



NRRRA

National Road Research Alliance

Strategic Implementation Through Cooperative Pavement Research

After two decades of groundbreaking road research, the MnROAD pavement test track is ready for the next stage of its journey. Minnesota is looking for departments of transportation nationwide, as well as industry professionals and academics, to participate in determining the future of MnROAD pavement research through the National Road Research Alliance (NRRRA) pooled fund study. The goal of the NRRRA is to help agencies nationwide achieve similar benefits from real world road research, and to provide industry and academia a facility for evaluating cutting-edge pavement technologies.

“Partnerships will be essential to determining MnROAD research needs, direction and funding for the future. We want to do research that can be used by a wide range of customers throughout the world.”

Glenn Engstrom
NRRRA Executive Chair, MnDOT

REAL WORLD ROAD RESEARCH

MnROAD TEST TRACK

MnROAD is a state-of-the-art outdoor pavement research facility consisting of over 50 instrumented test cells comprising various combinations of road building materials and designs, which has been in operation since 1994. The test track includes:

- 3.5-mile mainline interstate consisting of live traffic (29,000 vehicles/day).
- 2.6-mile low-volume closed loop where controlled traffic simulate city and county conditions.

BENEFITS

MnROAD is estimated to have a produced savings in Minnesota of:

- Phase I (1994- 2006) - \$33 million/year - (9/1 B/C ratio)
- Phase II (2007-2015) - \$10.3 million/year - (4/1 B/C ratio)
- Phase III (2016-20XX) – Expect similar benefits for NRRRA members

WHY JOIN THE STUDY?

- Leverage \$2.5 million in Minnesota construction funding to meet your pavement research needs.
- Collaborate with transportation agencies, industry and academia to test cutting edge pavement technologies in real time.
- Promote solutions for local, regional and national research needs.
- Include implementation strategies and training into research projects from the beginning.
- Save millions by implementing research results in your state with the NRRRA's support.

ABOUT THE NATIONAL ROAD RESEARCH ALLIANCE

The NRRR pooled fund exists to provide guidance for the Phase III MnROAD research program. Led by an Executive Committee of state DOT members, NRRR will plan and oversee the entire lifecycle of MnROAD research, from the selection of research topics to communication and implementation of results. NRRR will consist of five project teams: Flexible, Rigid, Geotechnical, Preventive Maintenance and Technology Transfer.

Develop ↻ Collaborate ↻ Research ↻ Implement

“We’re really excited about being part of the NRRR, and how MnROAD research results have given us better, more cost-effective ways to preserve transportation infrastructure.”

Steve Bower
Michigan DOT

“We’ve leveraged spectacular results from MnROAD research, building one of the largest pervious road systems in the world and dramatically improving our stormwater management.”

Mark Maloney
City of Shoreview, Minnesota

NRRR MEMBERSHIP

NRRR members will help shape the MnROAD research program by guiding the selection of research projects, disseminating research results, and helping agencies put the results into practice.

- **Transportation Agency Members (\$150k/year):** Participates in decision making about MnROAD construction and research objectives, determine budgets and timelines, and select and participate in project teams. Membership includes travel funding for NRRR meetings and conferences.
- **Associate Members (\$2k/year):** Provide expertise throughout the research process by giving input on long-term technology trends, identifying innovative solutions to research problems, and determining the viability of research results by actively participating in projects. Members also have an opportunity to provide materials for testing and to propose design approaches based on field experience. Academia benefits include research and data analysis opportunities to support faculty sabbaticals and student projects.

MnROAD ALLOWS MEMBERS TO:

- Find innovative, cost-saving technologies that help preserve pavements and improve their performance.
- Evaluate pavement performance, materials, and design under real world conditions.
- Examine how factors such as moisture, frost, traffic, construction practices, and materials interact through the use of instrumentation.
- Design customized experiments supporting specific research needs that utilize the experienced MnROAD research staff and its equipment.
- Conduct tests in a safe work zone because of MnROAD’s unique ability to divert traffic.
- Develop tools and methods based on actual performance data to improve the design, construction, and maintenance of pavements.

TO LEARN MORE VISIT



<http://dot.state.mn.us/mnroad/nrrr>

We invite you to join this effort to advance pavement engineering. Our combined strength will provide the most cost effective solutions to the challenges facing transportation agencies across the nation. Please contact NRRR Executive Chair Glenn Engstrom at 651-366-5531 to discuss this partnership opportunity further.

MnROAD

