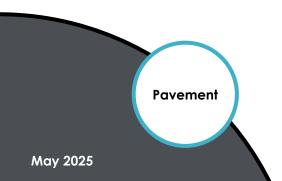


TRANSFORMING IDEAS INTO SOLUTIONS

Research Notes



Project Title: National Road Research Alliance – NRRA, phase 2, TPF-5(466)

Task Number: 3925

Start Date: February 1, 2021

Completion Date: January 31, 2026

Task Manager:

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Caltrans

DRISI provides solutions and knowledge that improves California's transportation system.

PAV TPF: National Road Research Alliance - NRRA phase 2, TPF-5(466)

This pooled fund will help direct and compliment the use of the MnROAD test track for local, regional and national research, tech transfer and implementation.

WHAT IS THE NEED?

The National Road Research Alliance (NRRA) is a Pooled Fund with the goal to improve the future sustainability of our roads through research and a commitment to cooperative implementation. The alliance sponsors research at the MnROAD test track, one of the most sophisticated coldweather pavement facilities in existence, as well as other locations.

WHAT ARE WE DOING?

Primary objectives of the National Road Research Alliance (NRRA Phase-II) are:

- Continuing the implementation of Phase 1 research outcomes.
- Conducting real-world testing at MnROAD to evaluate innovative materials, methods, and equipment.
- Developing industry standards, performance measures, and specifications to improve pavement performance.
- Promoting cost-effective techniques and technologies through technology transfer, training, and best practices.
- Supporting research partnerships and leveraging resources to address regional and national pavement challenges.
- Conducting cost-benefit analyses to ensure new methods improve operational efficiency.
- Facilitating knowledge exchange among public agencies, industry, and academia.

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WHAT IS OUR GOAL?

To advance knowledge of pavement behavior under real-world conditions and develop practical tools for implementation.

WHAT IS THE BENEFIT?

This pooled fund will help direct and compliment the use of the MnROAD test track for local, regional and national research, tech transfer and implementation. Road owner agencies will provide input and participate in the decision making needed for future MnROAD construction and research scheduled in 2017 (Phase-I) and in 2022 (Phase-2). In Phase-I MnDOT and Missouri have funded construction in both states while Phase-2 MnDOT, Missouri, Wisconsin will fund 2022-2023 construction of test sections. MnROAD will continue to support common goals. Industry and academia will also play an important role to provide critical input on long-term future trends in research and barriers to implementation, including working with their customers and members who play a direct role in implementation.

WHAT IS THE PROGRESS TO DATE?

During this quarter, NRRA membership grew to include 14 government agencies and over 85 participants from industry, academia, associations, and consultants. Idaho joined in 2024, following Montana and Nebraska in 2022.

Phase-I projects continue to show strong progress: all 13 Tech Transfer projects, all 8 projects from the 2017 Long-Term Research, all 7 from the 2020 Call for Innovation, 10 out of 11 from the 2019 Long-Term Research, and 5 out of 6 from the 2019 Call for Innovation have been completed.

In Phase-II, 2 of 14 projects from the 2021 Long-Term Research are complete. A Missouri contract on reflective cracking is expected to be developed next guarter, and two RFPs on perpetual pavements and recycled binder availability are currently in development. Projects under the 2023 Call for Innovation (0 of 16) and 2024 contracting (0 of 2)

have not yet started.

NRRA Technical Teams continued monthly meetings, which also serve as TAP meetings for research planning. The "Research Pays Off" webinar series continues, with topics selected for 2024. Agencies participated in national conferences, including the 13th International Concrete Pavement Conference and the Intelligent Construction Conference, and plan to attend TRB next guarter. MnROAD constructed 8 low/reduced cement pavement sections as part of a new sustainability-focused research initiative. A new working group has been formed to coordinate on low-carbon materials in relation to state funding opportunities.

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