Pavement Marking Management: Local Agency Practices

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ABSTRACT

Providing good pavement markings is an essential component of safe and efficient travel on Iowa’s public roadways. Based on a recent Iowa Department of Transportation project, which has focused on pavement marking performance, local agencies are cautioned in choosing marking materials without field verification of performance in terms of durability and retroreflectivity.

Local agencies rely heavily on contractors to apply pavement markings and currently lack the tools to clearly identify marking conditions systemwide, to select the appropriate combinations of markings to apply based on these needs, and then to track performance and budget over the lifetime of the marking material.

The Iowa Highway Research Board is funding a study to look at local agency pavement marking practices and investigate the feasibility of developing retroreflectivity guidelines, a pavement marking application matrix, and quality control issues (contractor- or agency-applied material) for local agencies in Iowa.
As part of this project, the research team collected pavement marking inventories from three local agencies in the fall of 2006 (two counties and one city). Two more agencies will be started this spring. Pavement marking retroreflectivity data were collected on Dallas County, Marion County, and City of Ames roads in the fall of 2006. Measurements were taken approximately every half-mile on the county roads and every 500 to 1,000 ft. on the city roads. White edgelines, white skip lines, and various types of yellow centerlines were collected. The pavement marking retroreflectivity was measured with a Delta Retrometer LTL-X to assess the quality of the pavement markings. The data was stored in a GIS environment to allow for easy viewing and analysis of the data. This abstract will address how the retroreflectivity data will be used to help local agencies in developing a marking program to address roads with the most needs and to contrast the performance of different materials used in the agency’s pavement marking program. The abstract will also cover new materials that will be used in demonstration sites this summer. The goal is to test different pavement marking paint, bead, and application method (surface-applied or grooved) combinations to assess performance and durability and provide local agencies with options in terms of an application matrix to be used for determining future needs.

Key words: pavement marking—retroreflectivity