



LRRB Project Selection Meeting
December 4 & 5, 2013
University of Minnesota
Coffman Memorial Union
300 University Ave, SE
Minneapolis, Minnesota 55455

MINUTES

LRRB Members Present:

Rick West (Chair), Otter Tail County
Bruce Hasbargen, Beltrami County
Lyndon Robjent, Carver County
Tim Stahl, Jackson County
John Powell, City of Savage
Steve Koehler, City of New Ulm
Laurie McGinnis, U of M - CTS
Julie Skallman, MnDOT - State Aid
Linda Taylor, MnDOT - Research Services
Tom Ravn, MnDOT - OCIC
Kaye Bieniek, Olmsted Cty. (new member)

Others Present:

Tina Folch, MnDOT - Research Services
Bruce Holdhusen, MnDOT - Research Services
Hafiz Munir, MnDOT - Research Services
Maureen Jensen, MnDOT – OMRR
Jim Grothaus, U of M – CTS
Alan Rindels, MnDOT - Research Services
Farideh Amiri, MnDOT - Research Services

I. Day 1 (December 4) Call To Order at 8:30 a.m. - Rick West

Introductions: Kaye Bieniek from Olmsted County is the new LRRB member starting January 1, 2014; Jim Grothaus is filling a staff support role for CTS since Jan Lucke took a job at Washington County.

Action Item #1: Research Services will update the LRRB roster and post on LRRB web site.

The agenda was approved, with the addition of an item on focus groups in spring 2014 to develop research needs, and an item on breakfast with Sen. Al Franken while in Washington for TRB meeting. (Motion by John Powell, second by Steve Koehler.)

The minutes of the October 30, 2013 meeting were approved. (Motion by Julie Skallman, second by Bruce Hasbargen.)

Pending action items from previous meetings - Linda Taylor

Discussion of any action items not otherwise on the agenda:

September Action Item #8:

(Tim Stahl will discuss PSAs, when and where the PSAs are going to be used, and report back to LRRB.): PSAs will be discussed at the LRRB Research Implementation Committee (RIC) meeting December 18. Action item closed.

September Action Item #9:

(Julie Skallman will discuss Pavement Resource Centers and the next steps with the State Aid Pavement Engineer and report back to the board): Rick asked for clarification; Julie said Joel will have individual informal discussions with each member during TRB. – Action item closed.

September Action Item #11:

(The Office of Materials will conduct a short survey through State Aid about RAP and share the results with the Board): **Maureen reported progress has been made, but it is not yet complete – hold over.**

October Action Item #3:

(Bruce Hasbargen will request approval from his board to attend the Transport Research Arena (TRA2014) conference in Paris in April.) Bruce has not received approval yet, and is doubtful if he will be attending the conference. Action item closed.

October Action Item #4:

(Tina Folch will determine if the Conference on Bearing Capacity of Roads, Railways and Airfields will take place in 2014. If so, she will also determine the date and location.) This conference takes place every 4 years; next in 2017. Action item closed.

Recognition of Rick West's contributions to LRRB and RIC

- Julie Skallman presented a plaque to outgoing Chair Rick West in recognition and appreciation of contributions over a period of 7 years as a member and chair of both the LRRB and RIC.
- Rick said that he started in September, 2006, and that it has been an honor and a great experience. He appreciates the wisdom and friendships of the people he has served with, and would recommend it to others who may consider serving on the LRRB or RIC.

II. Budget and Administration - Tina Folch

Tina reviewed the LRRB budget spreadsheet that was included in the meeting materials. The entries are color coded for reference:

- Green – completed
- Yellow – approved but not under contract
- White – ongoing

The amount currently uncommitted for FY 2015 is \$1,005,091, which includes the uncommitted balance carry-forward of \$422,246 from FY 2014. \$1,005,091 is the amount available for new research projects, assuming the LRRB appropriation and amounts for admin and program items will be the same in FY 2015 as they were in FY 2014.

Amendment Request – INV955 “Deployment of Portable WIM Systems at ATR Sites for Data Collection and Comparative Study”:

PI Taek Kwan is requesting an amendment to MnDOT Contract 99008 w.o.17 in the amount of \$22,800 for replacement of equipment that suffered damage in the field due to vandalism or wear and tear.

Motion to approve the requested \$22,800 for INV955 by Steve Koehler, second by Tim Stahl:

- Motion amended by Julie to have U of M and MnDOT follow up on any possible reimbursement through insurance policies
- Motion amended by Laurie to clarify who (U of M or MnDOT) actually owns the equipment in the field.

- Motion carried.

III. Additional Agenda Items

Focus Groups for developing research needs – Linda Taylor

The focus groups are planned for spring to meet with practitioners and develop ideas and research need statements. According to the overall plan, the focus groups alternate yearly between Metro and Greater Minnesota, and the Greater Minnesota meetings should rotate to different regions of the State. Last spring (2013) was a Metro focus; 2012 was in the north/west area of the State. CTS has a task under contract to facilitate the 2014 focus groups and report the results.

The Board has the opportunity to determine the location for 2014 focus groups, and Linda proposed City of Rochester and/or Olmsted County, which aligns with the Board's plan to rotate to different areas of the State.

The proposed location is acceptable to the Board. Kaye Bieniek will assist CTS and Research Services with finding the date and location in Rochester or other Olmsted County location.

Action Item # 2: (Linda Taylor) Coordinate with Kaye Bieniek to determine the date and location for 2014 focus groups in Olmsted County, and send out invitations to city and county engineers in the region.

Breakfast with Sen. Al Franken during TRB meeting – Tim Stahl

Tim circulated a web page about weekly breakfast at Al Franken's office in Washington, DC. Linda will register those who express interest, and the group will meet Wednesday, January 15, at 7:30 a.m. in the Omni Hotel lobby to take the Metro.

Other items:

- Bruce Hasbargen provided a review of his observations from the Low Volume Road Symposium in Australia in November, 2013.
- Tina asked about providing a State airplane for the trip to Bemidji for the summer meeting.
- Laurie and Lyndon expressed interest in traveling on the plane.

IV. Research Proposals for FY 2015 Funding

Presentations by Principal Investigators

9:45	KB13	Stakeholder Attitudes, Knowledge and Engagement in Local Road Systems Planning Decision-Making	Guillermo Narvaez
10:10	346	Evaluation of Safety and Mobility of Two-Lane Roundabouts	John Hourdos
10:35	342	Traffic Impacts of Bicycle Facilities	Greg Lindsey and John Hourdos
11:00	334	Examination of Driver Performance with In-vehicle Signing of Dynamic Road Information	Janet Creaser
11:25	KB01	Examination of Driver Performance and Distraction with In-vehicle Signing	Janet Creaser
12:30	349-C	Optimal RAP Content for Minnesota Gravel Roads #1	Jim Wilde (via teleconference)
12:55	331-B	PCC Pavement Thickness Variation Versus Observed Pavement Distress	Kyle Hoegh for Lev Khazanovich
1:20	KB10	Study of De-icing Salt Accumulation and Transport Through a Watershed	William Herb and Heinz Stefan
1:45	344-A	Prevention of Stripping Under Chip Seals	Xianming Shi (via teleconference)
2:25	350-A	Full Depth Reclamation (FDR) for Urban and Suburban Street Application #1	Xianming Shi (via teleconference)
2:50	350-B	Full Depth Reclamation (FDR) for Urban and Suburban Street Application #2	Mihai Marasteanu

Preliminary Discussion (see Dec. 5 discussion for funding decisions)

- Bruce Hasbargen inquired to know which proposals would be heard by MnDOT for funding at their meeting on December 10.
 - Four proposals will be heard by both groups; those proposals were:
 - 334: Examination of Driver Performance with In-vehicle Signing of Dynamic Road Information – Janet Creaser
 - 331-B: PCC Pavement Thickness Variation Versus Observed Pavement Distress – Lev Khazanovich
 - 333-C: Bio-Fog Seal Evaluation (OMRR portion) – Ed Johnson
 - 333-B: Bio-Fog Seal Evaluation (U of M portion) – Mihai Marasteanu
- NS-346 (Evaluation of Safety and Mobility of Two-Lane Roundabouts – John Hourdos): Perhaps additional task recommendations; consider including new Carver County roundabout at TH-101 & TH-61 in this study; may want to expand scope to evaluate different signing and striping techniques for comparative study at this location.
- KB-13 (Stakeholder Attitudes, Knowledge and Engagement in Local Road Systems Planning Decision-Making – Guillermo Narvaez): Requirement: add cities to the project equal to the number of counties; give the PI an opportunity to revise the work plan and project cost; further board approval not required up to Linda's approval authority of \$15,000.
- NS-342 (Traffic Impacts of Bicycle Facilities – Greg Lindsey): Julie thinks we need this. Rick liked the focus on rehab projects within the existing pavement width. Laurie noted they plan to study higher-speed roads. John asked for a deeper/narrower scope and

clearer outcomes; they should be provided in a form that will be useful for decision making. TAP- add Julie, John & Hennepin County representative.

- KB-01 and NS-334 (Examination of Driver Performance with In-vehicle Signing of Dynamic Road Information *and* Examination of Driver Performance and Distraction with In-vehicle Signing – Janet Creaser): Lyndon, Tom, Steve, Julie, and Rick are all supportive.
- NS-349 (Optimal RAP Content for Minnesota Gravel Roads #1 – Jim Wilde): Rick – the real question is whether RAP will improve performance when you don't have good gravel on the surface. Tim – RAP not allowed in Jackson County in wearing course, only in base. Rick – Ottertail County probably going back to that requirement as well.
- NS-331 (PCC Pavement Thickness Variation Versus Observed Pavement Distress – Lev Khazanovich): Consensus is to let MnDOT fund this one.
- KB-10 (Study of De-icing Salt Accumulation and Transport Through a Watershed – William Herb): Bigger issue in Metro than rest of State; scope seems to promise too much; responsibility to be proactive on this issue and for future county engineers, letter of support from Wayne Sandberg. Suggestion they study a small watershed to get useful results.
- NS-344 (Prevention of Stripping Under Chip Seals – Xianming Shi): PI should talk with Klay Eckles at Woodbury. Steve is “not sold” on the proposal but would be willing to be on the TAP.
- NS-350 (Full Depth Reclamation (FDR) for Urban and Suburban Street Application – Mihai Marasteanu or Xianming Shi): Consensus is the U of M proposal is preferred.

V. Adjournment

The meeting was adjourned for the day by Rick West at 4:00 P.M.

VI. Day 2 (December 5) Call To Order at 8:30 a.m. - Rick West

VII. Research Proposals for FY 2015 Funding

Presentations by Principal Investigators

8:30	347	Modernizing Road Construction Plans and Documentation	Yelda Turkan
8:55	352-B	Barriers to Right-of-Way Acquisition & Recommendations for Change	H. David Jeong
9:20	348	Alternate Design Methods to Renew Lightly Traveled Paved Roads	Charles Jahren
9:45	349-B	Optimal RAP Content for Minnesota Gravel Roads #2	Charles Jahren
10:25	333	Bio-Fog Seal Evaluation (OMRR portion)	Ed Johnson
10:45	333	Bio-Fog Seal Evaluation (U of M portion)	Mihai Marasteanu
11:05	(no NS#)	Minnesota Local Agency Pavement Marking: Mining Existing Data	Neil Hawkins

Discussion (see attached summary table for list of approved projects)

- Julie clarified that the LRRB appropriation may be slightly greater than estimated in Tina's budget projection, but it needs to be looked at more closely before adjusting the number.
- NS-347 (Modernizing Road Construction Plans and Documentation – Yelda Turkan)

- Add bridge design consultants to the survey audience
- TAP needs to define what is important to Minnesota stakeholders and refine the scope (is it more focused on 3D plans, paperless plans, reducing number of plan sheets, find out what contractors actually use for construction especially for machine-controlled grading, what does owner need to administer construction, potential conflict between plan quantities and DTM/TIN files provided to contractor, incorporate AASHTO guidance on order of precedence between CAD files / 3D models / plan sheets, MnDOT OTSM project to streamline plan sets)
- **Yes, NS-347 (Turkan) approved for funding (motion Julie, second John)**
- Lyndon Robjent will be TL for this project

- NS-352-B (Barriers to Right-of-Way Acquisition and Recommendations for Change – H. David Jeong)
 - Support from Rick and Bruce.
 - **Yes, NS-352-B (Jeong) approved for funding (motion John, second Steve)**

- NS-348 (Alternate Design Methods to Renew Lightly Traveled Paved Roads - Charles Jahren)
 - Support from Tim and Julie
 - **Yes, NS-348 (Jahren) approved for funding (motion Tim, second John)**
 - Tim Stahl will be the TL for this project

- NS-349-B (Optimal RAP Content for Minnesota Gravel Roads Charles Jahren or Jim Wilde)
 - Tom liked Jahren proposal because it screens first for economic feasibility before any field trials, and more field work in the scope
 - Bruce also like Jahren proposal because less technical and more results-focused
 - Tim questioned whether higher level of lab details in Marasteanu proposal is needed; he scored Jahren proposal higher
 - Rick and John preferred Jahren proposal over Marasteanu
 - **Yes, fund Jahren proposal for NS-349-B / Optimal RAP Content (motion John, second Tom)**

- NS-333-B and 333-C (Bio-Fog Seal Evaluation – OMRR portion, Ed Johnson, and U of M portion, Mihai Marasteanu)
 - Bruce would like to fund both proposals; he volunteered to be TL and recommended a combined TAP for both contracts
 - Julie would like to see some environmental testing either by OMRR lab or a commercial lab; pre-approve additional cost of such testing up to \$10,000
 - Rick would like to see field evaluation for 5 years as proposed by OMRR, or as long as possible
 - Laurie – this will also be heard by TRIG
 - John – move forward regardless of TRIG decision
 - **Yes, NS-333 approved for funding for both proposals as a coordinated project (motion John, second Bruce); propose 50% cost share with MnDOT, LRRB will fund 100% if necessary, pre-approve up to \$10,000 for environmental chemical analysis.**
 - Bruce Hasbargen will be the TL for this project

- No NS (Minnesota Local Agency Pavement Marking: Mining Existing Data – Neil Hawkins)

- Lyndon supported it; there is a need for guidance for locals on low-volume roads
 - Alan Rindels commented this will use data from an NTPEP pavement marking test deck on I-35E near Hugo, MN
 - Maureen Jensen commented NTPEP is an AASHTO program with regional test locations, MN is the “wet/freeze” location. Data collection is ongoing so this will be a snapshot. This proposal is not duplicating efforts and will help because the NTPEP web site is not user-friendly.
 - **Yes, Hawkins/Smadi proposal approved for funding (motion Bruce, second Rick).**
- TRS proposal on topic of Alternatives to Seal Coating – Matt Oman
 - **Motion by Bruce, second by Julie, to not fund this proposal at this time and defer it to a future time when the possible Pavement Resource Center has been determined.**
 - **Motion carried.**
- Funds requested by Julie for additional YouTube videos on topics to be determined
 - \$100,000 requested for consultant contract(s)
 - There is a prioritized list of ideas on paper to choose from
 - **Yes, fund \$100,000 for videos (motion John, second Bruce)**
- NS-346 (Evaluation of Safety and Mobility of Two-Lane Roundabouts – John Hourdos)
 - **Yes, NS-346 (Hourdos) funded (motion Julie, second Steve)**
 - May need to come back to board for additional funding, if needed, to do test striping/signing on new RB at TH-101 and TH-61
 - TAP should include Paul Stine, Jim Rosenow, Traffic person
- KB-13 (Stakeholder Attitudes, Knowledge and Engagement in Local Road Systems Planning Decision-Making – Guillermo Narvaez)
 - **Motion to fund KB-13 (Narvaez) by John, second by Tim**
 - ***Tim – amend to require inclusion of an equal number of cities and counties***
 - ***Rick – amend to ask for revised proposal***
 - ***Linda – Clarify not necessary to bring back to board meeting, revised proposal can be approved via email***
 - **Motion carried as amended.**
- NS-342 (Traffic Impacts of Bicycle Facilities – Greg Lindsey)
 - Rick is in favor, sees applications to very rural roads where need to work within existing pavement width, issue will only increase with as time goes on
 - **Yes, NS-342 (Lindsey) funded (motion Julie, second Rick).**
 - John and Julie want more information about the outcomes that will be reported, need quantitative information on how traffic is impacted, that can be used in planning and design
- KB-01 and NS-334 (Examination of Driver Performance with In-vehicle Signing of Dynamic Road Information and Examination of Driver Performance and Distraction with In-vehicle Signing – Janet Creaser)
 - **Motion by Tim, second by Bruce, to fund 1/3 of NS-334 if TRIG will fund 2/3; and to fund 100% of KB01 proposal; if TRIG does not fund 2/3, LRRB will fund only KB01.**
 - **Motion carried (conditional upon TRIG action).**
- NS-349-C (Optimal RAP Content for Minnesota Gravel Roads #1 – Jim Wilde)
 - Not funded because Jahren proposal on this topic was funded.

- NS-331-B (PCC Pavement Thickness Variation Versus Observed Pavement Distress – Lev Khazanovich)
 - **Motion carried to not fund 331-B (motion Bruce, second Lyndon).**
- KB-10 (Study of De-icing Salt Accumulation and Transport Through a Watershed – William Herb)
 - **Yes, KB-10 (Herb) funded (motion John, second Rick)**
 - Dissenting – Lyndon
- NS-344-A (Prevention of Stripping Under Chip Seals – Xianming Shi)
 - Maureen commented it is too similar to what was done previously
 - Rick – cost seems too small for the proposed scope
 - Bruce – seems to accept and build on theory that air voids are the cause, but Woodbury does not believe this is the case
 - **Motion carried to have Klay Eckles of Woodbury review the proposal on NS-344-A (Shi) to see if it meets his needs, bring it back for LRRB consideration at March meeting if he approves (motion Julie, second Bruce).**
- NS-350-B (Full Depth Reclamation (FDR) for Urban and Suburban Street Application – Mihai Marasteanu or Xianming Shi)
 - **Motion carried to fund NS-350-B (Marasteanu) proposal on this topic (motion Tim, second John).**

VIII. Closing remarks

- Laurie announced U of M was successful in winning the Regional UTC designation. The UTC needs non-federal matching funds.
- Tina – after today's Board funding decisions, there is a remaining budget of approximately \$163,000 for FY 2015.
- Laurie – U of M reception at TRB meeting, Sunday evening at Stone's Throw restaurant.

IX. Adjournment

The meeting was adjourned by Rick West (motion Steve, second Bruce).

Action Items Summary

Action items carried forward from previous meetings:

September Action Item #8:

(Tim Stahl will discuss PSAs, when and where the PSAs are going to be used, and report back to LRRB.): PSAs will be discussed at the LRRB Research Implementation Committee (RIC) meeting December 18. Action item closed.

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(Tina Folch will determine if the Conference on Bearing Capacity of Roads, Railways and Airfields will take place in 2014. If so, she will also determine the date and location.) This conference takes place every 4 years; next in 2017. Action item closed.

New action items:

Action Item #1:

Research Services will update the LRRB roster and post on LRRB web site.

Action Item # 2:

(Linda Taylor) Coordinate with Kaye Bieniek to determine the date and location for 2014 focus groups in Olmsted County, and send out invitations to city and county engineers in the region.

LRRB Final Approved Projects 12/05/2013

	Project Title	PI	Proposed Cost	Notes
346	Evaluation of Safety and Mobility of Two-Lane Roundabouts	Hourdos, John	\$124,920	Perhaps additional task recommendations consider new Carver County roundabout at 101 & 61 to study; may want to expand scope to evaluate different signing and striping techniques at this location
KB13	Stakeholder Attitudes, Knowledge and Engagement in Local Road Systems Planning Decision-Making	Narvaez, Guillermo	\$139,793	Requirement: 1) add equal amount of cities to the project; 2) revised workplan, added cost may be approved
342	Traffic Impacts of Bicycle Facilities	Lindsey, Greg	\$138,914	TAP- add Julie, John & Hennepin County representative
KB01	Examination of Driver Performance and Distraction with In-vehicle Signing	Creaser, Janet	\$29,365	This project could be tagged on to #334 into one contract.
334	Examination of Driver Performance with In-vehicle Signing of Dynamic Road Information	Creaser, Janet	\$170,616*	*Conditional approval: Fund 1/3 if MnDOT will fund 2/3; no funding if MnDOT does not fund 2/3 *(Note: MnDOT did not fund this proposal)
KB10	Study of De-icing Salt Accumulation and Transport Through a Watershed	Herb, William	\$119,339	
344-A	Prevention of Stripping Under Chip Seals	Shi, Xianming	\$70,451	Hold until March meeting after discussing with Woodbury to verify scope meets their needs.
350-B	Full Depth Reclamation (FDR) for Urban and Suburban Street Application	Marasteanu, Mihai	\$93,969	
347	Modernizing Road Construction Plans and Documentation	Turkan, Yelda	\$146,022	TAP- Wes Liepold, Chris Roy + Contractors
352-B	Barriers to Right-of-Way Acquisition and Recommendations for Change	Jeong, H. David	\$133,895	TAP - Lyndon
348	Alternate Design Methods to Renew Lightly Traveled Paved Roads	Jahren, Charles	\$64,131	
349-B	Optimal RAP Content for Minnesota Gravel Roads	Jahren, Charles	\$92,538	
333-C	Bio-Fog Seal Evaluation	Johnson, Ed	\$40,000	50% TRIG/50% LRRB One TAP both projects TAP - Bruce
333-B	Bio-Fog Seal Evaluation	Marasteanu, Mihai	\$93,469	50% TRIG/50% LRRB
			Up to \$10,000	Possibly add additional scope for environmental testing by OMRR or commercial lab
--	Minnesota Local Agency Pavement Marking: Mining Existing Data	Smadi, Omar	\$65,000	
--	YouTube Videos		\$100,000	

Estimated total:**\$1,461,806**

331-B	PCC Pavement Thickness Variation Versus Observed Pavement Distress	Khazanovich, Lev	\$110,000	Voted not to support
349-C	Optimal RAP Content for Minnesota Gravel Roads	Wilde, W. James	\$89,346	voted to support 349-B
350-A	Full Depth Reclamation (FDR) for Urban and Suburban Street Application	Shi, Xianming	\$64,046	Voted not to support at all.
--	Alternatives to Seal Coat Methods TRS	Oman, Matt	\$29,800	voted not to fund at all