

PROJECT DESCRIPTION

Groundwater Barrier Wall

**Location:**

Pelham Manor,
New York

Client:

Geo-Con Environmental
Barrier Company, LLC

Client Contact:

Mr. Brian Jasperse, P.E.
(412) 856-7700

Specially-equipped Excavator Loading Trench Spoil into a Dump Truck

Geo-Con was engaged to construct a groundwater barrier wall around a former ConEd coal gasification plant site with groundwater contaminated with phenols and other compounds typical of that process. A tributary to Long Island Sound borders the site. The groundwater barrier included a sheet pile wall, a jet grout wall and a cement-bentonite slurry wall that surrounded the site. Plans included excavation of the contaminated soil inside the barrier wall as part of the site remediation.

Geo-Con engaged MMCE to analyze the stability of the slurry trench since plans called for it to be constructed very close to existing buildings. MMCE analyzed the ground conditions and provided recommendations for constructing the barrier wall in the planned locations. The trench stability was affected by a groundwater level a few feet below ground surface and a loose sand deposit. Construction was complicated by the close buildings and a network of buried utilities that paralleled the trench in some locations and crossed it in other locations.