



## ***LRRB Proposal Selection Meeting***

December 3-4, 2014

Coffman Memorial Union Campus Club

University of Minnesota

300 University Ave, SE

Minneapolis, Minnesota 55455

## **MINUTES (draft)**

### **LRRB Members Present:**

Bruce Hasbargen (Chair), Beltrami County  
Julie Skallman, MnDOT - State Aid  
Mitch Rasmussen, Anoka County  
Lyndon Robjent, Carver County  
Tim Stahl, Jackson County  
Steve Koehler, City of New Ulm  
Kaye Bieniek, Olmsted County  
John Powell, City of Savage  
Tom Ravn, MnDOT - Construction Office  
Linda Taylor, MnDOT - Research Services  
Laurie McGinnis, U of M - CTS

### **Others Present:**

Debbie Sinclair, MnDOT - Research Services  
Bruce Holdhusen, MnDOT - Research Services  
Hafiz Munir, MnDOT - Research Services  
Chris Kufner, MnDOT - Materials Office  
Brenda Thomas, U of M – CTS  
Alan Rindels, MnDOT – Research Services

### **I. Call To Order (Day 1)**

The meeting was called to order at 10:00 AM on December 3 by the Chair, Bruce Hasbargen. The purpose of the meeting, to select the FY16 research proposals for funding, was reviewed, and the agenda was approved by the Chair. Attendees introduced themselves. Mitch Rasmussen will be replacing Julie Skallman, who is retiring December 5, starting December 8, 2014, as State Aid Engineer and LRRB member.

The minutes of the October 27, 2014, LRRB meeting were approved.  
Motion: Steve Koehler, second by Lyndon Robjent.

### **Pending action items from previous meetings - Linda Taylor**

- Discussion of any action items not otherwise on the agenda:

**September Action Item #9:** *Tim Stahl and other interested county engineers will develop a letter to State Aid to initiate a dialog about updating the MnDOT Detour Compensation Policy.*

Tim Stahl discussed with John Brunkhorst about bringing the issue to the MCEA executive board, and decided to wait until January. It was discussed with Ted Schoenecker and will be kept at a discussion level to keep it from becoming too political. Julie Skallman recommended closing the action item at this time since the discussions are moving forward in appropriate channels outside LRRB.

**September Action Item #5:** *Carole Wiese will facilitate bids for meeting accommodations at the joint LRRB/RIC meeting in Walker, June 17-18, 2015.*

The RFP was posted but no bids received. Bruce Hasbargen will assist in expanding the search to areas around Walker and the RFP will be reposted.

**September Action Item #15:** *Nick Busse and Julie Skallman will look at the archive of past LRRB and RIC products, such as VHS videotapes, and decide which ones to keep or toss.*

The keep-or-toss review of archived past LRRB and RIC products, such as VHS videotapes, is still in progress. Nick Busse will take the lead and bring any questions to the LRRB Outreach committee.

**October Action item #9:** *Bruce Holdhusen will follow up with Jim Grothaus regarding the culvert repair best practices report and any gaps in the ODL course that could be met with material from that report, and to discuss if there is a need for additional scope in the online training project.*

Jim Grothaus said the TL from the project on culvert repair best practices was a TAP member on the project to develop the ODL course, so it had been considered and discussed. Item closed.

## **II. Budget and Administration**

Debbie Sinclair reviewed the current budget summary spreadsheets:

- Approximately \$848,000 is available in FY2016 for funding new projects.
- INV 990 (OPERA program): Unused OPERA budget from previous years \$34,850 was rolled back into the LRRB budget. A contract for FY15 was executed.

Conferences: A handout of 2014/15 conferences was provided in the meeting materials.

- Guy Kohnhofer will be attending TRB annual meeting under LRRB funding. Guy is the new RIC member replacing Mitch Rasmussen on the RIC.
- There are currently still two openings for TRB, since Mitch Rasmussen will not be able to attend and Brian Boder will be traveling under State Aid funds.
- Tim Stahl brought forward a question from the RIC for clarification on the LRRB policy regarding RIC members' eligibility for traveling to conferences in the U.S. when there are unused LRRB spots. Julie said the Board can approve RIC travel,

and the best way is for RIC members to express interest in specific conferences contingent upon an opening being available.

- Tom Ravn expressed interest in attending the Low Volume Roads conference in Pittsburgh.
- Bruce Holdhusen expressed interest in attending the 2015 NLTAP conference in Savannah, Georgia, if there is an opening for staff.
- Kaye Bieniek said the date for the 2015 TZD conference has been set for October 29-30, 2015.

**Action item 1: Contact Debbie Sinclair if you are interested in attending any conferences.**

Other budget business:

- Debbie Sinclair asked for Board approval of an increase in the cost of the contract for “Development and Integration of Advanced Timber Bridge Inspection Techniques for NBIS purchase Equipment and Train Users.” The original estimated cost had been approved at the LRRB summer meeting for \$37,000, but the actual work plan cost was submitted as \$42,794, which is slightly over the 15% increase threshold and requires Board approval.

***Motion by Julie Skallman, seconded by Tim Stahl, to approve the revised amount of \$42,794 for a contract with Brian Brashaw for “Development and Integration of Advanced Timber Bridge Inspection Techniques for NBIS purchase Equipment and Train Users.” The motion carried.***

### **III. Research Implementation Committee update – Tim Stahl**

Tim Stahl provided an update on RIC activities:

- Guy Kohlnofer, from Dodge County, is a new RIC member, taking the place of Mitch Rasmussen.
- The RIC meetings will be at several locations over the next year, including Edina, Golden Valley and Woodbury.
- Truck Weight Compliance training for local law enforcement personnel can be arranged through Jim Grothaus at CTS.
- RIC is funding a TRS on the topic of a survey of why PCC or HMA is being selected by local agencies, and to provide best practices for local agencies to manage PCC projects (maintaining access to driveways and residential streets, etc.).
- Sarah Sondag from the MnDOT Bridge office provided an update on bridge maintenance research implementation and training at the last RIC meeting. They offer a series of Bridge Maintenance Academy training classes for bridge workers, open to local agencies.
- The new project on “Prevention of Stripping Under Chip seals” is underway.
- Joel Ulring is working on a State Aid internal project to improve the FWD Viewer tool and create better specifications for FWD data collection.
- Two new research ideas will be brought to the LRRB/RIC joint meeting in June:
  - Mitch’s idea about exploring the local agency role in developing construction staging plans and impacts to local businesses.
  - Research need statement received from City of St. Cloud on allowing snow plows to pre-empt traffic signals.
- Sign retro-reflectivity training manuals have been distributed, and Mark Vizecky has updated the web site. Jim Grothaus will be preparing a proposal for LTAP to provide

hands-on training that State Aid believes will be needed for local agencies to meet the new requirements.

- The online Sign Management training course is ready and looks good.
- A video showing heavy truck and farm vehicle pavement damage was discussed but will be put on hold due to other priorities for funds.
- The task in SRF’s contract for temporary traffic control on low volume roads (Task 9) was re-scoped and increased by \$15,000; Task 12 for a future task (to be determined) was reduced by \$15,000.

**Action item 2: Tim Stahl will provide his RIC notes for distribution to the Board.**

**Action item 3: The RIC agendas or minutes will be included in future LRRB meeting books, as requested by Lyndon Robjent**

**IV. Other Funding Requests**

- Kaye Bieniek proposed LRRB funding for a 5-year continuation of the project “Performance Monitoring of Olmsted County CR 117/104”, The monitoring will be done by the Office of Materials and Road Research is proposed for a cost of \$44,000 spread out over 5 years. Matt Lebens would be the PI.
- Background: The road was originally reconstructed in 2000, including test sections with 3 types of base materials and 2 types of asphalt binders. It was monitored for 5 years under the initial LRRB project.
- A second project was to monitor roadway from 2008 to 2014. This project has been completed. The proposal is to continue monitoring the test sections until it failure. Some test sections are showing distress, but some are still in good shape.

**V. Research Proposals for FY2016 Funding**

NS	Research Proposal Presentations by Principal Investigators	PI
397	Alternatives to Seal Coats (\$89,831)	Ed Johnson (OMRR) & Ashley Buss (ISU)
379	Cost-competitive Timber Bridge Designs for Long Term Performance (\$212,883)	Brian Brashaw (UMD/NRRI)
401	Slope Stabilization and Repair Solutions for Local Government Engineers (\$78,124)	David Saftner (UMD)
399	Life-Cycle Cost Analysis Tool for Minnesota Pavements (\$109,279)	Derek Tompkins (UMN)
393	Installation of Insulation Over Centerline Culverts (\$50,000)	Halil Ceylan (ISU)
390	Using Mobile Microwave Technology Concurrent with HMA Paving to Extend Longitudinal Joint Life (\$188,357)	Larry Zanko (NRRI) (by phone)
395	Using Performance Measures to Assess the Impact of Freight Operation on Regional Freight Corridors (\$90,665)	Chen-Fu Liao (UMN)
382	Pothole Prevention and Innovative Repair (\$129,914)	Mihai Marasteanu (UMN)
KB10	Chloride Retention in Minnesota Soils (\$247,356)	John Gulliver (UMN)

## **VI. Other Funding Requests**

Tim Stahl is still in discussions about the appropriate level of participation and funding support for the Road Dust Institute. He will bring forward a funding request at a future meeting.

Lyndon Robjent requested Board consideration of a proposal on the topic “**Optimizing Cold In-Place Recycling (CIR) Applications through Fracture Energy Performance Testing.**” Dan Wegman, the principal investigator from Braun Intertec, presented the proposal to evaluate a range of CIR additives for reconstruction of asphalt roads. The project will include an asphalt mixture fracture energy test for evaluating the additives, either disk compact tension (DCT) test or semi-circular bending (SCB) test, and inter-laboratory comparison between Braun, MnDOT and AET (Dave Rettner will be co-investigator). The project is proposed to cost \$90,060 and will take approximately 17 months.

## **VII. Preliminary Discussion (see December 4 for funding decisions)**

Potential cost sharing with MnDOT for the following 7 proposals:

- NS 401 – Slope Stabilization (2 proposals will be heard by LRRB, only 1 will move forward to be heard by MnDOT TRIG next week)
- NS 390 - Mobile Microwave Technology Concurrent with HMA Paving
- NS 382 - Pothole Prevention and Innovative Repair
- NS 392A - Examining signing options for improving safe driving behaviors in work zones (RSI/UTC project)
- KB 04/05 - Transportation Futures Project
- NS 396 - Evaluation of Stabilized Full Depth Reclamation
- NS 380 - Assessing the Impact of Pedestrian Activated Crossing Systems

**Action item 4: Use the CTS Research Needs Focus Group contract to have CTS re-write LRRB Research Need Statement NS 395 on the topic of the “Freight Overflow Impacts on the Local Road System,” with input from Lyndon Robjent and Mitch Rasmussen.**

## **VIII. Adjournment**

The meeting was adjourned for the day on December 3 by the Chair, Bruce Hasbargen at 4:30 P.M.

**IX. Call to Order (Day 2)**

The meeting was called to order at 8:30 AM on December 4 by the Chair, Bruce Hasbargen.

**X. Research Proposals for FY2016 Funding**

NS	Research Proposal Presentations by Principal Investigators	PI
KB04/05	The Transportation Futures Project: Planning for Technology Change (\$100,000)	David Levinson (U of M)
396	Evaluation of Stabilized Full Depth Reclamation (SFDR) (\$76,992)	Charles Jahren (ISU)
400	Options and Guidance When Using Base Stabilization Additives (\$94,988)	Charles Jahren (ISU)
401	Maintenance Solutions for Slope Failure (\$105,948)	Aaron Budge (MSU) / Vern Schaefer (ISU)
KB10/13	Expanding the Success of Salt-Tolerant Roadside Turf Grasses through Innovation and Education (\$168,974)	Sam Bauer (U of M)
380	Assessing the Impact of Pedestrian Activated Crossing Systems (\$153,962)	John Hourdos (U of M)
399	PCC and HMA Evaluation Tool for Local Agencies (\$134,328)	David Jeong (ISU)

**XI. Recognition of Julie Skallman Leadership and Contributions to LRRB**

A plaque and memento were presented to outgoing State Aid Engineer Julie Skallman in recognition and gratitude for her leadership and contributions over many years to the LRRB. Julie will be retiring from State service on December 5, 2014. Kudos and accolades were provided by LRRB members around the table, recalling personal and professional instances of Julie's outstanding leadership and mentoring.

## XII. Funding Decisions

<b>LRRB FY2016 Research Proposal Funding Decisions (Dec. 3-4, 2014)</b>					
<b>Need Statement #</b>	<b>Principal Investigator (PI)</b>	<b>Project Title</b>	<b>INV#</b>	<b>LRRB approved amount</b>	<b>Funding Decisions</b>
<b>Approved for LRRB funding</b>					
KB04/05	David Levinson (U of M)	The Transportation Futures Project: Planning for Technology Change	982	\$50,000	\$100,000 requested, Approved for 50/50 LRRB/TRIG Funding (Motion by Laurie McGinnis, 2nd by Lyndon Robjent)
396	Charles Jahren (ISU)	Evaluation of Stabilized Full Depth Reclamation (SFDR)	981	\$76,992	LRRB Funded \$76,992 (Motion by John Powell, 2nd by Bruce Hasbargen) (TRIG added an Additional \$50K for MnDOT Sites for total up to \$126,992)
401	David Saftner (UMD)	Slope Stabilization and Repair Solutions for Local Government Engineers	979	\$78,124	Approved for 100% LRRB Funding (Motion by Steve Koehler, 2nd by Bruce Hasbargen)
KB10/13	Sam Bauer (U of M)	Expanding the Success of Salt-Tolerant Roadside Turfgrasses through Innovation and Education	984	\$168,974	Approved for LRRB Funding (Motion by Steve Koehler, 2nd by Julie Skallman)
399	Derek Tompkins (U of M)	Life-Cycle Cost Analysis Tool for Minnesota Pavements	985	\$109,279	Approved for LRRB Funding (Motion by Julie Skallman, 2nd by Tom Ravn)
379	Brian Brashaw (UMD)	Cost-competitive Timber Bridge Designs for Long Term Performance	983	\$212,883	Approved for LRRB Funding. (Motion by John Powell, 2nd by Bruce Hasbargen) Linda will contact Iowa DOT about co-funding it.
382	Mihai Marasteanu (U of M)	Pothole Prevention and Innovative Repair	980	\$129,914	Approved for LRRB Funding (Motion by John Powell, 2nd by Steve Koehler) (TRIG Modified the Scope & Additional funding up to \$100K)
N/A	Matt Lebens (MnDOT)	Performance Monitoring of Olmsted County CR 117/104	986	\$44,000	Approved for LRRB funding (Motion by Kaye Bieniek, 2nd Linda Taylor)
N/A	Dan Wegman (Braun)	Optimizing Cold in Place Recycling (CIR) Applications through Fracture Energy Performance Testing	987	\$90,600	Approved for LRRB funding (Motion by Tim Stahl, 2nd by Lyndon Robjent)
N/A	Brian Brashaw	Advanced Timber Bridge Inspection for NBIS	976	\$5,794	Additional amount approved by LRRB (Motion by Julie Skallman, 2nd Tim Stahl)
392A	Janet Creaser (U of M)	Examining signing options for improving safe driving behaviors in work zones	978	\$49,434	\$98,867 requested, Approved for 50/50 LRRB/TRIG Funding (Motion by Laurie McGinnis, 2nd by Steve Koehler)
				<b>\$810,878</b>	<b>Total funded by LRRB</b>

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Not approved for LRRB funding					
380	John Hourdos (U of M)	Assessing the Impact of Pedestrian Activated Crossing Systems	N/A		\$153,962 requested. Not approved for LRRB funding. Approved for funding by MnDOT TRIG
390	Lawrence Zanko (UMD)	Using Mobile Microwave Technology Concurrent with HMA Paving to Extend Longitudinal Joint Life			Not Approved for Funding
397	Tom Wood (MnDOT)	Alternatives to Seal Coats			Not Approved for Funding. Rescope as LRRB TRS project leading to updating the Seal Coat Manual.
400	Charles Jahren (ISU)	Options and Guidance When Using Base Stabilization Additives			Not Approved for Funding at this time. To RIC for revision and bring back to LRRB.
393	Halil Ceylan (ISU)	Installation of Insulation Over Centerline Culverts			Not Approved for Funding at this time. Send to champion Greg Isakson and bring back to March LRRB meeting for re-consideration.
395	Chen-Fu Liao (U of M)	Using Performance Measures to Assess the Impact of Freight Operation on Regional Freight Corridors			Not Approved for Funding. CTS will revise need statement for FY2017 solicitation.
KB10	John Gulliver (U of M)	Chloride Retention in Minnesota Soils			Not Approved for Funding
399	David Jeong (ISU)	PCC and HMA Evaluation Tool for Local Agencies			Not Approved for Funding (competing proposal was selected by LRRB).
401	Vern Schaefer (ISU)	Maintenance Solutions for Slope Failure			Not Approved for Funding (competing proposal was selected by LRRB).

**Action item 5: Add John Powell to the TAP for the project “The Transportation Futures Project: Planning for Technology Change.”**

**Action item 6: Joel Uring and Guy Kohlhofer will develop the scope of work for an RIC consultant proposal to meet the need for base stabilization information as set forth in NS 400 and bring the proposal back to LRRB for funding consideration.**

**Action item 7: Linda Taylor will contact Iowa DOT regarding co-funding for the Brian Brashaw proposal on NS 379 “Cost-competitive Timber Bridge Designs for Long Term Performance” especially for FY2017 tasks.**

**Action item 8: Re-scope the proposal on Alternatives to Seal Coats (NS 397) as a TRS project leading to updating the Seal Coat Manual.**

**Action item 9: Take the NS 393 proposal from Halil Ceylan “Installation of Insulation Over Centerline Culverts” back to Greg Isakson for review, and revisit the funding question at the LRRB meeting March if the proposal meets his need. If it does not meet his stated need, redraft the need statement or the proposal as seems advisable.**



### **XIII. Round Robin**

- Chris Kufner asked about next steps in regard to how the technical advisory panels for new projects are determined.
- Linda Taylor explained assigning or selecting TAP members and next steps toward getting the new projects underway.
- Linda updated the Board on progress toward filling two vacancies at MnDOT Research Services for a senior engineer to support LRRB, and a contract specialist in the finance unit.
- Debbie Sinclair updated the Board on the remaining finances after projects selected today. There is \$271,000 remaining in FY2016 and approximately \$900,000 in FY2017, available for other projects. Those amounts will be larger if MnDOT TRIG agrees to fund any of the projects at 50%.
- Laurie McGinnis reminded TRB attendees to please attend the CTS reception Sunday night at the Marriott Marquis.
- Julie Skallman bid a fond farewell to the Board, and said LRRB was her favorite part of her job as State Aid Engineer. She will miss traveling to TRB and other conferences with the group.

### **XIV. Adjournment**

The meeting was adjourned at 1:55PM by the Chair, Bruce Hasbargen.

## **Summary of LRRB Actions December 3-4, 2014**

**September Action Item #15:** *Nick Busse and Julie Skallman will look at the archive of past LRRB and RIC products, such as VHS videotapes, and decide which ones to keep or toss. The keep-or-toss review of archived past LRRB and RIC products, such as VHS videotapes, is still in progress. Carried over: Nick Busse will take the lead and bring any questions to the LRRB Outreach committee.*

**Action item 1:** Let Debbie Sinclair know about interest in attending any conferences.

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