RESEARCH REPORT DOCUMENTATION PAGE

1. Report No.	2. Report Date	3. Contract No.	4. Project No.
MR 2010-03	December 2011	N/A	

5. Title and Subtitle	6. Report Type	7. Project No.
Evaluation of Snow Plow Blade Systems	Click on link to open report Work Plan ☐ Construction ☐ Evaluation ☒ **Final X**	8. Project No. 9. Project No. 10. Project No.

11. Author(s)/Principle Investigator(s)
Andrew Mastel

12. Performing Organization Name and Address		13. Sponsoring Agency Name and Address
NDDOT M+R ☒ NDDOT OTHER* ☒ NDSU ☐ UND ☐ UGPTI ☐ OTHER* ☐ *see supplementary notes	North Dakota DOT Materials and Research Division 300 Airport Road Bismarck ND 58504-6005	North Dakota DOT Materials and Research Division 300 Airport Road Bismarck ND 58504-6005

14. Supplementary Notes
Dickinson

15. Abstract

Purpose and Need
The current NDDOT standard blade replacement is carbide steel. Several new blade systems have become available. The NDDOT desires to evaluate three of these new blade systems in an effort to reduce costs and improve efficiency.

Objective
The objective of this project is to evaluate the field performance of three snow plow blade systems during the 2010-2011, fall through spring snow and ice season. The current NDDOT standard carbide blade system will serve as the control product for the project.

Scope
The Dickinson District will evaluate three different blade systems; system 1 - Carbide Steel(control), system 2 – Joma Blade system, system 3 – Polar Flex blade system and system 4 – Stacked Blade Traditional Carbide Steel.

Summary
The stacked carbide steel blade test showed no advantage over traditional blades and was discontinued after the first set was worn out.

The Dickinson District reported that based on the results of this study and their experiences this last snow and ice removal season, they intend to expand the use of the Joma blade system. However with the issue of the blade angles being resolved they may consider also using the Polar Flex blade system. Generally speaking the District feels that these blade systems provide better cleaning performance and longer service life than the traditional carbide blade systems.

16. Key Words	17. Distribution Statement	18. No. of Pages
Blade Systems Joma Polar Flex Cutting Edges	No restrictions. This document is available in PDF by clicking ***here***. North Dakota Department of Transportation Materials and Research Division: 300 Airport Road Bismarck ND 58504-6005 Office: (701) 328-6900 Fax: (701) 328-0310	72 19. File type pdf