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RESEARCH UPDATE

Update U96-24

**RECLAIMED BASE COURSE STABILIZED
WITH CALCIUM CHLORIDE
(INTERIM REPORT)**

REFERENCE:

WP 93-R-6, Report 95-3

LOCATION:

The project began on VT 73 in the town of Brandon at MM 5.887, and extended westerly 13.37 km to MM 3.610 in the town of Goshen.

HISTORY:

During the summer of 1994, the existing 75 mm to 140 mm of bituminous material was pulverized along with some of the gravel subbase to an average depth of 150 mm. A 30% solution of calcium chloride (CaCl) was sprayed onto and mixed into the pulverized material at an application rate of 3.4 L/m². After rolling the base course, an additional 1.1 L/m² of CaCl solution was sprayed over the surface prior to the placement of a 50 mm Type II bituminous concrete binder course. The project surface course was 45 mm Type III bituminous concrete pavement.

Two control sections, each 320 m in length, were constructed as above except that the base course was not stabilized with CaCl.

COST:

The initial cost is referenced in report 95-3.

STATUS:

The project was inspected in May of 1996. Crack surveys indicate 6 m of cracking in the areas that were not treated with CaCl and no cracking in the areas that were treated. The Mays values are somewhat lower (1.69 mm/m) in the stabilized sections as compared with those that were not treated with CaCl (2.05 mm/m). A rut of 2 mm has formed in the left wheel path of the west-bound lane, running continuously from MM 1.60 to MM 2.37, through both treated and untreated sections. Less significant rutting was noted at MM 2.37 in the east-bound lane, right wheel path.



Longitudinal cracking in untreated test site at MM 2.33



No distress noted in treated lane (east-bound) or untreated lane (west-bound) at MM 1.65

FOLLOW UP:

The project will continue to be monitored annually, with an emphasis on identifying differences between the sections that have been treated with calcium chloride and the sections that were not treated.