

MEMORANDUM

To: RRC Members
Debbie Alke, Administrator/Aeronautics Division
Mike Bousliman, Administrator/Information Services Division
Jeffery M. Ebert, P.E./District Administrator-Butte
Larry Flynn, Administrator/Administration Division
Dwane Kailey, Administrator/Highways and Engineering Division
Tim Reardon, Director
Bob Seliskar/FHWA
Jerry Stephens, P.E./MSU
Jon Swartz, Administrator/Maintenance Division
Duane Williams, Administrator/Motor Carrier Services Division
Lynn Zanto, Administrator/Rail, Transit, and Planning Division

From: Susan C. Sillick, Manager
Research Programs

Date: September 10, 2012

Subject: 8/29/2012 RRC Meeting Notes

RRC members present: Debbie Alke, Mike Bousliman, Jeff Ebert, Dwane Kailey, Sue Sillick, Jerry Stephens, Jon Swartz, Duane Williams, and Lynn Zanto

Others present: Beth Bermel, Brandi Hamilton, Dan Hill, and Doug McBroom

1. **Budget Report:** Attached

Duane Williams asked whether in approving any projects on the agenda, the remaining state budget authority would be completely expended. Sue responded the projects on the agenda are included in the expenditure estimates under pending projects. It was also noted that since the Research budget rolls up to the Construction budget, there is enough state budget authority to cover available federal funds.

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

a. **Needs Study for Two Northern Montana Border Crossing Corridors (12-022)-** Approval of Scope of Work

Sue explained the SOW for this project is up for approval at today's RRC meeting. She also explained that since HDR conducted the first project on this topic in 2010, this follow-up project can be sole-sourced to HDR. To keep the project moving forward, a proposal has already been requested and received. The panel will complete the review and revision process, including any changes required by the RRC, and then the proposal

will be submitted to the RRC for funding approval at the next RRC meeting or through an e-mail ballot, whichever is most expedient.

Doug McBroom attended to present the SOW/proposal for the Technical Panel.

As previously mentioned, this proposed project is an extension of the 2010 study titled *Impacts of Increased Canadian Economic Development on Northern Montana Highways (ICED)*. This previous study concluded that further research of two potential ports should be examined for infrastructure needs in case port hours were expanded. This proposed study will assess two Montana highway corridors associated with the US ports of Wild Horse (north of Havre on Secondary 232) and Morgan (north of Malta on US 191).

It will assess future infrastructure needs by identifying economic growth and changes in industries related to wind development, oil, gas, pipeline construction, agriculture, and other freight-reliant growth industries in the region, as well as through-going freight. From this analysis, questions regarding the ports' hours of operation and infrastructure needs in Montana can be determined.

Lynn Zanto made a motion to approve the SOW. Dwane Kailey seconded the motion. All RRC members present voted in favor of the motion. The motion passed.

b. **Evaluating Transition Zones as 2 and 4 Lane Rural Highways Enter Communities (12-009)- Project Cancelled**

The Technical panel recommends this project be cancelled. Kris Christensen was present to discuss this project on behalf of the Technical Panel.

The technical panel does not think there are crash issues in this corridor and there is not a way to determine before and after treatments since the whole character and function of the corridor has changed with the reconstruct to a four-lane highway. Also, there are no planned four lane highways like the US 93 corridor. Finally, MDT will be doing its own speed zone studies in this area, and this project is not a priority.

The RRC agreed; the project is cancelled.

3. **Reports: Available Upon Request**

No discussion.

- a. **Assessing the Extent and Determinates of Induced Growth (10-0116)- Task 2 Report**
- b. **Automatic Crash Notification – July 2012 Progress Report**
- c. **Concrete Median Barrier Condition and Transition Plan – Final Report**
- d. **Determination of Material Properties and Deflection Behaviors for Contemporary Prestressed Beam Design (10-009) – July 2012 Progress Report**
- e. **Impact to Montana State Highways Due to Bakken Oil Development – Interim Report**

- f. **LTAP** – August 2012 Progress Report
- g. **Relative Operational Performance of Geosynthetics Used as Subgrade Stabilization** (10-008) – July 2012 Progress Report
- h. **US 93 S Wildlife Structure Monitoring** (04-016) – April 2012 Progress Report

4. **Proposals:** Attached

a. **2014 Asset Management Conference and Training on Implementation Strategies Pooled-Fund Study**

Dwane suggested MDT might want to participate in this pooled-fund study. The purpose of this pooled-fund study is to provide a venue for partner states to share ideas and experiences with respect to asset management with each other and experts in the field. Dwane suggested this conference maybe a little late with regards to the requirements of MAP-21. While the rest of the RRC agreed this may be the case, it was generally agreed this project will be helpful to MDT. Dwane also indicated ISD will need to be involved with regards to MDT management systems, software, and programming.

Dwane Kailey made a motion to participate in this pooled-fund study with a \$10,000 contribution. Duane Williams seconded the motion. All present voted in favor of the motion; the motion passed.

b. **The Impact of Wide-Base Tires on Pavement Damage: A National Study Pooled-Fund Study**

Dan Hill, as the current project technical contact for MDT, indicated MDT has already contributed \$100,000 (\$25,000/year for four years) to this pooled-fund study. When the project was initiated, there was \$700,000 pledged to this project from six states and the Rubber Manufacturer's Association. The RFP yielded one proposal for \$1,190,000. Knowing funding was not enough to complete the project, FHWA signed a contract with the consultant and initiated the project. FHWA agreed to contribute an additional \$383,000 to the project, leaving the project short by \$107,000. FHWA is now asking for an additional \$25,000 from each of the five remaining participating states.

The purpose of this project is to determine pavement damage caused by the "next generation" wide-based tires as compared to dual tires. Dan stated there are a large number of semi-trailer trucks on our roadways, with secondary pavements being of particular concern since they are relatively thin and could be susceptible to pavement damage caused by wide-based tires.

The RRC agrees the potential benefit from this research is high; however, they want to send a strong message to FHWA, as the lead for this pooled-fund study, regarding the lack of fiscal responsibility in contracting a project without having the funds to complete it.

Given the potential for the benefits of this research to MDT, Dwane Kailey made a motion to contribute an additional \$25,000 to this project. Mike Bousliman seconded the motion. All RRC members present voted for the motion; the motion passed.

c. North/West Passage Pooled-Fund Study

Brandi Hamilton was present to champion funding this pooled-fund study. In the past, MDT has contributed \$75,000 (\$25,000 each in FY 2008, 2010, and 2011). Brandi is requesting an additional \$50,000 (\$25,000 each in FY 2013 and 2014) to fund Phase 7 of this continuing pooled-fund study.

The North/West Passage Corridor, which includes the states along I-90 and I-94 from Wisconsin to Washington, is entering its ninth year as a pooled-fund project. The goals of this program are to implement and evaluate integrated traveler information systems and coordinate maintenance operations across state borders.

The Phase 7 work plan includes several projects that focus on continued development and expansion of integrated traveler information systems as well as investigate options to promote consistent application of the recently adopted federal rule regarding the real-time system management information program.

Brandi also stated there have been numerous benefits for Montana's participation in this pooled-fund , including, the development of the NWP Traveler information website, Corridor-Wide Consistent Event Descriptions to facilitate consistent messages, 511 system enhancements, and Clarus (integrated surface transportation weather observing, forecasting, and data management system).

Finally, Brandi mentioned MDT was successful in obtaining a Multistate Corridor and Operations Management (MCOM) Program grant. This grant is for \$614,609 over a two year period. Brandi's request for funding for two additional years corresponds with the life of the grant. She indicated, after this time frame, MDT should take a close look as to whether to continue funding this program.

Jon Swartz made a motion to fund this pooled-fund study for \$50,000 over a two-year period. Dwane Kailey seconded the motion. All RRC members present voted in favor of the motion; the motion passed.

d. Recycled Asphalt Pavement (RAP) in Portland Cement Concrete Pavement – Phase 2

Beth Bermel attended to support this proposal on behalf of the Technical Panel.

This is the second phase of this project. The first phase was a feasibility study and focused on the optimization and characterization of RAP mix designs suitable for transportation applications. As a part of the Phase 1 project, two mix designs were

developed. The mechanical properties and durability of these mixes were evaluated in the lab.

The proposed Phase 2 research includes further optimization development of the mix designs from Phase 1, including determining the effects of using water reducers to improve economy and the use of fibers in the mixes to increase their tensile strength, and reduce shrinkage. Long-term performance will be evaluated through a suite of physical property and durability tests. In parallel with this testing, two test slabs will be constructed with instrumentation to monitor conditions and performance. In moving forward with phase 2 now, we have an opportunity to realize cost savings as the test slab construction will occur in concert with construction for another project.

Dwane Kailey made the motion to approve \$64,172 in funding for this project. Jon Swartz seconded the motion. All RRC members present voted in favor of the motion; the motion passed.

5. Implementation/Technology Transfer: None

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

Jerry Stephens mentioned there is a new professor at Montana Tech. Her name is Yan Qi and her areas of research include planning, traffic, safety engineering, pavement management, and transit.

Dwane Kailey mentioned the MAP-21 requirement that SHRP 2 implementation be funded with SPR funds by a vote of AASHTO (75% approval is required). The recommendation is 5% off the top of SPR be used to fund SHRP 2 implementation; FHWA has agreed to fund 1.3% or about \$9.5 M. If 5% of SPR is approved, MDT's commitment would be about \$380,000 in both FFY 2013 and 2014. With all of the other MAP-21 requirements of Planning, Lynn feels this amount is too high. Dwane, Lynn, and Sue will convene to discuss a response to Tim.

cc: Craig Abernathy/Research Section
Audrey Allums/Transit Bureau
Kent M. Barnes, P.E./Bridge Bureau
Katy Callon/Research Section
Kevin Christensen/Highways and Engineering Division
Kris Christensen/Research Section
Tim Conway, P.E./Consultant Design Bureau
Chris Dorrington/Data and Statistics 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
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Doug McBroom/Multimodal Programs Bureau
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