
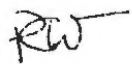


MATERIALS & RESEARCH DIVISION

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RESEARCH UPDATE

NUMBER U90-2

3M 350 TAPE ON OPEN GRADED PAVEMENT - I 89 COLCHESTER

REFERENCE: Work Plan 88-R-4, Update U88-10

HISTORY:

During construction of Colchester IR 089-3(14), an experimental durable pavement marking, 3M 350 Tape, was specified for the Northbound and South bound 10' x 4" white dashed centerlines on this resurfacing project. Control was to be the edgelines which were painted with standard traffic paint.

APPLICATION:

The application of the experimental product occurred during July of 1989, ending on July 31, 1989. The special provisions of this contract called for the presence of a manufacturer's technical representative on the project at all times. Although the manufacturer did not provide full time coverage, a representative was present during some of the application to assure that contractor personnel were following proper application procedures. Fifteen thousand nine hundred LF of 4" white line was applied between milemarkers 92/00 and 98/00 on both Northbound and Southboundlanes.

COST: The price for this product was \$1.50 per LF. installed for a total cost of \$23,850.00.

STATUS:

On August 18, 1989 a cursory inspection of the product was made. At that time it was noted that the two week old product was "slightly gray - about equal to the painted edgelines." Only one damaged stripe was noted with a loss of approximately 6" of tape. It was also noted that the tape could be lifted from the surface of the pavement with only gentle pressure using fingers only.

The project was inspected on January 4, 1990 by Research & Development personnel. Substantial loss of product had occurred as shown below.

Percent Loss	None	1 to 10%	10 - 90%	90 - 100%	Overall
<u>Northbound</u>					
<u>No. Dashes</u>	439	56	83	214	33%
<u>Southbound</u>					
<u>No. Dashes</u>	551	125	57	66	12%

STATUS: continued

An independent inspection was made by Maintenance division personnel on January 5, 1990. This inspection confirmed the percentages lost.

As can be seen, the southbound is in better shape but 12% is still a significant loss. On the southbound lane much of the loss is leading edge damage in the 1 - 10% category. On the northbound many of the stripes are in the 90 - 100% loss category and occurred in groups which accentuates the lack of delineation in some areas. Many of the 90-100% lost stripes have 2 to 4" of the leading edge still present. These were tamped down during application to obtain a lower leading edge profile.

The painted edgelines on this project were all visible although somewhat yellowed as is expected for a first application over new asphalt.

CONCLUSIONS:

The percentage of product lost after only four months is unacceptable. Further use of 3M 350 Tape on open graded friction courses is not recommended.

FOLLOW UP: A final evaluation will be made in the spring.