

## Title: Use of Piles in Slope Stabilization

**SPR No:** 719

**Project Description:** The primary goal of this research is to provide the Agency with design guidance for reinforcing unstable slopes with steel H-Piles and to gap design software omissions. The primary design tool used by the Agency doesn't consider every aspect of failure in the piles and doesn't account for soil stiffness. A second goal of the research is to evaluate the suitability of using the Borehole Shear Test (BST) apparatus as an aid in establishing soil parameters for analysis. The BST is a test that is performed in the field which determines effective shear strength parameters of the in-situ soil. Due to the high expense and length of time required for laboratory testing, this device could be of significant benefit in slide mitigation activity. A site in Cornwall, VT has been identified to conduct a field investigation and testing program.

**Start date:** 2011

**End date:** 2012

**Status:**  Active  Inactive  Completed

**Total Dollars:** \$80,000

**Index Terms:**  Administration  Bridges  Construction  Environment

Geotechnical  Maintenance  Materials  Pavements  Safety  Traffic  Transit

### Sponsor Organization

**Name:** Vermont Agency of Transportation

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### Performing Organization

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**Subjects:** Slope Stabilization, Piles, Borehold Shear Test