## Abstract

With the current level of deterioration of pavements in Oklahoma and the United States a satisfactory repair technique that is economical and can be applied rapidly while resisting a significant volume of traffic is becoming important. Thin concrete overlays have been used in increasing numbers over hot-mix asphalt (HMA) pavements and at intersections as a rapid and economical method of repair. These repairs have shown outstanding service in the state of Oklahoma with service lives over 10 years when used in areas with moderate truck traffic. These overlays are commonly referred to as white toppings as the overlay material is much lighter than the asphalt it is overlaying.

This report is organized in three major sections. In section 2 the current condition of whitetopping projects is reviewed in Oklahoma. The inspection of these projects was primarily done with visual inspection, but some work was done with cores from the projects and also with Falling Weight Deflectometer (FWD) measurements. In section 3 a review of the different whitetopping design methodologies is presented. In section 4 specific unanswered questions over whitetoppings are covered that the Oklahoma DOT felt were important to address from the existing literature.

### Keywords

Concrete, Pavement, Ultra-Thin Whitetopping