

PROJECT SPOTLIGHT: RENEWABLE ENERGY INFRASTRUCTURE

Subgrade Stabilization

400% Increase in Unconfined Compressive Strength	100% In-place material used	0 Delays in the project schedule
--	--	---

CHALLENGES

- The existing road base material was too weak to support the heavy haul traffic loads.
- Moisture issues, rutting, and surface deformation were inevitable without intervention.
- Importing aggregate would require hundreds of truck loads – significantly raising costs and delaying the project schedule.

SOLUTION

- Re-graded the road to establish a cross slope for effective drainage.
- Stabilized the upper 8" of the existing road with Midwest's Soil Sement Engineered Formula® polymer.
- Independent testing was performed every 550 square yards to confirm targets were achieved during installation.

RESULTS

- **Designed to Withstand Extreme Traffic:** Laboratory testing with the selected mix design achieved over 500 psi in Unconfined Compressive Strength – increasing the UCS value by nearly 4x the untreated material.
- **Efficient Installation:** The stabilization was completed in a matter of days – keeping the turbine deliveries on schedule.
- **100% In Place Material:** Stabilizing the in place material completely eliminated the need to import additional materials – cutting hauling costs, disruptions, and time.
- **Eco-Friendly Alternative:** Midwest utilized its eco-friendly polymer to stabilize existing soils, thereby eliminating the carbon emissions typically associated with importing aggregate and using cement stabilization.



PROJECT BACKGROUND

Product: Soil Sement Engineered Formula®
Location: New Mexico
Industry: Renewable Energy Infrastructure
Customer: Logistics Company

The development of a large-scale wind farm project relies on strong logistics and dependable infrastructure. For this project, the logistics company was responsible for delivering the turbine components, including enormous blades, towers, and nacelles from the railhead to the project site. The critical link was a 2.5-mile gravel county road; however, without intervention, the road would not withstand the extreme traffic loads required for turbine delivery. Traditional fixes, such as importing new aggregate and full reconstruction of the road, would be costly and delay the project. Instead, the logistics company chose a proven alternative stabilization solution using Midwest's polymer-based Soil Sement Engineered Formula® to improve the strength of the existing road materials.

LOOKING FORWARD

This renewable energy infrastructure project demonstrates a clear model for other heavy-haul corridors. Stabilizing existing soils delivers performance equal to or better than traditional methods, without the cost, disruption, and emissions of aggregate import. For logistics providers, energy developers, and counties alike, the message is the same: stabilization is a proven alternative that saves money, time, and carbon.