

PURPOSE

The purpose of this project was to evaluate the location and quantities of debonding in the selected portland cement concrete (PCC) overlays.

SCOPE

The project entailed an infrared thermographic and a ground penetrating radar survey of the PCC overlays to locate areas of debonding between the overlays and the original pavement. An infrared scanner is capable of locating these areas because of the temperature differential which is established between bonded and debonded areas, under certain environmental conditions. A conventional video inspection of the top surface of the pavement was also completed in conjunction with the infrared thermographic survey to record the visual condition of the pavement surface. The ground penetrating radar system is capable of locating areas of debonding by detecting return wave forms generated by changes in the dielectric properties of the PCC overlay - original pavement interface.

This report consists of two parts; a text and a set of plan sheets. The text summarizes the procedures, analyses and conclusions of the investigation. The plan sheets locate specific areas of debonding, as identified through field observations.