

Conference Call Minutes
North Central Pavement Research Coordination Partnership (Frozen Four)
WisDOT Truax Building
June 15, 2007

Attendees:

Mike Eacker	MDOT (Call In)	Hussain Bahia	WHRP
Maureen Jensen	MNDOT (Call In)	Andrew Hanz	WHRP
Laura Fenley	WisDOT	Matt Mullins	CTC and Assoc.
Peg Lafky	WisDOT		

I. Discussion of Geotech Research Summary

- The following is a summary of general comments provided during the meeting:
 - Instrumentation and Testing is a specialized topic unique to MNRoad. Not many states have the facilities available to conduct extensive research on full scale instrumentation and testing.
 - Non-Destructive Testing would fit in under Track 10 (Surveying, Subsurface Investigation, and Geospatial Data Acquisition).
 - Research related to Intelligent Compaction would fit under Track 7 – Instrumentation and Testing.
- How will this document and the ones generated for asphalt and concrete be used?
 - Summary of research allows for identification of common interest areas and researchers working on the area in each state. The information could be used to develop a workshop in which the researchers come in to present general project results/challenge and participate in a discussion with the state representatives.

Action Items

- States will review document to verify research tracks and descriptions are accurate. States will also be given an opportunity to put their research efforts in the correct categories.
- Pooled funds that states are currently participating in will be added to the geotech, concrete, and asphalt summaries.
- The document will be used to generate topics for our research workshop at the next meeting in October.

II. Problem Statement Summary

- To provide accurate information the problem statement summary must be updated as problem statements turn into research projects.
- Michigan selects their top 10 problem statements and funds six.
- It was decided that a project should be moved from the problem statement summary when a research contract is signed, it should then considered in the appropriate road map analysis.
- It was discussed that the Problem Statement summary should be linked to current pooled fund opportunities and possibly ongoing AASHTO Regional Activities.

- A revised problem statement summary can be used to identify areas of interest and possible collaboration for an upcoming research project. The summary will also provide partner states with more ideas for research funding.

Action Items

- Partner states should review Problem Statement Summary and identify problem statements that have turned into in-progress research projects.

III. Review and Progress Update on Tasks from Last Meeting:

Andrew provided supplemental materials that he had prepared as some of the tasks defined after the March 28th meeting. The meaning of the materials was to summarize some of the discussions regarding possible areas of collaboration and get them on paper so contacts could be made to pursue some of these areas.

▪ **ME Design Inputs**

- Similar worksheets were created for ME Design Input Areas identified as areas of interest in the last Frozen Four meeting.

1. **Resilient Modulus (M_R):**

- All states have past and/or research in progress looking at the M_R of both subgrades and bases. There was interest from all states in pursuing collaboration in this area and using M_r as the theme of the first Frozen Four workshop.
- There are three main areas of concern:
 - Protocols
 - Testing Equipment: What are the consequences of having differences?
 - Can M_r be accurately estimated using basic material properties?
- FHWA Pooled Fund Solicitation: Improving M_r Test Procedures.

Action Items

- WHRP will work with states to develop a short list of past and current projects related to M_r and their PI. PI's will then be invited to workshop to discuss results and whether or not there are opportunities for collaboration.
- Partner states and PI's should review the scope of the pooled fund study and submit comments to sponsor.

2. **Other Inputs of Interest:**

- States were encouraged to complete the Coefficient of Thermal Expansion and HMA Dynamic Modulus worksheets. These topics may be the theme of future worksheets.

Action Items:

- WHRP will send out CTE and E^* worksheets for review and completion by partner states.

▪ **Sensitivity Analysis:**

Andrew reviewed reports/progress updates received from the Michigan and Wisconsin in terms of analysis approach and their identification of sensitive inputs. The following researchers have

been involved in past/current sensitivity analysis efforts. The summary was included in the meeting packet.

Action Items:

- The group as a whole decided not to actively pursue Sensitivity Analysis due to states' differing commitments in implementation of MEPDG.
- Andrew will send Dr. Buch the UW report for his review and comment.

- **ME Design Calibration:**

The database template used as part of a WisDOT research project for collection of pavement design and performance inputs was presented. States were asked if they had an interest in populating the database with 1 – 2 projects/year to develop a large data set for local calibration of MEPDG.

Action Items:

- The group as a whole decided not to actively pursue Calibration due to time requirements in populating the database and differing levels of commitment by states in implementation of MEPDG.

- **Summary of Common Areas of Interest**

Andrew presented a summary of the each states' activities in the areas of Common Interest defined in the 3/28 meeting. Each state should review/revise the list and identify specific areas they would like discussed in future meetings. Those participating in the conference call identified reflective cracking/pre-overlay repair/rubbilization and QC/QA of Unbound Materials as potential topics for next meeting.

Action Items:

- Discussion of state activities/specifications for QC/QA of unbound materials and reflective cracking/preoverlay repair/rubbilization will be included as potential agenda items for the next Frozen Four meeting.

- **WHRP FFY 2008 Projects**

The meeting packet also included a list of FFY 2008 WHRP Research projects. Final work plans for these projects are still in development. If states have any interest in being involved/providing comments for any work plan, they should contact Andrew.

IV. Plans and Potential Agenda for Next Meeting/Workshop

The following is a brief summary of the agenda items for the next meeting. It is anticipated that the meeting will be 1.5 days long.

- **M_R Workshop:** Invite Hani Titi (UWM), Shong Tao Dai (MNDot), and Gilbert Baladi (MSU)/Ralph Hodek (MTU). Following items for discussion:
 - Results of Research
 - Effect of using different protocols
 - Effect of using different testing equipment.
 - Is there opportunity to collaborate on future research?
 - Best practices for state agencies.

- Discussion of Interest Areas
 - Reflective Cracking/Pre-Overlay Repair/Rubblization
 - QC/QA of Unbound Materials

V. Long Term Direction of the Group/Frequency of Face to Face Meetings

- First main task was to set up databases of completed and in-progress research. That task has been completed.
- What's next?
 - Workshops – Use summaries prepared by CTC to identify common areas of interest for workshops. Each workshop would focus on one specific area. Hold one or two a year.
 - Small projects we can work on together (ie summarizing state of practice in each state)?

Action Items:

- CTC will prepare list of potential workshop areas.
- Andrew will work on scheduling the next Frozen Four meeting in MI for sometime in October.

VI. Next Meeting

The date of the next meeting is TBD, it will be held in Michigan. **Please give Andrew your availability October 8 – October 19.** The meeting will be scheduled based on everyone's availability; a more detailed list of tasks/preparation for the meeting will be distributed once the date of the meeting is set.