



*Above: Lowering typical upper frame assembly for slurry wall panel. Upper right: Site activity in December, 2002. Lower right: Slurry panel excavation with mechanical clamshell bucket.*



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## Paerdegat Basin Water Quality Facility

Brooklyn, New York

Since 1993, Mueser Rutledge Consulting Engineers (MRCE) has provided services for the upgrade of this facility. Services to date have included:

### Foundation investigation & pumping tests (1993 through 2001)

For the construction of a large underground combined stormwater / sewer storage tank:

- Geotechnical investigation
- foundation design
- pumping test to evaluate effects of dewatering
- comparison of construction dewatering options
- evaluation of tiedown anchors and underdrainage system
- preparation of contract documents for sheeting and shoring and 170 ft deep slurry wall cutoff.

### Deep Slurry Wall Cut-Off (December 2002 to Present)

MRCE is providing Resident Engineering services during construction of the deep slurry wall cutoff. The temporary 200 foot deep wall is being constructed to provide excavation support and groundwater cutoff at the deep depths.

The Slurry Wall design and construction won the 2003 ACEC Diamond Award.

**I**n the 2004 American Council of Engineering Companies-New York Engineering Excellence competition, a Diamond Award (first prize) went to the Paerdegat Basin CSO Facility Slurry Wall project, which was completed by Hazen and Sawyer, along



with geotechnical subconsultant Mueser Rutledge, for the NYC Department of Environmental Protection (DEP). H&S serves as DEP's engineering consultant for the Paerdegat Basin Water Quality Facility in Brooklyn, NY, which will store stormwater runoff and thereby improve water quality in the Basin. Construction of this facility presented a major challenge: how to build 40-foot-deep tanks with foundations of up to 60 feet deep in a densely populated area with a groundwater table only 10 to 15 feet below grade. The solution was the deepest slurry wall cutoff system in the tri-state area, which avoided an estimated \$23 million in impacts to the surrounding community versus use of conventional dewatering.