



MULLICA RIVER BRIDGE

Port Republic, New Jersey

Owner: New Jersey Turnpike Authority

Designer: Parsons Brinckerhoff

Drilled Shaft Contractor: Case Foundation Company

Years of Project: 2008

Client Reference:
Kwang Ro, Ph.D., P.E. (PB 609-734-7059)

Project Highlights:

The Mullica River Bridge is a 1230-foot long girder bridge supported by five intermediate piers. Each pier is founded on three 8-foot diameter drilled shafts up to 200 feet deep.

A full-scale construction phase O-cell load test was performed on a non-production shaft to verify and refine the foundation design and construction. High Performance Drilled Shaft Concrete (HPDSC) was tremie placed under polymer slurry. This HPDSC was chosen for its superior workability, workability retention, and passing ability. The pea gravel mix was also designed to resist segregation, bleeding, and detrimental effects from heat of hydration.

DBA served as the consultant for:

- load test shaft planning, construction, and implementation
- use of High Performance Drilled Shaft Concrete (HPDSC)

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