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Geocomp Corporation



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Grafton, Mass.



Central Artery/Tunnel Project
Boston, Mass.



World Trade Center
New York, N.Y.



CSO Tunnel
N. Dorchester, Mass.



Harvard Allston Science Complex
Allston, Mass.

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CIM Member, Geocomp Corporation of Boxborough, MA shows several projects completed in the Northeast region.

Pleasant Street Bridge, Grafton, MA

For the Pleasant Street Bridge design/build project in Grafton, MA, Geocomp provided foundation designs for the new twin-arch structure. Unique features of the project included horizontal forces greater than vertical forces on the foundations, very deep design scour depths at the foundations, re-use of existing pilings, and very small allowable deflection for the new precast concrete arch sections. The bridge was also to be designed using Load and Resistance Factor Design. Geocomp's engineers used soil interaction methods to optimize the design and allow the design/build team to complete the project in 92 days.

Central Artery Tunnel/Big Dig, Boston, MA

In a joint venture with Brown, the Geocomp-Brown JV team completed a nine year \$10.6M contract with the Mass. Turnpike Authority to provide geotechnical monitoring services for the Central Artery/Tunnel "Big Dig" project in Boston. The geotechnical instrumentation program was invaluable to the success of the CA/T project. During the monitoring period, no significant damage occurred to facilities outside the work area. We attribute this in large part to the use of the data from the instrumentation to keep construction movements within tight tolerances. The Geocomp-Brown J.V. team collected, validated and reported in electronic format 26 million readings from over 4,000 different instruments.

World Trade Center, New York, NY

Part of the World Trade Center's \$1B Transportation Hub project is the underpinning of New York City Transit's No. 1 Train subway box that runs through the center of the site in a north-south direction. The project involved the installation of over 450 mini-piles and jet grout cut-off walls to support the subway box while excavations are conducted below the subway. Geocomp is currently providing geotechnical and structural instrumentation monitoring ensuring the integrity and stability of the subway box and uninterrupted operation of the train during the underpinning and undermining activities.

North Dorchester Bay Combined Sewer Overflow (CSO) Tunnel and Facilities, Boston, MA

Geocomp provided installation and monitoring services for the Massachusetts Water Resources Authority's project to construct a 17-ft. diameter, 2.1-mile long soft ground tunnel in South Boston. This tunnel virtually eliminates combined sewer overflows and storm water discharges to the beaches in South Boston. The tunnel was constructed using a tunnel boring machine (TBM) and was completed in 2009. Geocomp installed borehole extensometers; observation wells; deep bench marks; vibrating wire piezometers; in-place inclinometers; and more than 10,000 feet of surface and building monitoring points. Geocomp collected data from 500 sensors located on the TBM. This data was updated every 3 seconds and processed through Geocomp's iSiteCentral data management system.

Harvard Allston Science Complex, Allston, MA

The Harvard Allston Science Complex required installation of deep, reinforced slurry walls to provide retaining support for a nearly 6-acre area, 48-ft. deep excavation into Boston blue clay. Mass excavation began in May 2008 and an extensive program of tie-back installation at 4 different depths was performed in concert as the excavation progressed. Geocomp was chosen to install, operate and maintain a robust, automated system for monitoring the slurry walls during excavation and to detect effects on the surrounding buildings and services. All of the monitoring data from these different systems were collected and reported through Geocomp's iSiteCentral web-based data management and reporting system and were available to all authorized users, including the construction contractors.

Geocomp helps clients identify and manage risks associated with construction and operation of infrastructure.

Since 1982, Geocomp's experienced teams of engineers and scientists have been solving some of the world's most challenging geo-engineering problems on wide-ranging public and private works projects worldwide. Our areas of specialty include underground engineering for excavations, tunnels, foundations, landfills, levees, dams and other civil works; real-time Web-based monitoring of instrumentation to monitor performance; and laboratory testing of soils, rock, geosynthetics, concrete and other construction materials.

Geocomp has offices in Massachusetts, New York, Georgia and California and provides solutions to clients worldwide. In each of its projects, Geocomp helps clients understand the potential hazards of working below the surface and identify ways to reduce cost and potential damage to property, while increasing safety for the workers and the general public.

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