



Above: MRCE engineers perform downhole seismic logging of a 250 ft. deep boring on Brooklyn's Shore Parkway for a replacement bridge design.

Top left: A prototype downhole source was used for crosshole logging deep deposits. Standard inclinometer casings were installed after completion of design borings organized for correlation of N-values with seismic parameters.

Bottom left: Downhole and crosshole seismic logging were performed to confirm dynamic soil properties to depths of 250 ft. in the glacial outwash sands.

Belt Parkway Bridges and Embankment Widening (Mill Basin and Gerritsen Inlet Bridges)

Brooklyn, NY

Mueser Rutledge Consulting Engineers (MRCE) performed a geotechnical investigation of site subsurface conditions and established seismic design parameters for two NYC DOT bridges along the Belt Parkway in Brooklyn. Mill Basin Bridge is a 865 foot long, 14 span double leaf trunion bascule bridge, and Gerritsen Inlet Bridge is a 520 foot long, 105 foot wide eleven span bridge carrying six lanes of the Belt Parkway over Gerritsen Inlet in Brooklyn, New York. MRCE established design recommendations and cost estimates for foundations. Earthquake analysis of foundations was additionally performed.