

**State Planning and Research Program  
Quarterly Report**

**PROJECT TITLE:** *High Performance Plow Blade Evaluation*

**OBJECTIVES:** The objective of this project is to develop a field test protocol and cost-benefit analysis methodology that may be reproduced by Clear Roads agencies in future testing, so that other blades may be evaluated and compared using the same standard procedures used in this project.

**PERIOD COVERED:** October 1 to December 31, 2021

**PARTICIPATING AGENCIES:** Minnesota Department of Transportation and the Clear Roads Technical Advisory Committee

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

**LEAD AGENCY:** MnDOT

**PRINCIPAL INVESTIGATOR:**  
William Schneider IV, PhD.,  
University of Akron

**SP&R PROJECT NO:**  
MnDOT Contract No.  
1031542

Federal Project Number:  
TPF-5(353)

**PROJECT IS:**

☐ Planning  
☒ Research & Development

**ANNUAL BUDGET:** \$195,746.58  
(Project Budget)

**PROJECT EXPENDITURES TO DATE:** \$71,340

**WORK COMPLETED:**

- Task 1: Literature review compiled in matrix-style summary (100%)
- Task 2: Survey of DOTs in matrix-style summary (100%)
- Task 3: List of potential blades and testing locations for research (100%)
- Task 4: Design Test Protocol (80%)
- Task 5: Field data collection (80%)
- Task 6: Standard Test Protocol (90%)
- Task 7: Cost-Benefit Analysis (95%)
- Task 8: Quick Reference Guide (95%)
- Task 9: Final Report (95%)

Values for the tasks above were adjusted to reflect the new work required by the addendum.

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:** We are planning on doing future work involving testing new blades in the lab.

**STATUS AND COMPLETION DATE:** The majority of the work over this quarter was to coordinate the shipping of blades from various locations around the country to a lab that will do the work.