

MEMORANDUM

To: RRC Members
Debbie Alke, Administrator/Aeronautics Division
D. John Blacker, Deputy Director
Mike Bousliman, Operations Manager
Monte N. Brown, Operations Manager/Business Process Solutions Unit
Jeffery M. Ebert, P.E./District Administrator-Butte
Larry Flynn, Administrator/Administration Division
Jennifer Jensen, Operations Manager
Dwane Kailey, Operations Manager
Jim Lynch, Director
Bob Seliskar/FHWA
Dennis Sheehy, Administrator/Motor Carrier Services Division
Jerry Stephens, P.E./WTI MSU
Jon Swartz, Administrator/Maintenance Division
Lynn Zanto, Administrator/Rail, Transit, and Planning Division

From: Susan C. Sillick, Manager
Research Programs

Date: February 11, 2010

Subject: 12/7/2009 RRC Meeting Notes (9:00 a.m. MDTCNF Commission Room)

RRC Members Present: Debbie Alke, John Blacker, Mike Bousliman, Monte Brown, Jeff Ebert, Larry Flynn, Jennifer Jensen, Dwane Kailey, Bob Seliskar, Sue Sillick, Jerry Stephens, Jon Swartz, and Lynn Zanto.

Others Present: Craig Abernathy, Pat Basting, Kris Christensen, Eli Cuelho, Hal Fossum, Marcel Huisjer/WTI, Jeff Jackson, Steve Jenkins/LTAP, Doug McBroom, Pat McGowen/WTI, Bob Turner, and Bob Weber.

1. **Budget Report:** Attached

Sue will meet with John Blacker regarding the effect of the Automated Crash Notification earmark on the research budget.

2. **Research Project – current listing:** Attached

No comments.

3. **Reports:** Available Upon Request

- a. **2009 Summer Transportation Institute - FHWA/MT-09-007/6439-901- Final Report**

- b. **Automatic Crash Notification-** Progress Report- July 2009
- c. **Bozeman Pass Wildlife Monitoring** – Progress Reports – June, July, August, September, and October 2009
- d. **Disparity/Availability Study** – FHWA/MT-09-004/8190 – Final Report
- e. **Field Investigation of Geosynthetics used for Subgrade Stabilization** – FHWA/MT-09-003/8193 - Final Report
- f. **Interim Evaluation of Three Instrumented Bridges in Saco, MT (09.017)** - Progress Report- September 2009
- g. **Keep Encouraging Young Drive Safety (KEYS) Pilot Study: Increasing Parental Involvement in Teenage Driving Through Driver Education (08.015)** – Progress Report – July 2009
- h. **LTAP** - Progress Reports - June and September 2009
- i. **Measurement and Evaluation of Subgrade Soil Parameters: Phase 1 - Synthesis of Literature** – FHWA/MT-09-006/8199 - Final Report
- j. **Montana Rest Area Usage (09.003)** - Progress Report- October 2009
- k. **Montana US 93 South Wildlife Crossings Research (04.016)** – Progress Report – July 2009
- l. **Smart Transportation and Land Use Planning (07.014)** – Progress Reports – June, July, August, and September 2009, and Technical Memorandums #2 and #3
- m. **Steel Pipe Pile/Concrete Pile Cap Bridge Support Systems: Confirmation of Connection Performance (08.012)** – Progress Report – October 2009
- n. **Steep Cut Slope Composting: Field Trials and Evaluation (05.010)** – Post Construction and Progress Reports - June 2009
- o. **Synthesis of Warm Mix Asphalt Paving Strategies for Use in Montana Highway Construction (09.014)** – FHWA/MT-09-009/8117-38 - Final Report

Jennifer questioned whether the Disparity Study report was finalized. Sue responded that it was; however, issues regarding this report were raised after it was finalized. These issues will require some changes to the report.

4. **Contract Extensions:** None

5. **Proposals:**

- a. **Continued Advancements in Load and Resistance Factor Design (LRFD) for Foundations, Substructures, and Other Geotechnical Features** – Pooled-fund study

Jeff Jackson presented this pooled-fund project and requested \$20,000/year in funding for this 18 month project.

Recently, AASHTO has required use of LRFD methods for some geotechnical engineering analyses. The LRFD method appears to be equivalent to the current Allowable Stress Design (ASD) method for large projects where pile load testing can be performed. However, the LRFD method is overly conservative for smaller projects (most MDT projects) when the cost of substantial dynamic testing cannot be justified. This research will provide, update, and maintain web-based training

with guidance for state DOTs. In addition, this research will determine research needs on LRFD design methods for substructures and foundations.

Dwane moved to fund this project at the recommended amount. Mike seconded the motion. All RRC members present voted for the motion; the motion passed.

b. Feasibility of Reclaimed Asphalt Pavement (RAP) as Aggregate in Portland Cement Concrete Pavements (PCCP) (09.004)

Bob Weber presented this proposal for the technical panel, which recommends funding this project for \$103,892.

Preliminary research has demonstrated the feasibility of using RAP in PCCP; however, this research is limited and focused on short-term mechanical characteristics of the material, rather than long-term durability characteristics. This research will focus on further characterizing RAP in Portland cement concrete (including durability), a necessary step in validating its use in transportation applications.

Mike made the motion to fund this project at the requested level. Monte seconded the motion. All RRC members present voted in favor of the motion; the motion passed.

c. Montana Fuel Tax Refunds (09.005)

Bob Turner presented this proposal for the technical panel, which recommends funding this project for \$114,756.

This project will investigate Montana's motor fuel tax refund process to evaluate its current governing policies; the potential for errors, omissions, and evasions (EOE); and the possibility of moving from a paper system to an electronic tracking system. If this project is approved, WTI staff will require space at MDT to review the records; no data records will leave MDT. Also, all personal information will be protected by encryption.

Debbie requested jet fuel be included in this project. Pat McGowen/WTI will determine whether this change in scope will result in a cost change or not. If so, a request for contract amendment will be presented to the RRC at a future meeting.

Mike made the motion to fund this project at the requested level. Larry seconded the motion. All RRC members present voted for the motion, except John Blacker, who voted against the motion. The motion passed.

d. **US 93 Post-Construction Wildlife-Vehicle Collision and Wildlife Crossing Monitoring and Research**

Pat Basting presented this proposal for the technical panel, which recommends funding this project for \$500,000. It was noted that the MDT Management Team gave the technical panel guidance regarding scope of work and maximum funding level (\$500,000). Pat confirmed this guidance was reflected in the current proposal.

Pat noted a preconstruction evaluation was complete. This proposal includes post-construction evaluation with clear measures of effectiveness (MOE) for 4 years and a cost/benefit (C/B) analysis.

Dwane noted some structures have more than one function and perhaps this needs to be considered in the C/B analyses. Dwane requested further discussion on this issue.

John questioned whether this research is duplicating other efforts. It was noted that this site is unique with regards to scope, land use patterns, and evaluation methodologies.

Jeff made the motion to fund this project at the requested level. Dwane seconded the motion. All RRC members present voted in favor of the motion; the motion passed.

6. **Implementation/Technology Transfer:**

a. **Growing Smart in Transportation and Development: Tools for State and Local Decision Makers Presentation (07.014)**

Hal Fossum and Doug McBroom were present to discuss progress on a previously funded research project to develop a toolkit of resources and determine research gaps for local transportation and land use planning. The four focus areas of the toolkit are: development and extension of local street networks, local transportation system financing, assessment of development impacts on local and state roads, and directions for multimodal/transit development. The toolkit is in the form of a website. This website has been drafted and revised, and submitted to MDT for review and implementation. The consultant will conduct webinars early in 2010 to begin deployment and implementation of research results.

b. **LTAP Update**

Steve Jenkins was present to give an update on the Local Technical Assistance Program (LTAP). Steve distributed a handout documenting background on LTAP and progress from June 2009 through December 2009. Steve indicated he continually seeks input from city and county

staff. In addition, LTAP staff issued a needs assessment in June. About 150 individuals had already responded to this needs assessment; however, the LTAP staff will continue to collect input through spring 2010. The 2011 LTAP work plan will reflect input obtained through this needs assessment.

John told Steve that MDT needs to understand the message LTAP staff is giving to locals with regards to training.

Lynn indicated MDT could use help with pavement management systems for locals. Steve indicated LTAP staff worked with cities and counties to facilitate completing road inventories, using PASER. Nearly all counties have done so. Steve indicated he would like to work with Lynn and her staff to help the cities with road inventories as well. Jeff noted that Belgrade really needs an inventory and a pavement management system. Miles city needs help too. Mike asked if cities and counties can use MDT's pavement management system. Lynn said they looked into it and it doesn't work so well in an urban environment due to section lengths.

Dwane indicated gravel surfaces are an increasing challenge. He asked if there are opportunities for MDT to work with counties to help with gravel surfaces.

7. Department/Division Hot Topics – RRC Members Roundtable Discussion

No discussion.

cc: Craig Abernathy/Research Programs w/attachments
Kent M. Barnes, P.E./Bridge Bureau
Kevin Christensen/Highways and Engineering Division
Kris Christensen/Research Programs w/attachments
Tim Conway, P.E./Consultant Design Bureau
Lisa Durbin/Construction Administration-Bureau
Mike Dyrdaahl/Highways and Engineering Division
Paul R. Ferry, P.E./Highways Bureau
Paul Jagoda, P.E./Construction Engineering Bureau
Michael P. Johnson/District Administrator-Great Falls
Tom Martin, P.E./ Environmental Services Bureau
Ray Mengel/District Administrator-Glendive
Doug Moeller/District Administrator-Missoula
Suzy Price/Contract Plans Bureau
Timothy W. Reardon/Legal Services
Stefan Streeter, P.E. /District Administrator-Billings
Matt Strizich, P.E./Materials Bureau
James A. Walther, P.E./Highways and Engineering Division
Duane E. Williams, P.E./Traffic & Safety Bureau
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