

Fiscal Year 2010 Approved University Research Proposals

A Focus on Projects that Address [Mn/DOT's Strategic Vision](#) and [Research Services' Strategic Areas for Research and Implementation](#)

Sixteen research proposals were recently selected for Fiscal Year 2010 approval and funding by Research Services and the newly formed Transportation Research & Innovation Group (TRIG).

A breakdown of the project selection finds:

- An enhanced focus on bridge maintenance and safety research, with four such projects.
- A continued focus on Minnesota university partnerships and research, with ten projects going to the University of Minnesota, and two to Mankato State University.
- A renewed focus on applied research and research results that are readily usable for transportation practitioners (End-User/Roadmap Products); this helps ensure that dollars spent on transportation research equal usable results and cost savings for Mn/DOT and the State of Minnesota.

Strategic Vision, Strategic Research

Critical Issues/Responses

- Seven Infrastructure Preservation projects that address “Aging infrastructure”
- Three Green Roads projects that address “Environmental concerns”
- One Multi-Modal Infrastructure project that addresses “Rapid change and mobility”

Core Values and Strategic Directions

- Three Traffic Safety projects that help “Maintain safety as a priority”
- Two Congestion Management projects that address “Mobility – Improving access and enhancing the movement of people and freight”

FY2010 Approved Research Proposals

Roadmap Focus Area	Roadmap Product (formerly End-User Product)	Proposal #	Proposal Title and Link	University	Principal Investigator
Funded Proposals					
Congestion Management	EUP- 30	P2010018	The Effectiveness of Dual-Phase Changeable Message Signs (CMSs)	U of MN - Twin Cities	Harder, Kathleen A.
Traffic Safety	EUP- 25	P2010104	Implementing, Training, and Outreach for MN/DOT Pavement Marking Tool - Phase II	Iowa State	Smadi, Omar
Infrastructure Preservation	EUP- 10	P2010002	Mechanistic modeling of unbonded concrete overlays	U of MN - Twin Cities	Ballarini, Roberto
Multi Modal Infrastructure	EUP- 15	P2010061	Advancing the Public Interest in Public-Private Partnerships of State Highway Development	U of MN - Twin Cities	Zhao, Zhirong
Traffic Safety	EUP- 26	P2010021	Portable, Non-Intrusive Advance Warning Devices for Work Zones with or without Flag Operators	U of MN - Twin Cities	Hourdos, John
Infrastructure Preservation	EUP- 8	P2010201	Cost-Effective Pavement Preservation Solutions for the Real World	MnSCU, Mankato	Wilde, J.W.
Infrastructure Preservation	EUP- 7	P2010053	Development of an Advanced Warning System for Structural Distress in Tied Arch Bridges	U of MN - Twin Cities	Schultz, Arturo E.

Infrastructure Preservation	EUP- 2	P2010012	Full-Depth Precast Concrete Bridge Deck System – Phase II (inverted tee)	U of MN - Twin Cities	French, Catherine
Infrastructure Preservation	EUP- 5	P2010052	Bridge Thermal Monitoring Program - Phase II (Wakota Bridge Monitoring)	U of MN - Twin Cities	Schultz, Arturo E.
Infrastructure Preservation	EUP- 11	P2010204	Subgrade Stabilization ME Properties Evaluation and Implementation	MnSCU, Mankato	Budge, Aaron
Traffic Safety	EUP- 29	P2010103	Pavement marking performance under challenging pavement surface conditions - Chip Seal, Seal Coat and Micro surfacing	Iowa State	Smadi, Omar
Congestion Management		P2010026	Development of Freeway Management and Operational Strategies with IRIS-In-LOOP	U of MN - Twin Cities	Kwon, Eil
Green Roads	EUP- 20	P2010058	Research and Assess the Farmer and MN-DOT Economic and Environmental Costs and Benefits of Living Snow Fences including carbon impacts	U of MN - Twin Cities	Wyatt, Gary
Green Roads	EUP- 21	P2010041	Performance Assessment of Oversized Culverts to Accommodate Fish Passage	U of MN - Twin Cities	Nieber, John L.
Green Roads	EUP- 19	P2010108	Wetblade to Control Invasive Species	Michigan Technological Inst.	Tarasoff, Catherine
Infrastructure Preservation	BR-H032	TBD	Engineering Study to Review Innovative Technologies for Identification of Delaminations in Bridge Decks and Structures	TBD	TBD
				FY10 Total =	\$785,934