

RESEARCH PROGRESS REPORT FOR THE QUARTER ENDING: 1st

Wisconsin Department of Transportation
DT1241 2009

Research, Development and Technology Transfer	
Program: (Choose One) <input type="checkbox"/> Policy Research <input checked="" type="checkbox"/> Pooled Fund TPF # 5(092) Clear Roads <input type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Other	
Project Title: Development of a Toolkit for Cost-benefit Analysis of Specific Winter Maintenance Practices, Equipment and Operations	
Administrative Contact/Phone #: Colleen Bos/ (608) 577-4805	WisDOT Project ID(s): 0092-09-08
WisDOT Technical Contact/Phone #: Michael Sproul/ (608) 266-8680	Other Project ID: Clear Roads 08-02
Project Investigator/Phone # (agency & contact): Xianming Shi, PhD, PE, Western Transportation Institute (WTI) Montana State University (406) 994-6486	Approved Starting Date: 12/17/2008
WisDOT Comments:	Original End Date: 8/31/2010
	Current End Date: 8/31/2010
Sponsor: Wisconsin Department of Transportation	Number of Extensions: 0

Schedule Status:

- ☒ On schedule ☐ Ahead of schedule
☐ On revised schedule ☐ Behind schedule (Please explain below)

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$149,500.00	\$36,473.00	\$121,945.00	82%	82%

Project Description:

This project is the development of a toolkit that will provide winter maintenance managers a means by which to evaluate and justify expenditures on a variety of practices, equipment and operations. Specifically, this research aims to establish a practical toolkit that can be employed by maintenance managers not only to understand the expected costs and benefits of specific practices, equipment, or operations, and convey those expectations to decision-makers outside the maintenance community. The toolkit will include guidance related to the costs and benefits of practices, equipment, and operations, as well as provide a means to be expandable in the future to include additional winter maintenance elements as needed.

Progress This Quarter: (Includes project committee meetings, work plan status, contract status, significant progress, etc.)

Task 0. Project Management (82% completed)

This task involved periodic communications within the research team (e.g. weekly meetings) as well as between the research team and the sponsor

Task 1. Comprehensive Literature Review (97% completed)

The literature review of the costs, benefits and effectiveness of winter maintenance practices, equipment and operations was refined and edited during the quarter.

Task 2. Survey of Best Practices (95% completed)

The researchers provided Clear Roads with a list of data/information needs to distribute at the program meeting in late January. This list sought to obtain quantified information related to the benefits associated with the top ten items being included in the toolkit. To date, no information has been received from any Clear Roads state, so the research team has proceeded with the limited information they have available from literature. The toolkit can be modified as needed should quantified benefit information become available from any source prior to the end of the project.

Task 3. Tool and Methodology Development (72% completed)

The subcontractor has finalized work on the initial mock-up of the website, which was reviewed by Clear Roads members at the January meeting. No feedback was provided regarding changes to the look, feel and flow of the website, and so work has now moved on to coding its data input and calculation aspects. Once this is completed, internal testing will occur to ensure that calculations are being made correctly under different scenarios and that the website is functioning without any glitches.

Anticipated Work Next Quarter:

Work in the coming quarter will consist of three tracks. First, work will continue on the development of the website functions for the top-ten items. When this work has been completed, the project technical panel will be notified so that they may complete review and feedback for the website. Once feedback has been received, changes will be made to the website as needed. Second, user and report documentation for the toolkit will begin. In conducting this work, the researchers will coordinate with Clear Roads project management to identify sample users who could provide input data for demonstration purposes. Finally, development of training materials (ppt. presentation) for the Clear Roads August meeting will begin.

Circumstances Affecting Progress and/or Budget:

None at the present time.

Gantt Chart:

