

update

News about transportation research and the work of the Minnesota Local Road Research Board

Making a difference.



FY2015 LRRB Research Projects Approved

In December, the LRRB approved the following research projects:

- Examination of Driver Performance and Distraction with In-vehicle Signing
- Study of De-icing Salt Accumulation and Transport Through a Watershed
- Evaluation of Safety and Mobility of Two-Lane Roundabouts
- Alternate Design Methods to Renew Lightly Traveled Paved Roads
- Optimal RAP Content for Minnesota Gravel Roads
- Barriers to Right-of-Way Acquisition and Recommendations for Change
- Bio-Fog Seal Evaluation (LRRB/MnDOT)
- Traffic Impacts of Bicycle Facilities
- Bio-Fog Seal Evaluation (LRRB/MnDOT)
- Full Depth Reclamation (FDR) for Urban and Suburban Street Application
- Stakeholder Attitudes, Knowledge and Engagement in Local Road Systems Planning Decision-Making
- Minnesota Local Agency Pavement Marking: Mining Existing Data
- Modernizing Road Construction Plans and Documentation

If you would like to participate in any of these projects, please contact Hafiz Munir at (651) 366-3757 or hafiz.munir@state.mn.us.

2013 Engineer of the Year Awards

- The Minnesota County Engineers Association (MCEA) has named **Sue Miller** (Freeborn County) its 2013 County Engineer of the Year.
- The City Engineers Association of Minnesota (CEAM) has named **Bill Monk** (Chaska) and **Reid Wronski** (River Falls, WI) its 2013 City Engineers of the Year.



MCEA 2013 County Engineer of the Year, Sue Miller



CEAM 2013 City Engineer of the Year, Bill Monk



CEAM 2013 City Engineer of the Year, Reid Wronski

Eckles Wins Environmental Excellence Award



Klayton Eckles, the City of Woodbury's Engineering and Public Works Director, recently received the Charles Walter Nichols Award for Environmental Excellence from the American Public Works Association (APWA). Eckles, whose contributions have included water resources protection and management, was recognized during the 2013 APWA Congress in Chicago.

LRRB and RIC Member Updates

LRRB updates:

- **Kaye Bieniek** (Olmsted County) has replaced Rick West (Otter Tail County) on the LRRB board.

RIC updates:

- **Michael Flaagan** (Pennington County) has replaced **Rich Sanders** (Polk County) on the RIC board.
- **Merle Earley** (MnDOT D4) has replaced **Walter Leu** (MnDOT D1) on the RIC board.



Kaye Bieniek



Michael Flaagan



Merle Earley

National Recognition for LRRB

Planning for Safety in Otter Tail County

A new tool is saving lives on our local roadways. The County Road Safety Plan Process (CRSP) helps county officials identify high-risk locations and implement unique safety plans to reduce the number of severe crashes on their roadways. Not only does the plan assist with prioritizing projects and applying for Highway Safety Improvement Plan (HSIP) funding, it also facilitates roadway safety discussions with the county board, neighboring counties, and the public. Otter Tail County, one of the first counties to complete its CRSP, has already identified and secured funding for several projects – many in partnership with nearby counties. Otter Tail County's safety initiatives, along with various safety-related projects funded by the LRRB, were recently highlighted in the Federal Highway Administration's (FHWA) fall 2013 *Safety Compass* newsletter. Please visit <http://safety.fhwa.dot.gov/newsletter/safetycompass/2013/fall/> to read the full article.

Cost-Saving Device Removes Stormwater Sediments

A 2013 article in the national newsletter *Research Makes a Difference* highlights the important role pollution control devices play in minimizing the harmful effects of stormwater runoff. Researchers at the University of Minnesota's St. Anthony Falls Laboratory developed the SAFL Baffle, a device that fits into a new or existing sump structure to keep sediment out of downstream water bodies and BMPs. To save on costs, MnDOT recently started using standard pumps (a common feature of stormwater infrastructure) equipped with the SAFL Baffle to remove pollution-carrying sediments from runoff. In addition to eliminating washout and improving sediment capture, sumps containing with the device – now widely used in Minnesota – remove sediments at approximately one-fourth the cost of previous devices. Please visit <http://research.transportation.org/Pages/ResearchMakestheDifference.aspx> to read the full article.



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Highlighted LRRB Projects

Developing Salt-Tolerant Sod Mixtures for Use as Roadside Turf

As previous sod installations continue to fail, researchers have developed a new set of recommendations for salt-resistant roadside turf. Sponsored by the LRRB, a recent University of Minnesota study evaluated various combinations of grass species and cultivars to determine the most salt-tolerant sod mixtures. Preliminary results indicate that seed mixtures containing fine fescues along with tall fescue in small proportions may have the best chance for survival. Top-performing mixtures also contain significant portions of slender creeping red fescue, some Kentucky bluegrass, and hard fescue. Please contact principal investigator Eric Watkins (ewatkins@umn.edu) with questions.

Applications of the Systemic Approach to Safety

Victor Lund (St. Louis County) and **Keith Knapp** (Iowa Local Technical Assistance Program) recently hosted an interactive workshop at the Transportation Research Board (TRB) Annual Meeting on Jan. 12, 2014 in Washington, D.C., to discuss how local agencies can overcome the challenges of implementing a systemic approach to safety. (According to the FHWA, a systemic-based approach includes widely implemented improvements based on high-risk roadway features correlated with particular severe crash types.) The presentation, designed for safety program managers and professionals, outlined the methodology, benefits, and challenges of using systemic applications as well as various tools, applications, and resources that support the new approach.

Highlighted RIC Projects

Traffic Data Collection Processes Study

This study explores the three traffic data collection options available to cities and counties outside the metro area – using MnDOT (current process), the respective county, or a consultant – and ranks each method according to effectiveness and cost. Please visit <http://www.lrrb.org/pdf/2014RIC51A.pdf> to learn more.

Traffic Data Collection Improvements

This study explores low-cost, non-intrusive data collection options as possible alternatives to traditional methods such as tube counts, which require personnel to work on or near the roadway. Please visit <http://www.lrrb.org/pdf/2014RIC51B.pdf> to learn more.

LRRB Celebrates 55th Anniversary

The LRRB turns 55 this year, celebrating decades of research and implementation that has helped Minnesota cities and counties better do their jobs. To honor this important achievement, the LRRB is contacting current and former members to learn about their experiences and memories of working with the LRRB over the years. These stories and other milestones will be highlighted in the August newsletter.

Finding a Smoother Way for Dirt Roads

Minnesota generates more than 200,000 tons of shingle waste each year. A small percentage is recycled into asphalt pavement mixtures, but there is still a lot of waste left over. MnDOT researchers have devised a solution that combats two problems – shingle waste and road dust – by using ground-up shingles for surfacing and controlling dust on dirt roads. The StarTribune showcased this valuable research in a recent article, which you can find at <http://www.startribune.com/local/east/244095151.html>.

2014 Calendar of Events

Feb 18: Center for Transportation Studies Career Expo

University of Minnesota, Minneapolis, MN
<http://www.cts.umn.edu/events/careerexpo/>

March 4-6: Minnesota's Transportation Conference

DoubleTree by Hilton Hotel, Bloomington, MN
<http://mntransportationconference.org/>

March 20-21: Concrete Paving Association of Minnesota Paving Workshop & Awards Banquet

Arrowwood Conference Center, Alexandria, MN
<http://www.concreteisbetter.com/>

May 7-9: American Public Works Association Spring Conference

<http://www.apwa-mn.org/>

May 15: MN LTAP Roadway Maintenance Training and Demo Day

Alexandria Technical and Community College, MN
<http://www.mnltap.umn.edu/training/roadway/>

May 21-22: Center for Transportation Studies Transportation Research Conference

Saint Paul RiverCentre, Saint Paul, MN
<http://www.cts.umn.edu/events/>