

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** *Salt Shed Design Template*

**OBJECTIVES:** The purpose of this project is to develop three salt shed scalable designs that can be used as templates by agencies for a variety of sites. The designs will consider a number of factors including code adherence, incorporation of state and federal regulations associated with environmental and related concerns, pad design, material selection options, construction techniques, and easy design modification.

**PERIOD COVERED:** October 1 – December 31, 2023

**PARTICIPATING AGENCIES:** Minnesota Department of Transportation, Clear Roads Pooled Fund, and Wilfred A. Nixon and Associates, LLC.

**PROJECT MANAGER:**  
Hafiz Munir / Tom Peters

**LEAD AGENCY:** MnDOT

**PRINCIPAL INVESTIGATOR:**  
Wilfrid Nixon  
Wilf A. Nixon and Associates, LLC

**SP&R PROJECT NO:**  
MnDOT Contract No.  
1044530  
  
Federal Project Number:  
TPF-5(353)

**PROJECT IS:**  
  
 Planning  
 Research & Development

**ANNUAL BUDGET:** \$83,326

**PROJECT BUDGET:** \$124,989

**PROJECT EXPENDITURES TO DATE:** \$ 101,474

**WORK COMPLETED:**

- Task 1 – Literature Review: A final version has been prepared.
- Task 2 – Survey of Practice: The survey was conducted, and the information was collected into a report, and delivered in July 2022. A meeting was held to discuss this with the advisory committee.
- Task 3: Design Analysis and Recommendations: Using information from the literature review, the design analysis has been conducted. A report was submitted to the TAC and has been approved by them.
- Task 4: Scalable Design for Salt Storage Sheds: The three sets of scalable designs together with accompanying design documents have been submitted along with salt storage sizing spreadsheet and guide for use of the same.

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

- Task 4: The final version of the design guide will be completed and submitted.
- Task 5 – Final Report and Webinar: the final report comprises four parts – the salt storage sizing spreadsheet and guide, the annotated design drawings, the design guide (including Recommendations), based upon the results of task 3, and the final report of the research conducted itself, which will comprise material from tasks one, two and three, as well as a brief description of the other final deliverables. The first of these has already been submitted, the second and third will be completed and submitted in this quarter, and the fourth will be submitted by the end of the quarter. The webinar will be scheduled in accordance with the needs of the advisory panel. A contract extension has been requested at this time.

**STATUS AND COMPLETION DATE:**

As noted in prior QPRs a revised schedule has been approved. The schedule is:

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	1/5/2021	5/15/2021	1/8/2021	8/31/2021	10/31/2021
2	4/1/2021	10/15/2021	7/31/2021	1/31/2022	3/31/2022
3	8/1/2021	1/15/2022	5/31/2022	12/31/2022	2/28/2023
4	1/1/2022	5/15/2022	11/30/2022	9/30/2023	11/30/2023
5	3/1/2022	7/15/2022	2/1/2023	10/31/2023	1/31/2024