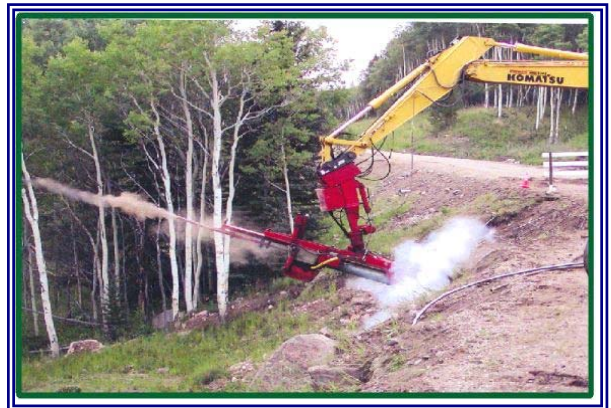




2004 Emergency Projects Successfully Nailed with New Technology

Two slides of embankments along Stocking and Callow Roads occurred in the spring of 2004 when wet weather saturated the soils and induced slides that threatened the pavements and public safety.

Conventional engineering cost estimates put the Stocking Road repair over \$225,000. The Ohio Public Works Commission (Issue 2) gave consent for the Lake County Engineer to use Soil Nail Launching technology with an emergency project budget of \$40,000 and a 25% local share. County forces provided support work to Soil Nail Launcher, Inc. and our costs counted towards the local share. ***This project was completed in a one day maintenance of traffic operation and the final cash cost to the County was just over \$1,000.***



Compressor shooting 20 foot "nails" at up to 200 mph.

Callow Road was also a success story for Leroy Twp., the Lake County Engineer and the Stormwater Management Department. These parties equally split the local half of a \$114,000 OPWC emergency project. Soil Nailing and a shot-crete surface served to stabilize, drain and arrest soil erosion on this steep sloped failure. Pavement restoration and haul road damage were virtually eliminated while saving \$100,000 from the traditional design cost. ***This culvert/slide repair project just won the 2005 Lake County Environmental Improvement Award***



Stocking Road Slip – Developed an 18" vertical failure in the pavement.