

State Planning and Research Program Quarterly Report

PROJECT TITLE: Understanding the Chemical and Mechanical Performance of Snow and Ice Control Agents on Porous or Permeable Pavements

OBJECTIVES: The objectives of this research are to identify the primary chemical and mechanical interactions that occur when deicers are applied to textured or porous pavements before, during and after a winter storm to determine optimal winter maintenance strategies and application rates for treating these types of pavements

PERIOD COVERED: January 28, 2013 – March 31, 2013

PARTICIPATING AGENCIES:

Western Transportation Institute, Montana State University – Bozeman

PROJECT MANAGER:

Tom Peters and Ashley Duran

SP&R PROJECT NO:

TPF-5(218)
MnDOT Contract No.99006

PROJECT IS:

Planning
 Research & Development

LEAD AGENCY:

Minnesota Department of Transportation

PRINCIPAL INVESTIGATOR:

Michelle Akin

PROJECT BUDGET:

\$185,000

PROJECT EXPENDITURES TO DATE:

\$2,231

WORK COMPLETED:

Task 0 – Project Management

- Kick-off teleconference held on February 5, 2013

Task 1 – Literature Search

- Identified relevant literature – focus on domestic research and DOT reports/manuals
- Drafted outline of literature search

Task 2 –List and Categorize Pavement and Overlay Types – no progress during this period

Task 3 – Interviews – no progress during this period

Task 4 – Lab Testing – no progress during this period

Task 5: Analyze Chemical and Mechanical Interactions – no progress during this period

Task 6: Synthesize Best Maintenance Practices – no progress during this period

Task 7: Recommend a Plan of Study – no progress during this period

Task 8: Reporting – no progress during this period

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Task 0 – Project Management

- Teleconference to discuss progress on Task 1 in April 2013
- Teleconference to discuss Task 1 and 2 findings in June or July 2013

Task 1 – Literature Search

- Compile and review additional relevant literature – including international sources
- Write literature review summary

Task 2 –List and Categorize Pavement and Overlay Types

- Compile a categorized list of pavement surfaces identified in Task 1 with a description of unique properties for each category

Task 3 – Interviews – no progress anticipated during this period

Task 4 – Lab Testing – no progress anticipated during this period

Task 5: Analyze Chemical and Mechanical Interactions – no progress anticipated during this period

Task 6: Synthesize Best Maintenance Practices – no progress anticipated during this period

Task 7: Recommend a Plan of Study – no progress anticipated during this period

Task 8: Reporting

- Write Progress Report 1
- Write and submit Task 1 Deliverable: Literature Search
- Write and submit Task 2 Deliverable: Categorized List of Porous/Permeable Pavements

STATUS:

The project is on budget and on schedule.