

REJUVENATING AGENT RATE FOR ONE-INCH SURFACE RECYCLE ON K-9 NEAR WETMORE

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Introduction

The one inch surface recycle process for asphalt pavement preservation has been used for many years in Kansas. The recycling process typically uses four propane heating units, a tined scarifying unit attached to the last heating unit and a paving machine to achieve a three quarter to one inch total depth of recycled material. This recycled layer is then covered with a 1 to 1½ inch thick overlay wearing surface.

Project Objective

The intent of the investigation was twofold: first, to determine the property changes of the recycled material in comparison with the original pavement material and second, to determine how the properties of the recycled material change when the emulsion rate is changed.

Project Description

This specific project was in Nemaha County on K-9 near Wetmore. Two test sections and a control section, all 990 feet in length, were installed. The east end of test section #1 is at Milepost 280 and the other two sections are consecutive to the west of test section #1, all in the eastbound lane. The before and after gradation, asphalt content and thermal cracking properties were determined as well as the potential rutting stability of the recycled mixture. Cores taken after the project was completed were used to determine the lift thicknesses and the compaction effort on the recycle and surface lifts.

Project Results

The Research Asphalt Team is scheduled to monitor the sections on an annual basis with a performance survey that will include crack mapping, rutting checks and visual observations.

Report Information

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