

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Comprehensive Guide to Pre-Wetting Application Rates and Methods*

OBJECTIVES: This project aims to develop recommendations for pre-wetting rates and evaluate the difference between applying pre-wet in the chute vs. on the chain flight or in a mix chamber.

PERIOD COVERED: July 1 – September 30, 2023

PARTICIPATING AGENCIES: Minnesota Department of Transportation, Clear Roads Pooled Fund, Washington State University (Prime), Wilfrid A. Nixon and Associates, LLC (Subcontractor), Monte Vista Associates LLC (Subcontractor), and Roadtech, Inc. (Subcontractor).

PROJECT MANAGER:

Hafiz Munir / Tom Peters

SP&R PROJECT NO:

MnDOT Contract No.
1051125

PROJECT IS:

____ Planning
X Research & Development

LEAD AGENCY: MnDOT

Federal Project Number:
TPF-5(479)

PRINCIPAL INVESTIGATOR:

Xianming Shi, WSU

ANNUAL BUDGET: \$28,522 (FY23);
\$165,530 (FY24); \$5,923 (FY25)

PROJECT EXPENDITURES TO DATE: \$15,652

WORK COMPLETED:

The PI worked with the project TAC to hold the kickoff meeting online, on Feb. 24, 2023.

Task 1 (Literature Search): 100% complete. The draft literature review was submitted to the project TAC for review in June 2023 and the revised document was submitted in August 2023 and approved.

Task 2 (Survey): 100% complete. The final survey questionnaire was implemented in both PDF and in Qualtrics online and we secured a total of 30 valid responses from winter road maintenance professionals.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Project management activities.

Task 3 (Initial Synthesis): to complete.

Task 4 (Experimental Design): to complete.

STATUS AND COMPLETION DATE:

In October 2023, we will officially request a no-cost time extension and propose a new project end date of March 31, 2025. The revised timeline is as follows. This 6-month no-cost time extension is needed to cover the time lost in contracting and Task 1 (Literature Search) and about 3 months of delay in Task 2 (Survey).

Task	Current Task Start Date	Current End Date for Task Approval	Revised Task Start Date	Revised Due Date to Submit Draft Deliverables	Revised End Date for Task Approval
1	02/01/2023	04/30/2023	No change		
2	02/01/2023	05/31/2023	05/01/2023	10/31/2023	11/30/2023
3	03/01/2023	06/30/2023	06/01/2023	11/30/2023	12/31/2023
4	07/01/2023	08/31/2023	10/01/2023	12/31/2023	01/31/2024
5	07/01/2023	06/30/2024	01/01/2024	11/30/2024	12/31/2024
6	05/01/2024	07/31/2024	11/01/2024	01/31/2025	02/28/2025
7	07/01/2024	09/30/2024	11/01/2024	01/31/2025	03/31/2025