Norton Branch Vegetated Reinforced Soil Slope Revisited After 25 years

Mark H. Wayne, Ph.D., P.E.
Tensar International

Robbin B. Sotir
Robbin B. Sotir & Associates, Inc.

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1

Project Background

A section of Norton branch tributary, located in Sevierville Tennessee, was relocated to maximize space for a shopping center in 1994.

To maintain the resulting steep and high banks of the newly relocated stream system and enhance aquatic and wildlife habitat, a vegetated reinforced soil slope system (VRSS) was constructed to contain the flow.

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During Construction

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After Construction

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bare-root, nursery-stock plants were used in the soil bioengineering VRSS construction. To restore some of the lost riparian and aquatic habitat, the vegetation was installed in the lower bank wraps.

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Third Growing Season

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The varieties of plants used included Bankers willow; Salix X cotteti and Streamco willow, and Salix purpurea, which are hybrids, developed by the USDA/NRCS.

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The reconstructed channel is completely stable. Survival and growth of the plantings was excellent with growth overhanging approximately two-thirds of the streambed.

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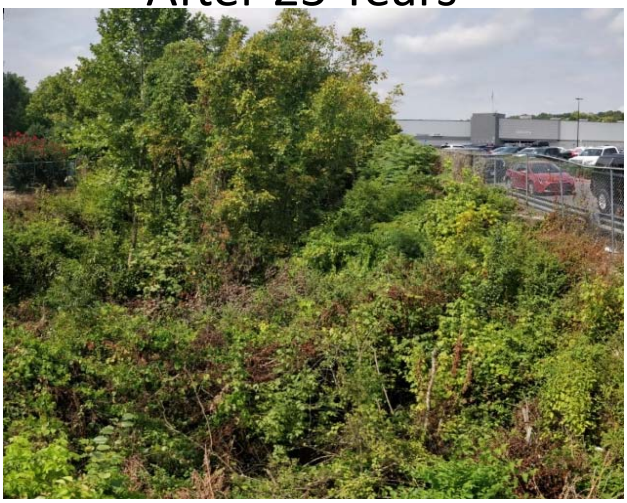
After 25 Years



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Additional Project Documentation

"A Case History on the Use of Bioengineering in Reinforced Soil Slope Design," M.H. Wayne, and S. Wokasien, *48th Highway Geology Symposium*, Knoxville, TN, 1997, pp. 157 - 166.

Sotir, R.B., and Frazier, L (1997), "Stream Realignment and Restoration Achieved Through Partnership," to be published in Land and Water, 5 pp.

Robbin B. Sotir & Associates (1995), "Evaluation and Monitoring First Year Report: Wal-Mart Super Center, Sevierville, Tennessee, Stream Realignment/Restoration and Slope Stabilization Project," Report Prepared for Tensar Earth Technologies, 7 pp.

Robbin B. Sotir & Associates (1996), "Final Evaluation and Monitoring First Year Report: Wal-Mart Super Center, Sevierville, Tennessee, Stream Realignment/Restoration and Slope Stabilization Project," Report Prepared for Tensar Earth Technologies, 7 pp.

10

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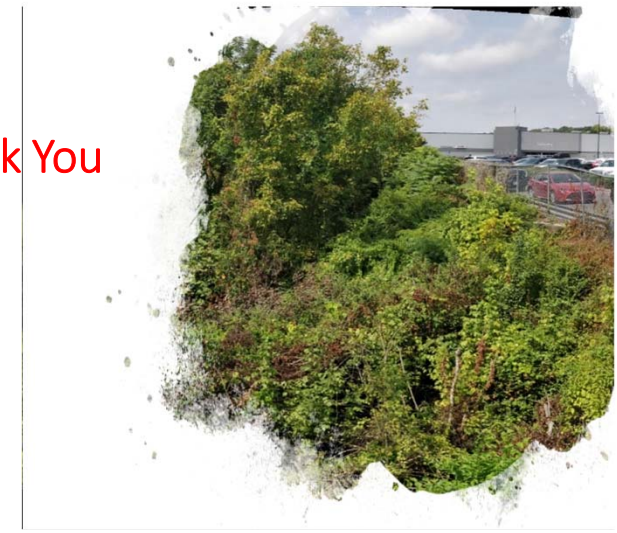
Thank You



11