

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** *Snow Removal Performance Metrics*

**OBJECTIVES:** • The goal of this research is to “*identify effective performance metrics for snow and ice maintenance operations*”.

**PERIOD COVERED:**

July 1, 2016– September 30, 2016

**PARTICIPATING AGENCIES:**

Washington State University – Prime  
The Narwhal Group – Subcontractor  
Monte Vista Associates LLC - Subcontractor

**PROJECT MANAGER:** Tom Peters

**SP&R PROJECT NO:**  
MnDOT No. 06910

**PROJECT IS:**

**LEAD AGENCY:** Mn/DOT

Federal No. TPF-5(218)

Planning  
 Research & Development

**PRINCIPAL INVESTIGATOR:**

Xianming Shi, Ph.D., P.E.

**ANNUAL BUDGET:**

\$74,640

**PROJECT EXPENDITURES TO DATE:**

\$68,035

**WORK COMPLETED:**

*Project Management*

Project management activities during the quarter were focused on budget and timeline maintenance as well as management of subcontracts. A final teleconference call was conducted on July 8, 2016 to wrap up this project, in which the PI received suggestions from the project panel to revise the Task 3 deliverable and the draft project report.

Task 1. Literature review (100% completed)

Task 2. Survey (100% completed)

Task 3. Analysis and Matrix Development (100% completed)

A revised Task 3 deliverable was submitted on August 30, 2016, which addressed the review comments received from the project panel on its draft version.

Task 4. Recommendations (100% completed)

A revised project final report was submitted on September 15, 2016, which addressed the review comments received from the project panel on its draft version.

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

*Work in the coming quarter will consist of project management as well as the potential revision on the project final report (if any comments or suggestions are raised by the project panel again). Furthermore, since a manuscript was submitted to the TRB 2017 Annual Meeting based on the project final report, any review comments raised by the TRB Winter Maintenance Committee on the manuscript will also be incorporated to enhance the quality and usability of the project final report. This project will be completed in the next quarter.*

**STATUS AND COMPLETION DATE:**

On budget and on schedule since the no-cost time extension has been approved by the Minnesota DOT.