LivingWall Environmental Impact

Project Profile

Project Details

The homeowners of a historic lakefront property had slope stability concerns as well as a desire to access the sandy beach at the water's edge. From the view from the back porch windows, the home was right at the edge of the slope. The project site is located on a 115 foot 2:1 bluff overlooking Lake Michigan. It was determined by the geotechnical engineer that the site required stabilization.

Marek Landscaping, LLC, based in Milwaukee, WI, designed and implement the project, selecting a Filtrexx GreenLoxx living wall for the upper portion of the bluff. This would stabilize the area directly adjacent to the home, adding eight feet of yard to the upper terrace. The living wall would be the foundation from which the deck and stairs would be anchored, providing access to the beach and a sweeping view of the coast. A low impact trail created a rustic but navigable route to the base of the slope.

This low impact solution promotes the growth of native plants for both a natural aesthetic as well as stabilization properties.

Wisconsin Lakefront Bluff Stabilization

Shorewood, Wisconsin

The living wall consisted of lightweight geo-foam block backfill material, soil anchors, and 3" galvanized pipe tied to layers of geogrid wrapped around every two layers of the GroSoxx® at the face of the wall. A native plant and seed mix was created specifically for the cultural needs and stabilization properties of the plants on the site.

This environmental impact statement is for a **1,500** facial square foot wall on a lakefront repair project in Wisconsin. The project utilizes **2,000** linear feet of Filtrexx® 12" GroSoxx® filled with Filtrexx Certified℠ GrowingMedia™.

- **320,000 lbs.** of Organics Diverted from Landfills
- **8,000 gallons** of Potential Rainfall Absorption
- **560,000 lbs.** of CO_2e Methane Avoidance
- **75 lbs.** of CO_2 Sequestered in Vegetation
- **54,000 lbs.** of CO_2 Sequestered in Soil

The calculated numbers are based off of Filtrexx TechLink Research Summary #3335, Ecosystem Service Benefits of Filtrexx Compost Based Sustainable Management Practices (SMPs).

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