

**State Planning and Research Program  
Quarterly Report**

**PROJECT TITLE:** *High Performance Plow Blades*

**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:** April 1<sup>st</sup> to June 30<sup>th</sup>, 2020

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

**PROJECT MANAGER:**  
Debbie Sinclair / 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:** \$99,673.93 (Total Project Budget)

**PROJECT EXPENDITURES TO DATE:** \$ 12,247.18

**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 (100%)
- Task 5: Field data collection (100%)
- Task 6: Standard Test Protocol (90%)
- Task 7: Cost-Benefit Analysis (90%)
- Task 8: Quick Reference Guide (90%)
- Task 9: Final Report (90%)

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

Work with Clear Roads to identify testing to be pursued with independent laboratories. Coordinate with Clear Roads to have sample blades sent to those identified independent labs. Commence lab testing.

**STATUS AND COMPLETION DATE:**

An amendment to partially re-scope this project is under discussion with the research team and Clear Roads. Due to COVID-19, that amendment process has been somewhat delayed. An interim amendment was submitted to allow time for the research team and Clear Roads to work out the details of the amendment to re-scope the project contract.