

NRRA PM Minutes
April 6, 2022 (2:30 – 3:30pm, CDT)

PM Team link - <http://www.dot.state.mn.us/mnroad/nrra/structure-teams/preventive-maintenance/index.html>

Subscribe to the NRRA Channel - <https://www.youtube.com/channel/UCPqdt93L6aIOyPDCLiHvDug>

Project Pages: Visit for updates on individual projects

1. **Welcome** – Joel Ullring – Chair. *20 attendees at the start.*
2. **Changes or additions to the Agenda** *none*
3. **Calendar meeting notices for 2022 NRRA Team meetings have been sent.**
4. **Current Membership** – see [NRRA PM Team Members](#) Web Page
 - A. 35 DOT Agency Members: CA, IA, IL, MI, MS, MN, MO, ND, WI,
Other Agency Members: IL Tollway, MN LRRB
 - B. 28 Associate members
5. **New Members or First Time Attendees**

New Members: Jialuo He – Washington State University
Asst Director of national trans center (UTC center). Self-healing PCC research.
Brett Towns – Tricor Refining, Bakersfield, CA. Marketing manager. Reclamite.
6. **Presentation – Photocatalytic Pavements**

Mike Durante, Vice President Finance & Strategic Planning, Pave Tech, Inc. (PTI)
Powerpoint with Photocatalytic Pavements. 85% of microplastic from tires and brake pads. Product name is Plus Ti. Using TiO₂. Product is 5-6 years old. Reduction by oxidation!! TiO₂ is the catalyst. Added to reclamite. Penetration is the key. Test results from Orlando. Have 20+ test sites. Also helps reduce the urban heat island. TiO₂ reduces pavement emissivity by 4X! TiO₂ also reflects ultraviolet light. TiO₂ virtually eliminate RAMPs! TiO₂ dissolves microplastics. TiO₂ also disperses surface water up to 5X faster. LA is spending \$11m/yr on cool pavements. 6 good test projects this summer. Working with NASA. Have HMA and PCC products. 1 crew + 3 vehicles can treat 7-8 miles/day. 5-10% increase to use the TiO₂. 1 mile of TiO₂ + 15 acres of forest. CAM can apply materials in MN. Products are ready to GO! This product is in the rejuvenator test study at MnROAD and on 15th street. This product may be good for Ice issues. Need large scale projects to be effective.

For further information or copy of the presentation, contact Mike at:
mdurante@pavetechinc.com
7. **NRRA Update - Ben Worel.**

Phase 2 contracts are ongoing. May conference – three may attend (DOT members). Additive group will be at MnROAD. Concrete additives will be tested.
8. **Minnesota Transportation Conference and Expo/NRRA Meeting Update**

The conference and NRRA Meeting, St. Paul, MN River Center, May 17-19, 2022.

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About 12 different session tracks. NRRA will have a booth at the conference. Need booth volunteers – ½ hour commitment. Tour of MnROAD on May 20th.

9. Phase II Research

Thinlay as a PM Treatment – Principal Investigator, Andrea Blanchette, Terracon
Technical Liaison, Ashley Buss, Iowa DOT –
April 13th is the next TAP meeting.

PM Team Co-sponsored Projects

Reclamation and Recycling Techniques to Achieve Perpetual Pavements Characteristics –
Emil Bautista, Flex Team (co-sponsored with Geotech, ICT, and PM teams).
TAP met and discussed the work plan and working to get the contract on budget.

Road Resiliency, PM and Extreme Events (flooded roadways) – Raul Velasquez, Geotech
Team (co-sponsored with PM Team)
No report.

10. Update on Other Projects:

- **Spray on Rejuvenator Test Sections** – Michael Vrtis, MnDOT. Had a TAP meeting and RPO in April will highlight this project.
The upcoming “Research Pays Off” webinar will present this projects current status. Tune in!
- **Bio-Materials Maintenance Treatments** – Chris Williams, ISU.
No Update.

11. Research Pays Off Presentations

Upcoming [“Research Pays Off”](#) webinar presentation:

April 19 **Spray on Rejuvenators Test Sections** (PM Team Project Update)

12. Round Robin

Questions/comments. Please email Joel Ullring at: joel.ullring@state.mn.us

Michael Vrtis - *Can we find a HMA and PCC section at MnROAD to test the photocatalytic process?*

13. Next Meeting

May 4, 2022 at 2:30 PM (CDT)