

MATERIALS & RESEARCH DIVISION

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RESEARCH UPDATE

NUMBER 88-18

TEMPORARY RAISED CONSTRUCTION MARKERS

REFERENCE: Research Update U88-14

HISTORY:

On August 1, 1988 400+ raised construction markers (RCM's) were installed on SA-6 in Barre Town. Two products, "Stimsonite" and "Flex-O-Lite" were applied on a 2000'+ test section which included both old (oxidized) and new pavement. Application methods and materials were reported in U88-14.

STATUS

From August 1st until November 1, 1988, the two products were evaluated for durability and both have proven to be durable products which effectively notify the driver of the location of the expected travel path.

By October both had experienced some loss of markers which had been applied with butyl rubber pads, however this was due primarily to vandalism and not to traffic wear. The markers applied with hot liquid bitumen were more difficult to remove. One attempt by vandals resulted in a cracked marker and pavement damage but left the marker in usable condition.

In October the markers were evaluated for removability. Both products were easily removed with a square shovel regardless of adhesive material, although some minor chipping damage did occur on 24% of the specimens removed. Both products are more easily removed from old pavement than from new. Both products tended to be imbedded from 1/16" to 1/8" into the pavement and their removal resulted in small depressions in the pavement. Pavement damage was less likely to occur with the bitumen adhesive but the bitumen residue was left on the surface. The remaining 300+ markers were removed in mid-November.

Both products left visible marks on (or in) the pavement but 75% of the markers would be reusable with new adhesive.

CONCLUSION

Both products appear to provide excellent delineation and reflectivity and appear to exceed all other non-lighted materials in wet-night reflectivity. Both installed easily, were retained on the surface well and removed easily with hand tools. Their adoption as a construction zone marker is recommended except where the residual discoloration of the pavement would be a post construction safety hazard.

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