



## PROJECT BRIEF

# Replacement of Branford Bridge Foundation Design

## PROJECT PROFILE

CLIENT:  
CME Associates, Inc.

LOCATION:  
Branford, CT

### VALUE:

- Provided oversight of soil nail wall construction and assessed wall and abutment movements to confirm that abutment stability was unaffected by construction

### SERVICES PROVIDED:

- Performed feasibility assessment of retaining wall options for roadway widening
- Analyzed capacity of existing abutment foundations to allow for foundation re-use for support of the new bridge superstructure

“The team of engineers provided the design, coordination, and supervision of an extensive subsurface investigation program, bearing capacity and settlement calculations for the new center pier foundations of the bridge.”



## GEOTECHNICAL DESIGN & ANALYSES

Geocomp is the geotechnical engineer of record for the bridge replacement project. The roles performed by Geocomp on this project included geotechnical design recommendations of the new center piers, re-use of the abutment foundations, soil nail walls, and associated earthwork and dewatering. The team of engineers provided the design, coordination, and supervision of an extensive subsurface investigation program, bearing capacity and settlement calculations for the new center pier foundations, in addition to abutment pile axial and lateral loading analyses. GeoTesting Express also partook in the project providing geotechnical laboratory testing of collected soil and bedrock samples.



## BACKGROUND

The Connecticut Department of Transportation (ConnDOT) is replacing a major bridge in Branford, Connecticut that carries Interstate 95 over US Route 1. The three-span bridge will be replaced with a new, two-span bridge. The existing pile abutment foundations will be re-used for support of the new bridge. The project also involves the demolition of the two existing bridge piers and construction of a new center pier, widening and lowering the existing Route 1 roadway. Soil nail walls are being used to support the existing abutments and provide space for roadway widening.