

## Time to Clean Up Those Barrier Markers

### BACKGROUND

In February 1997, ODOT Construction installed seven types of barrier markers to investigate short-term performance. The barrier markers are typically installed on the top of concrete barriers or other delineators to visually enhance the alignment. The markers were installed on a construction site in Salem, along the northbound right shoulder of I-5 near Silverton Road, as shown below.



Test Site.

### EVALUATION

Ten markers from each manufacturer were installed in random order. Prior to installation, the retroreflectivity of each marker was measured in the ODOT Materials Laboratory. The markers were removed 6 ½ months after installation and the retroreflectivity was measured in the lab again to determine the impacts of dirt and wear on performance. The markers were then cleaned by washing with soap and water and tested a third time.

## **PERFORMANCE**

Based on the results of the study, with the exception of one prismatic type marker, the markers lost more than 90% of their reflectivity from exposure to field conditions. The prismatic marker lost 68% of the original reflectivity. The reflectivities increased significantly after washing to within about 12% of the original values.

## **CONSIDERATIONS**

Barrier markers will lose their reflectivity over time due to exposure to traffic, grit, weather, etc. Washing can restore most of the markers' reflective properties. At a minimum, the markers should be cleaned in the spring. The markers should also be cleaned when visual observation indicates that dirt collection may impair the effectiveness.

- Construction projects should include a requirement to periodically inspect the markers and clean them as directed by the Engineer.
- Maintenance crews should be aware of the reduced performance associated with field conditions and schedule periodic inspections. Regular intervals for cleaning are difficult to set because of variable field conditions.

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