

State Planning and Research Program Quarterly Report

PROJECT TITLE: *Determining the Migration of Chloride-Based Deicers through Different Soil Types*

OBJECTIVES: This project aims to achieve a clear, quantitative picture about the physicochemical properties of various types of soils (texture-based, commonly used in the areas of interest) and migration behavior of selected deicers through these soil types.

PERIOD COVERED: January 1 – March 31, 2023

PARTICIPATING AGENCIES:

Washington State University – Prime
Roadtech, Inc. - Subcontractor

PROJECT MANAGER:

Hafiz Munir / Tom Peters

SP&R PROJECT NO:

MnDOT No. 1047792

PROJECT IS:

____ Planning
X Research & Development

LEAD AGENCY: MnDOT

Federal Project No.
TPF-5(353)

PRINCIPAL INVESTIGATOR:

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

ANNUAL BUDGET:

\$99,980

PROJECT EXPENDITURES TO DATE:

\$17,045

WORK COMPLETED:

Project Management

The PI submitted the quarterly progress report in Jan. 2023. In the last quarter, a 6-month no-cost time extension has been submitted by WSU to MnDOT for review.

Task 1. Literature Review and Survey (100% complete). The project team completed a draft Literature Review and submitted that to the Technical Advisory Committee and presented the findings from Task 1 via a ZOOM meeting in Oct. 2022. The revised Literature Review was submitted to the project TAC in Jan. 2023, and it was approved in March 2023.

Task 2. Developing the Testing Plan (90% complete). The project team submitted the draft testing plan to the project TAC in Feb. 2023 and received feedback in March 2023. The revised testing plan was submitted to the TAC again for approval in early April 2023.

SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:

Work in the coming quarter will consist of project management as well as the completion of Task 2 (Developing the Testing Plan) and the beginning of Task 3 (Execution of the Testing Plan).

STATUS AND COMPLETION DATE:

We had a delay in contract approval and then we experienced significant and unexpected delays in securing a sufficient number of survey responses in Task 1. As such, we are requesting a 6-month no-cost time extension to ensure that the research project will produce a quality product given a reasonable timeframe. The updated timeline is as follows and this no-cost time extension has been submitted by WSU to MnDOT for review.

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	06/01/2022	09/30/2022	06/01/2022	01/31/2023	03/31/2023
2	09/01/2022	12/31/2022	12/01/2022	01/31/2023	03/31/2023
3	01/01/2023	05/30/2023	04/01/2023	08/31/2023	10/31/2023
4	05/01/2023	08/31/2023	10/01/2023	11/30/2023	01/31/2024
5	06/01/2023	09/30/2023	09/01/2023	11/30/2023	01/31/2024
6	08/01/2023	11/30/2023	01/01/2024	03/31/2024	05/31/2024