consensus on a cracking test?
- Chair Moseley: IDEAL-CT hasn't been recognized as THE cracking test, but it has the most potential with it being the most easily accessible for contractors.
- Tim Carter: The APA being used with EARs on mix that wasn't a part of the original design process. Since the APA isn't a part of the design process, what is the department's position is on analyzing the mix with the APA.
- Chair Moseley: APA has been used in D3 for mix design where rutting is more of a concern. We have a good feel for what our mixtures do.

Research Update on On-Going Projects. [Sholar PPT](#)

Specification Update. [Rilko PPT](#)

Turn around time for IV results is a concern for many attendees. Some districts provide results for IV failures/passes up to two weeks later.

Chair Moseley: Agency turnaround should be fast, under 24 hours from end of shift.

Construction Issues

1. <5ft Shoulder Density Issues.

Richard Hewitt: Let's come up with criteria for leaving shoulders in place when the mainline fails in density.

Miscellaneous Issues

1. Spray Rejuvenator on local projects

David Allain: Concerns submitted on municipalities spraying rejuvenators on newly paved roads.

Comments from attendees:

- Loss of friction is a concern, so it should only be sprayed on lower design speed roads.
- Rejuvenators have shown to decrease the viscosity of the binder, extending life. The extent of LCC savings is not known yet.

Open Forum

Tim Carter: Lane closure restriction problems with lower trucking personnel.

Rich Hewitt: At complex projects, let's evaluate traffic to try to get better/longer hours at night.

Mary Jane Hayden: We have data to do analyses and it should be done.

Meeting adjourned at 2:45PM.

Attendees

Howie Moseley, FDOT
Mark Musselman, ACAF
Rich Hewitt, FDOT
Scott Arnold, FDOT
Kevin Price, Preferred
Rick Fort, Preferred
Sebastian Mutiu, PMI
Eric Dickson, PMI
Jesus Enrique, PMI
Keith Sloan, CTI
Javier Castro, Eisman & Russo
Richard Blackwell, Kraton
Mark Marine, PMI
John Taylor, PMI
Brit Blacklidge, Blacklidge
Michael Lindboe, PMI
Joe DonAruma, PMI
Jose Hernandez, Gardner
Chris Werner, Gardner
Randy Smith, Hunt
Will Zima, Arkema
Renato Reis, Ranger
Patrick Pienkos, Ranger
Tim Carter, P&S
Matt LaChance, Ingevity
Tanya Nash, ATS
John Holton, ATS
Steve McReynolds, ATS
Jim Barlow, SFM
Andrew Ford, Kraton
Martin Thompson, IEmulsions
Brian Fennell, IEmulsions
Tracey Boggs, Anderson Columbia
Carl Dempsey, Asphalt Technologies
Bill Berry, Middlesex
Carl Moorefield, Hubbard
Eron Chambers, Hubbard
Carmine Pace, Hubbard
Charles Crews, FDOT
Michael Horst, FDOT
Matthew Cook, FDOT
Hays Griffin, FDOT
Chris Harris, Anderson Columbia
Cassady Allen, FDOT
Fazlullah Sayadian, FDOT
Jesus Caballero, FDOT

Roger Linde, FORTA
Eddie Hernandez, FDOT
Leonel Cortes, FDOT
Rodney Smith, FAC
Dave Barrie, FAC
Blake Stallworth, FDOT
Kenny Collier, FDOT
Julio Leganoa, Halley Engineering
Contractors
Heather Putnik, FDOT
Melissa Barrs, FDOT
Glenn Roberts, FDOT
Shane Williamson, AJAX
Rusty Reynolds, AJAX
Mickey Cox, AJAX
Brian Federico, Martin Asphalt
Jason Trotter, ICC
Danilo Balzarini, ICC
George Lopp, Univ. Florida
Evan Dicenso, CWR
Bryan Tuner, CWR
Poura Arabali, FDOT
Matt Groh, Associated Asphalt
Michael Worden, Associated Asphalt
Brian Pickard, THEA
Nick Zakoske, FDOT
Hank Lambert, FDOT
Kyle Kroodsma, FDOT
Noah Borelli, Univ. Florida
Gale Page, King of Asphalt
Gary Fitts, Kraton
Mary Jane Haydon, FDOT
Bruce Dietrich, Pavement Analytics
David Allain, ACAF
Greg Sholar, FDOT
Wayne Rilko, FDOT
Jamie Hill, Gardner
Jason Neighbors, Blacklidge
Sandy Lender, Asphalt Pro
Ed Stevens, Lochner
Braden Smith, Hunt Refining