

# PROJECT SPOTLIGHT: MUNICIPAL ROAD

## Base and Subbase Stabilization

<b>&gt;400%</b> Increase in Unconfined Compressive Strength	<b>100%</b> In-place material stabilized	<b>0</b> Repair Work Since Installation
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### CHALLENGES

- Deliver all weather durability and eliminate the need for widespread road maintenance and rework after each winter season.
- Limited county resources made traditional approaches cost prohibitive.
- The existing road base material was too weak to support a chip seal surface without modification.
- Specific performance requirements had to be met to receive Consolidated Local Street and Highway Improvement Program (CHIP) funding.

### SOLUTION

- Stabilize the upper 6" of the existing road with Midwest's Soil Sement Engineered Formula® polymer to improve its load bearing capacity and durability.
- Install a chip seal surface on top of the stabilized base.

### RESULTS

- **Designed to Improve Structural Strength and Withstand Traffic:** Laboratory testing with the selected mix design achieved over 400 psi in Unconfined Compressive Strength – increasing the UCS value by over 4x the untreated material.
- **All-Weather Durability:** The chip sealed road maintained its integrity throughout winter and freeze/thaw cycles – eliminating spring maintenance and reworks.
- **100% In Place Material:** Stabilizing the in place material eliminated the need to import additional materials – cutting hauling costs, disruptions, and time.
- **Improved Foundation for Chip Seal:** The stabilized base provided a strong and reliable foundation for the chip seal surface.
- **Qualified for State Funding:** The stabilization met the requirements for funding through the Consolidated Local Street and Highway Improvement Program (CHIP).



### PROJECT BACKGROUND

**Product:** Soil Sement Engineered Formula®  
**Location:** New York  
**Industry:** Municipal  
**Customer:** Highway Department

The Highway Department is responsible for maintaining and servicing the town's roadways and transportation infrastructure. With a tight budget and aging roadways, the Highway Department leveraged available state funding, through the Consolidated Local Street and Highway Improvement Program (CHIP), to reconstruct and surface a problematic unpaved road. However, to qualify for funding, specific performance requirements must be met. Among these requirements was the "10 year rule" which prohibits preventative maintenance and resurfacing of the new road for 10 years. The Highway Department engaged in a strategic partnership with Midwest to design a solution that fulfilled all requirements for CHIP funding while remaining cost effective. The developed solution was to stabilize the existing road material utilizing Midwest's polymer-based Soil Sement Engineered Formula® followed by the placement of a chip seal surface.

### LOOKING FORWARD

The success of this project provides the Highway Department with a strategic framework to effectively address its aging infrastructure utilizing Midwest's innovative technologies and securing state funding.