

BEST OF  
**2008**  
AWARDS

## African Burial Ground National Monument

AWARD OF MERIT: Cultural

In 1991, when human remains were unearthed during excavation for a new federal building in Lower Manhattan, historians quickly realized that the find was one of the most significant archaeological discoveries in American history: it marked the site of the African Burial Grounds, which holds the remains of approximately 20,000 enslaved Africans under six acres stretching from Centre St. to Broadway and from Chamber St. to Duane St.

Construction of the federal building was quickly halted, and the General Services Administration, which was heading the construction, along with the National Park Service, decided to construct a memorial at Duane and Elk Sts. to serve as a marker honoring those buried dating back to the 17th and 18th centuries. Despite the site's relatively small footprint – 15,000 sq ft – construction of the memorial presented challenges unique to New York.

When the project broke ground in February 2006, the construction team, led by New York's Parsons Brinckerhoff as the construction manager, encountered several complications. While during pre-construction the design called for discharging drainage water to an adjacent city sewer, GSA and NPS became wary of finding more remains with any further excavation near the sewer line. A drywell or infiltration system was unsuitable for the site, and as rain water at the excavation site gathered and threatened to saturate the soil strata underneath the memorial, the team quickly designed a system to connect the storm water system from the site to an existing system in the adjacent federal building.

Furthermore, the tie-rods installed to support retaining walls when construction was halted created delicate conditions: before a 2-ton roller compactor



could be used for the backfill, the team installed an eight-in backfill lift above the tie-rods. The team went as far as hand-digging close to the tie-rods and tamping with non-vibratory hand compactors.

Back in 2003, the remains of 419 bodies exhumed during the 1991 excavation were reburied in seven underground crypts. To protect the crypts from storm water during construction, the team put up barriers around the crypts, and dug trenches for the storm water pipes.

Finally, there was the issue of security: located on federal land, the project required background checks for all personnel, advanced notification of deliveries, and systematic security checks, including canine searches, on all trucks entering the project area. Security concerns also led to design changes: a perimeter fence was put up around the planned memorial, and the trees selected for the landscaping had delicate branches to prevent anyone from climbing up to the adjacent air handling units of the nearby federal building.

### Key Players

**Owner:** U.S. General Services Administration and the National Park Service

**Construction Manager:** Parsons Brinckerhoff, New York

**Architect/Engineer:** Aarris Architects, New York

**Landscape Architect:** EKLA, Brooklyn, N.Y.

**Design-Build Consultant:** Robert Silman Associates, New York

**Civil Engineer:** Langan Engineering and Environmental Services, New York

**MEP Engineer:** Marino Gerazounis and Jaffe Associates, New York

Designed by Aarris Architects of New York, the \$5.05 million memorial includes a 24-ft-high granite Ancestral Chamber between two reflecting pools, as well as a circular Libation Court, which features a world map cut into granite, and a spiral Processional Ramp around it.