

2016 UDOT RESEARCH PROBLEM STATEMENT

*** Problem statement deadline is March 14, 2016. Submit statements to Tom Hales at tahales@utah.gov. ***

Title: Snow Plow Equipment Lighting - Best Practice Recommendation

No. (office use): 16.02.07

Submitted By: Jason Richins

Organization: UDOT

Email: jtrichins@utah.gov

Phone: 801 360-4985

UDOT Champion (suggested): Brandon Klenk

Select One Subject Area

Materials/Pavements

Maintenance

Traffic Mgmt/Safety

Preconstruction

Planning

Public Transportation

1. Describe the problem to be addressed.

New LED lights are being tested and used on snowplows in other states and lights in different configurations are being used. Western Transportation Institute - WTI has done a lot of research on this topic. We would like to fly one or two researchers down and have them give us a presentation, look at our light configurations on our plows and make suggestions for improvements. WTI's report gives an estimate of \$3,000 per truck to add supplemental LED lights. Research would like to fund two snow plows to have the additional lights installed and use them in rural and in the mountains to see how they work. LEDs also don't generate enough heat to keep them from freezing. We would like at options for keeping the LEDs free of ice also.

2. Explain why this research is important.

We would like to see if our snow plow lighting is sufficient or if we can add lights or use a different configuration of lights to improve safety for our snow plows and for the travelling public.

3. List the research objective(s):

1. Presentation and visit from WTI researchers.
2. Test different light and different configurations on two snow plows to see if improvements can be made.

4. List the major tasks:

1. Presentation and visit from WTI researchers.
2. Test different light and different configurations on two snow plows to see if improvements can be made.
- 3.

5. List the expected results:

1. Better visibility for the snow plow drivers and for the traveling public to avoid the plows.
2. We hope to find lights that are easier to maintain.

6. Describe how this research will be implemented.

This research would be implemented either in adding lights to existing plows or as plows are replaced they would be ordered with the new configurations.

7. Requested from UDOT: \$8,000
(or UTA for Public Transportation)

Other/Matching Funds: \$

Total Cost: \$

8. Outline the proposed schedule, including start and major event dates.

Plan a meeting this spring or summer to have WTI come and give us a presentation and have them look at our plows and make suggestions on improving our snow plow lights.

Early fall configure two plows in the lighting configuration as recommended.

Test the lights through the winter of 2016-17 and evaluate the lights.