EXPERIMENTAL USE OF TEMPORARY TRAFFIC DELINEATORS

Experimental Feature
Final Report

OR 88-01

by

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Prepared for

FEDERAL HIGHWAY ADMINISTRATION
Washington D.C. 20590

December 1988

INTRODUCTION

During construction, there is a safety need to provide highly visible channelizing delineation for temporary protection and direction of traffic. "Super Duck" Surface Mounted Delineator (SDR-328, Rounded) by Carsonite is marketed to meet that safety need.

The purpose of this study was to evaluate "Super Duck's" visibility and ability to remain in-place after vehicular impact thus not requiring any maintenance. This is the final report describing the performance of "Super Duck" which was installed on the Sutton Lake-Florence Project in January 1988.

CONSTRUCTION

The project on the Oregon Coast Highway involved staging traffic in the northbound lane. The Average Annual Daily Traffic (AADT) is 4200 vehicles. This area is also subject to high rainfall and fog. The delineators separated traffic in the same direction for one stage and separated opposing lanes of traffic for the other stage.

The surface mounted delineator is a polyethylene/EVA thermoplastic post reinforced unit with a 3/8" circular fiberglass rod attached to a flexible rubber boot and a detachable base unit. "Super Duck" has two white bands on an orange post and 360° delineation.

Fourteen "Super Ducks" were installed taking 30 seconds per delineator. The installation did not require epoxy since the delineators are mounted with mastic adhesive pads.

EVALUATION

The delineators were evaluated on October 6, 1988. Of the 14 installed in January 1988, only 3 needed to be replaced. In one case, the rubber base was ripped to the point of failure. The other two "Super Ducks" were applied over an existing painted line. When vehicles impacted these delineators, the posts, bases and adhesive separated from the roadway. The "Super Ducks" showed no visible damage.

The "Super Ducks" were compared to the conventional cones, candles, and plastic barrels. They generally provided superior visibility to candles and cones while equivalent to plastic barrels. They remained in-place and in an upright position throughout the evaluation period. The only problem in installation occurred when the delineators were applied on painted surfaces.

Individual Material Costs :	Super Duck	$21.50
	Bands	3.00
	Adhesive Pad	2.10
Labor Costs (incl. flagging)		7.15
Total		33.75 Ea.

DISCUSSION

The Project Manager suggests that "Super Ducks" be used as an alternative to cones or candles in normal applications. He also felt that they should only be substituted for plastic barrels where narrow shoulders or work spaces made the use of barrels difficult.

CONCLUSION

The "Super Ducks" meets a safety need to provide highly visible channelizing delineation for temporary protection and direction of traffic. "Super Ducks" 360° delineation and resistance to multiple vehicular impacts provides enhanced safety over conventional cones and candles.

The cost savings were realized from the 30 second installation time and the ability of "Super Duck" to tolerate impact and still be fully functional, thus reduce the maintenance costs associated with conventional, movable cones. Because of the benefits the delineators are recommended for use in areas of long term (more than six months) traffic staging.