

NRRRA

National Road Research Alliance

June Flexible Team Meeting Minutes



Meeting Agenda

- Welcome and Introduction
- General NRRRA Updates
- Research Pays Off
- Flexible Team Discussion Items
- NRRRA Presentation
- Wrap up

Any New Attendees at Today's Meeting?

No new attendees
at the meeting today!!



General NRRA Updates

Ben:

The executive team discussed about funding additional items, but they are going to wait until after July 1st. We are still working through some of the contracts, but it is a slow process. If you have some concerns about contracting, please let us know because it helps get it on the front burner.

NRRA Travel: The executive committee team did approve 2 trips for each agency to either attend the ICT conference in Florida or the Concrete meeting in Minneapolis. Let us know by June 14th.

Construction Activities: There is lots going on at MnROAD. The staff has been doing great getting ready for the concrete construction where we are building 8 NRRA concrete sections including cement alternatives. Letting is June 7th. We have decided on the different kinds of materials and working at purchasing the concrete for that construction. I would expect construction on the mainline on these 8 sections to be probably August or September.

General NRRRA Updates Continued

Ben:

A couple of other interesting things that are going on NRRRA funded or not related is the building of the 12 asphalt stripping test sections on the service road on our low volume road to put areas of stripped asphalt in to see if we can detect it with different equipment. Eyoab from our office is leading that pooled fund and that construction is taking currently taking place. We are starting to work with CAT and will be paving the asphalt with different lifts coming up later in June.

We are also working with Road Soup to build a 200' section with 100% recycled mill and fill. So, Road Soup is going to come out and use the millings to make that mix for CAT to pave 200' of the low volume road. CAT is also looking at their new asphalt paver screed.

We are also doing construction related to the water repellency section that we put in last fall that failed. We are investigating the reasons why it failed and getting it built back with CAT paving.

NRRRA Spring Conference: We have had great feedback from those of us who attended the conference. The facilities were great. The conference went great. I think we achieved our goal of focusing on Implementation. We are working on setting dates for the 2024/2025 pavement conference.

Research Pays Off

Lauren:

June 18, 2024

Towards the Development of Concrete-Specific Fibers to Mitigate Transverse Joint Faulting

presented by Manik Barman, Ph.D., Associate Professor, University of Minnesota-Duluth

July 16, 2024

Development of Testing and Analysis Procedures for Assessing Moisture Fluctuations in In-

Service Pavements Using Ground-Penetrating Radar (GPR) presented by Eyoab Zegeye, P.E., Ph.D.,

Principal Research Engineer, MnDOT

[Research Pays Off Webinar Series - NRRRA - MnDOT \(state.mn.us\)](https://state.mn.us)

NRRA Research Team Discussion

Items discussed: The topic of HMA specifications concerning RAP was brought up by North Dakota. Other agencies present at the meeting were asked if they would share what they require in their specifications concerning RAP. Do other agencies require the contractor to fractionate. Has there been any research on whether fractionating is giving us a better product in the end.

Curt/North Dakota: Requires the contractor to use the RAP in the mix that is previously milled from the roadway they are working on. Once it is milled off the road and hauled to the plant site there is no other requirement other than the material has to be scalped for oversize (+1 1/2”).

Jay Behnke/Illinois Tollway: We have over 30 years of history concerning recycled material use in new pavements. We have been using high friction aggregates in our stone matrix asphalt mixes for over 20 years so when a contractor goes out there and mills 2” from the roadway they have a very good idea of what that material is. We also know it was built with a polymer (SBS 70-28). If that is the case the contractor is allowed to use more ABR into their mixes. Also, we have the Balanced Mix Design test results (Hamburg wheel & crack testing) to back it up. The contractor can also use more ABR if they fractionate. They generally fractionate into two different sizes, and we find we have much more consistency. The tollway allows up to 50% ABR in their surface mixes because of that.

NRRA Research Team Presentation

Presenter: Nathan Moore - National Center for Asphalt Technology (NCAT)

Nathan Moore is an Assistant Director for Test Track Research. Nathan's specialty is asphalt material properties, asphalt mix design, aggregate testing, asphalt mixture performance testing, pavement evaluation

Presentation Title: "2024 NCAT Test Track Construction and Test Sections"

Nathan's presentation is included in the following slides!

Thank You Nathan!!!

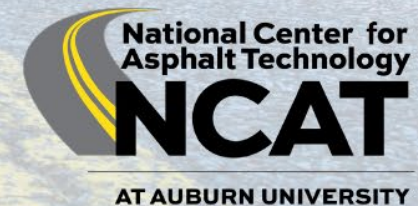
NRRA Research Team Presentation

Plans for the 2024-2027 NCAT Test Track

June 2024 ASC Meeting

June 5, 2024

Nathan Moore, P.E.



2024 – 2027 Track Sponsors



Traffic Continuation

- Additive Group (6 sections)
- Cargill
- TX BMD (2 sections)
- Oklahoma BMD (2 sections)
- North Carolina Tack Coat
 - Investigating Texture
- USB Soy-based Polymer
 - Spray-on Rejuvenator
- Mississippi Stabilized Base
- Kentucky Friction
 - Investigating shotblasting
- South Carolina Thick Lift
- BASF B2Last
 - Investigating Preservation
- Florida Density (2 sections)
- Alabama OGFC

- Two Sections
- BMD with higher RAP ($\approx 35\%$)
 - PG58-28
 - PG67-22 + RA
- Using Cargill's ANOVA 1815



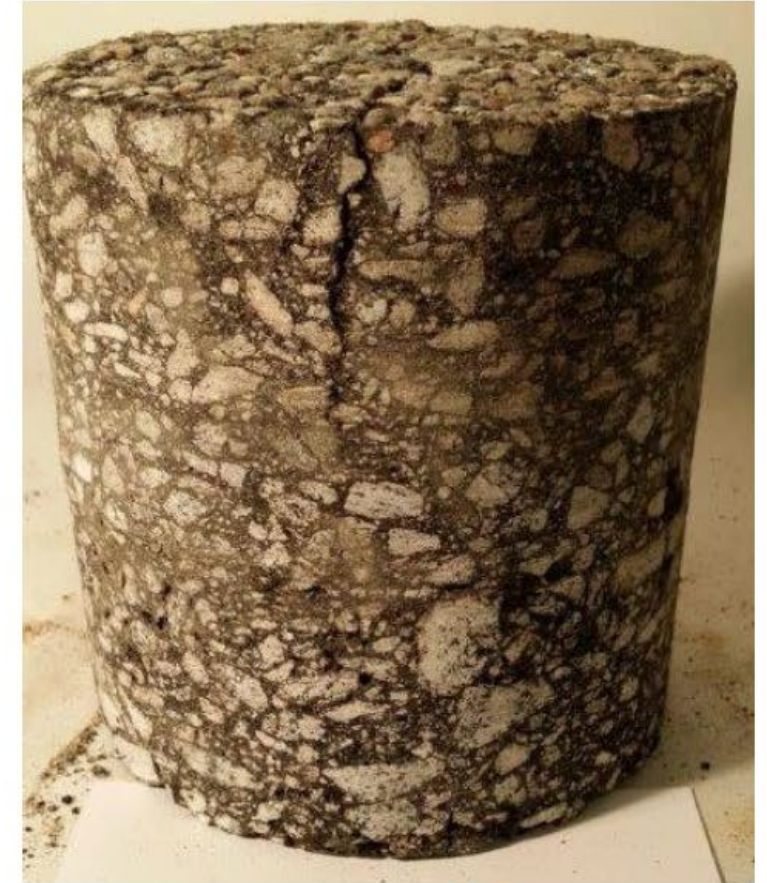
Equistar (Lyondell Basell) - Plastic



- Engineered Dry Plastic
- 2024 AG+ Evaluation



- Compare SMA to BMD
- Prevent Top-down Cracking
 - Structure similar to the 2015-2021 Cracking Group
- SMA vs. Dense-graded BMD
 - HiMA, PG76-22, and PG67-22



Mississippi DOT – OGFC



- High-Performance OGFC
- Emphasis on durability
- Local Materials



North Carolina DOT – Texture



- Texture-based mix design
- Incorporating safety into mix design
- Grooving vs. Shotblasting



Thank You for Attending

Hope to see
everyone
in July!!

