

2005 NCAUPG TERRA and MNROAD



**Road
Research,
What's New?**

Transportation Engineering & Road Research Alliance (TERRA)

Aggregate & Ready Mix Association

Minnesota Asphalt Pavement Association

Associated General Contractors of Minnesota

Concrete Paving Association of Minnesota

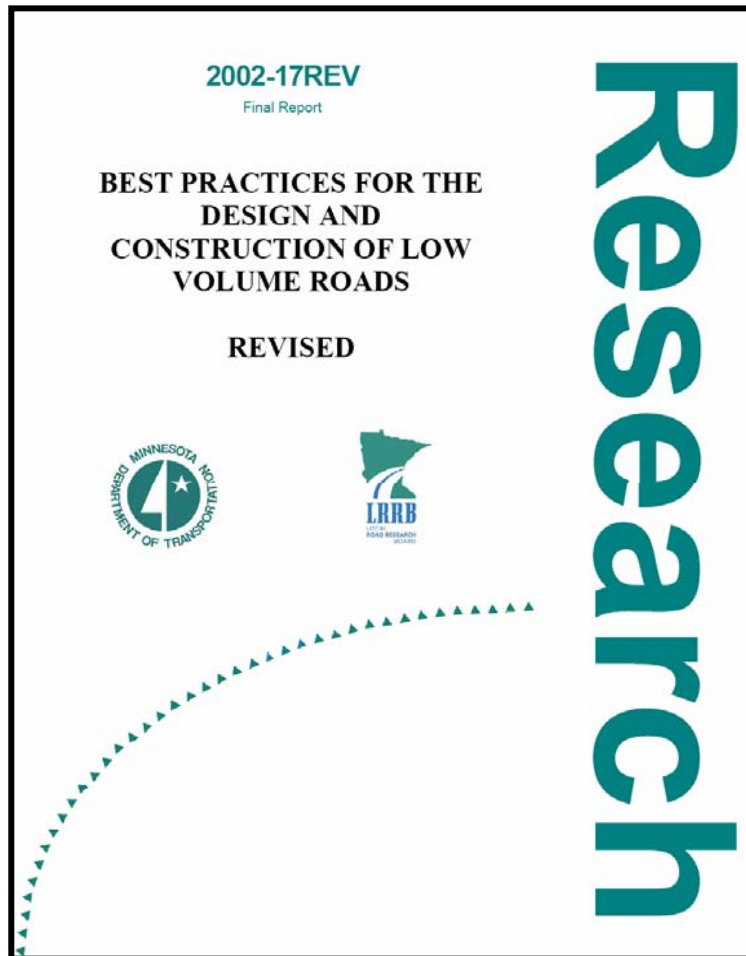
Federal Highway Administration

Local Road Research Board

Minnesota Department of Transportation

University of Minnesota

Recent Research Results



- **LVR Best Practices**
- **LVR HMA Web Design Tool**
- **Optimizing PCC Ride**
- **Alternative Dowel Bars**
- **Bumps in Overlays of Sealed Cracks**
- **Saw and Seal**

2003 MnROAD Maintenance

Treatment Type	% IRI Change (2003-2004)
Do nothing (Control)	27% rougher
Mastic Fill Alone	no change
Single Slurry	8% smoother
Double Slurry	24% smoother
Mastic Fill + Double Slurry	35% smoother

2003 Average IRI (before) = 2.43 m/km

2004 Average IRI (after) = 2.51 m/km

2004 MnROAD Efforts



- **Mesabi Lower Cherty Layer**
 - LVR HMA Section
 - LVR PCC Section
- **LVR Superpave Test Section**
- **Thin White Topping**
- **MicroSurfacing**



Future Pavement Research



- **Calibrate New Pavement Design Methods**
- **Recycled Materials**
- **Maintenance Techniques**
- **Low Temperature Cracking**
- **Non-Pavement Research**
- **Intelligent Compaction**
- **Tire-Pavement Noise**

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TERRA Exists to:

- **Guide future pavement research investments**
- **Share information, ideas, and research results**
- **Develop relationships for expanded collaboration**
- **Attract public, industry, and academic partners to contribute resources**
- **Expand entrepreneurial use of MnROAD**

www.cce.umn.edu/pavement

UNIVERSITY OF MINNESOTA

Ninth Annual
**Minnesota
Pavement
Conference**
February 17, 2005
*Continuing Education and Conference Center
St. Paul campus
University of Minnesota*

Sponsors:
Minnesota Department of Transportation
Minnesota Local Technical Assistance Program (LTAP)
Department of Civil Engineering, University of Minnesota
Minnesota City Engineers Association
Minnesota County Engineers Association
Minnesota Street Superintendents Association
Minnesota Public Works Association
State Aid for Local Transportation
Local Road Research Board (LRRB)
American Council of Engineering Companies of Minnesota

Hosted by:
Center for Transportation Studies, University of Minnesota

Facilitated by:
College of Continuing Education, University of Minnesota



- **9th Annual
Pavement
Conference
February 17,
2005**
- **UM-Saint Paul**

The End/Questions



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