

# Manufactured Topsoil Success Story

## Williston, VT Park and Ride

### Manufactured Topsoil (MFT)

MFT is an exceptionally productive, cost-effective, and sustainable alternative to stripping native loam, compliant with VTrans topsoil specifications. It is composed of locally sourced, environmentally sound recycled materials that supports lush, healthy vegetative cover requiring little additional input or maintenance. With an increase in both cost and scarcity of native topsoil, as well as the enactment of Act 250 preventing the stripping of material from existing gravel pits for this purpose, Manufactured Topsoil is the ideal solution for roadside construction projects and reclamations.

### The Project

The construction of the Williston, VT Park and Ride off of I-89 required a topsoil cover that could withstand erosion on sloped terrain and sustain healthy, long-term vegetative cover. The solution was the utilization of MFT composed of recycled materials sourced from generators within the state of Vermont. Exceptional Quality (EQ) Biosolids, Paper Fiber, Wood Ash, and sand were thoroughly mixed and screened by the contractor and placed in a windrow to mature for three months prior to application. The finished topsoil was trucked to site, spread with conventional construction equipment, and seeded with conservation mix.



Individual materials were mixed offsite and set in a windrow to encourage microbial activity prior to application.



### The Blend

Blends are project specific based on project requirements and ingredients.

- 5 part Paper Fiber for increased organic matter and improved water retention.
- 5 part sand for porosity and structure.
- 1 part EQ Biosolids as a source of slow-release, plant available nitrogen, and organic matter.
- 1/2 part Wood Ash for pH adjustment, potassium, micronutrients, and deep, rich color.



Topsoil placed and seeded in mid September, grass growth started almost immediately.

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### The Results

**Average pH: 7.9, Average Organic Matter %: 3.8**

The superior erosion control capabilities of MFT made it an optimal tool for stabilizing this sloped, challenging terrain, with minimal soil loss even months after the completion of the project. The vigorous organic matter, slow release nitrogen, and micronutrients supplied by the blend sustained long-term, healthy vegetative growth that required little input or maintenance. Utilizing MFT for this project not only ensured a successful site reclaim, but also safely assured that key nutrients were recycled back into Vermont soils instead of taking up space in a landfill.



Photos taken in late September 2023. Grass growth continuing, near full cover.



Photos taken in November 2023 after paving had begun. Dense, healthy grass cover.



Photos taken in June 2024. Site boasts a thick, vibrant blanket of vegetative growth. No signs of erosion on the sloped terrain.