Research Problem Statement

ODOT Research Section
555 13th Street NE; Ste 2
Salem OR 97301-5192

Phone (503) 986-2700
Fax (503) 986-2844

I. TITLE

17-028 Reactive Road Reflector

II. PROBLEM

It's difficult to spot black ice on the road in the winter time which can lead to life threatening accidents. A reactive road reflector that is yellow when the temperature is above freezing and changes color to blue when the temperature drops below freezing, can help alert drivers that there's an increased risk of there being black ice on the roads.

III. PROPOSED RESEARCH, DEVELOPMENT, OR TECHNICAL TRANSFER ACTIVITY

Develop a reflector that's paint can change from yellow to blue when the temperature drops below freezing. This would require building a prototype and then conducting lab and field tests. I have seen businesses that have stickers on their doors leading to the outside that will change to blue when the temperature drops below freezing to alert the customers when they're leaving.

IV. POTENTIAL BENEFITS

This could benefit the safety of those traveling on Oregon roads by alerting them of a potential hazard on the road and giving them time to adjust their driving behavior to a potentially more alert and safe one.

V. IMPLEMENTATION

This research would produce a workable prototype that could be a benefit to all of the travelers on Oregon's roads by alerting them of potential hazards. This would be supported by maintenance operations.

VI. LIST OF REFERENCES *(optional)*

VII. CONTACT INFORMATION

Your name: **Bryan Porter**
Affiliation: ODOT Contractor
Telephone: 503-986-6700
Email: Bryan.Porter@odot.state.or.us

Person Responsible for Implementation:
Affiliation:
Telephone:
Email: