



## Trail/Road Coating for Snowmobile Crossings

**Project Number** 2012-02

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**Problem** Snowmobiles often cause damage to pavement when they cross trails and roads, requiring repairs to be made earlier than in non-crossing areas. The trails are often used for biking and rollerblading, which require a smooth, undamaged trail for safety reasons.



**Solution** The county installed a thermoplastic coating attained from P.K. Contracting in Troy, Michigan, to minimize or eliminate this problem on roads and trail systems.

**Procedure** The material was placed at crossing locations on roads and trails in September 2013, prior to the winter snowfall season. The product was placed in a hopper on a flatbed truck and heated to 420°F. It was then transferred to a small pushcart machine, which placed the material and scattered silica sand behind. Silica sand was also spread by hand to ensure even distribution.

The product was placed in a series of 12-inch strips starting from centerline. Three layers were placed with each layer offset 6 inches in from the previous layer to prevent snowplows from peeling off the material. Silica sand was placed along each strip to increase the bond between layers, to prevent vehicle tires from peeling it up before it fully cured, and to provide friction for drivers. The process took approximately an hour in each location, and traffic was allowed on the roadway within 10 minutes of placement.

**Results** County officials kept track of how many snowmobiles crossed the roads and trails for two years and evaluated the condition of the coating and pavement each spring. The coating held up very well through both winters, requiring only basic maintenance procedures such as plowing and salting. Damage at locations where snowmobiles cross was very minimal compared to locations without the thermoplastic coating.

**Approximate Cost** \$10,328

**OPERA Funding** \$7,600

**Implementation** The county anticipates future cost savings because the protection offered by the coating will reduce the need to repair the roadway in the crossing area. If the treated area continues to prevent damage to the roadway from snowmobiles as it has for its first two years, county staff will be able to use the regular maintenance schedule.

**Status** Complete

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