

Pavement

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Project Title: National Road Research Alliance – NRRRA

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PAV TPF: National Road Research Alliance - NRRRA phase II, TPF-5(466)

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WHAT IS THE NEED?

The National Road Research Alliance (NRRRA) 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 cold-weather pavement facilities in existence, as well as other locations.

WHAT ARE WE DOING?

Primary objectives of the National Road Research Alliance (NRRRA 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.



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

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?

To date, fourteen government agencies and more than eighty-five industry organizations, associations, consultants, and academic institutions have joined the National Road Research Alliance (NRRR). These members actively share their expertise while gaining knowledge about innovative tools and methods to improve and expand transportation systems nationwide. Idaho became a member in 2024, following Montana and Nebraska, which joined in 2022.

All Phase I projects have been successfully completed. This includes the Technology Transfer initiative (13 of 13 projects), the 2017 Long-Term Research program (8 of 8 projects), the 2019 Long-Term Research program (11 of 11 projects), and both the 2019 and 2020 Calls for Innovation (6 of 6 and 7 of 7 projects, respectively). The NRRR is planning to begin the close-out process for NRRR#1 in 2025.

Phase II efforts are ongoing. For the 2021 Long-Term Research program, two of fourteen projects (14%) have been completed. Missouri's contract for the reflective cracking study is expected to be developed in the next quarter, and two additional RFPs, focused on perpetual pavements and recycled binder availability, are currently being contracted. Under the 2023 Call for Innovation, 2024 contracting, and 2025 contracting rounds, projects are in the early stages, with several amendments in process, including those for the Veta initiative and three low-carbon concrete projects.

The NRRR Annual Meeting was held in Minnesota on April 22–23, 2025, with full details and the agenda available on the NRRR webpage. The NRRR Technical Teams continued to meet monthly throughout the quarter, serving both as coordination and Technical Advisory Panel (TAP) meetings to support short- and long-term research efforts. Updated team activities can be found on the NRRR website. Monthly Research Pays Off webinars have been completed, and topics for the 2024 series have been developed.

Additionally, a new "working group" was established for agencies and members to explore opportunities for collaboration on low-carbon materials and funding coordination across states. This group may evolve into a formal technical team as needs are identified.

Finally, the contract for the Missouri Reflective Cracking and NCAT Additive Study has been finalized. Missouri DOT is funding this effort with SPR dollars to integrate these test sections into both the NRRR reflective cracking study and the MnROAD–NCAT additive study.