

Clough Undergraduate Learning Commons

Client:

Georgia Institute of Technology (Georgia Tech)

Location:

Atlanta, GA

Services Provided:

- Installation of automated motorized total stations
- Essential data for assessing deformation/movement

Value Provided:

- Monitoring alerted project team of unacceptable performance during excavation

Background & Project Challenges

In response to the rapid growth of its student body, Georgia Institute of Technology (Georgia Tech) added the Clough Undergraduate Learning Commons (CULC), a 220,000-square-foot facility, a sustainably designed academic building, in the heart of its Atlanta, Georgia campus. The construction of the 5-story building is over an excavation adjacent to the historic Price Gilbert Memorial Library.

Since excavation for the CULC building foundation had to extend below the shallow foundations of the library, the shoring and foundation contractor, required the existing structure and temporary shoring to be monitored during the excavation.



Geocomp Role & Accomplishments

Geocomp monitored the excavation bracing system during the construction. Geocomp installed automated motorized total stations (AMTS) with reflective prism targets to monitor the deflection and settlement of the foundation piles and existing historical library building adjacent to the site. Data were collected around the clock and relayed into Geocomp's *iSiteCentral*[™] system which enabled the foundation contractor access to reports of movements recorded during excavation via the web. Geocomp's real-time performance monitoring included quick notification to site personnel of movement. In this way, the project team was able to manage the risk associated with excavating below existing shallow foundations, and allayed Georgia Tech's concerns of adjacent building settlement.