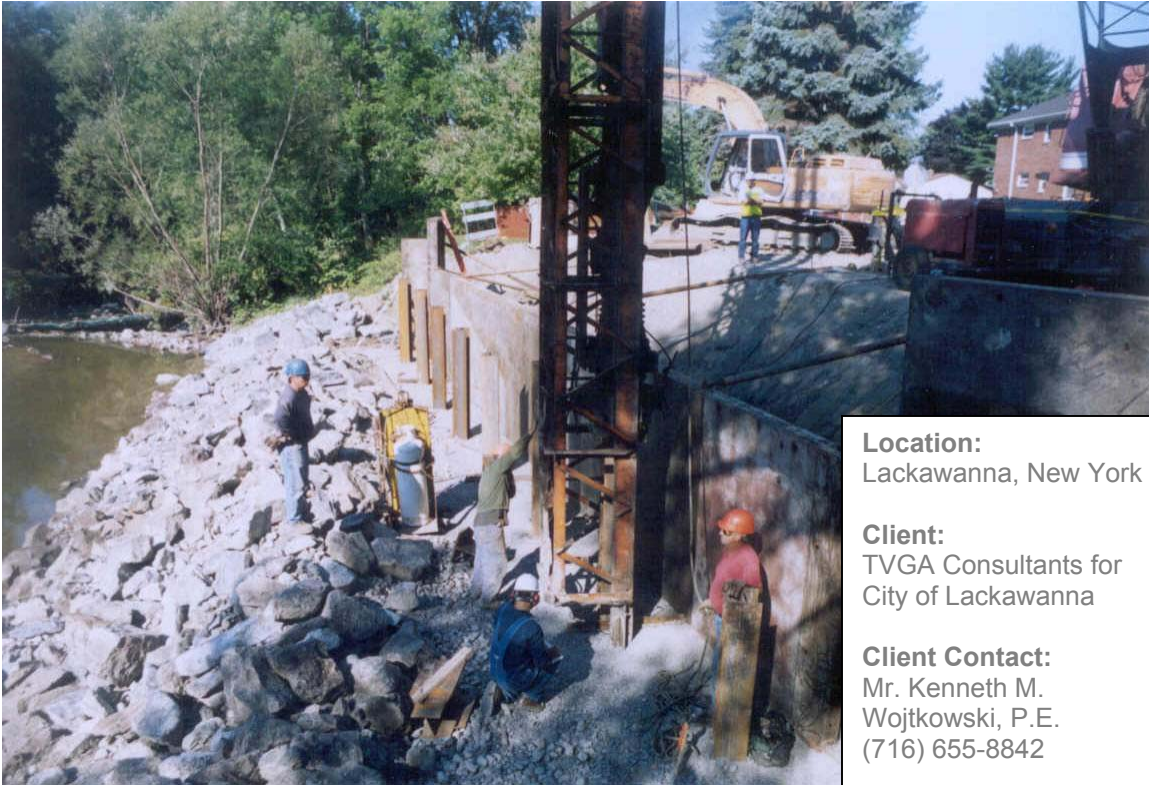


PROJECT DESCRIPTION

Replacement of South Shore Boulevard Bridge



Location:
Lackawanna, New York

Client:
TVGA Consultants for
City of Lackawanna

Client Contact:
Mr. Kenneth M.
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Preparing Driven H-Pile for Pile Driving Analyzer Test

MMCE served as the geotechnical engineering consultant to TVGA Consultants for the design and construction of the replacement of the South Shore Boulevard Bridge over the North Branch of Smoke's Creek in Lackawanna, New York.

MMCE explored the subsurface conditions with test borings behind each bridge abutment and developed design and construction recommendations for a replacement bridge supported by integral abutments. Our recommendations included the estimated capacity of driven H-piles on weathered shale rock. We recommended driving HP 10x42 piles with a design capacity of 55 tons.

MMCE used the Wave Equation Analysis of Piles and the contractor's proposed pile hammer to develop driving criteria for the piles. During construction, MMCE monitored the pile installation and measured the capacity of two piles to confirm the driving criteria using a Pile Driving Analyzer. The PDA tests demonstrated the effort required to develop the desired capacity. All piles were struck with the hammer following the tests to demonstrate that each had the required 55-ton capacity.