![Geocomp logo] **Geocomp**
Trusted to help mitigate risk

K.I.P.P. High School Vibration Monitoring

PROJECT PROFILE

CLIENT:
Langan Engineering

LOCATION:
Bronx, NY

VALUE:
- Monitored vibration to minimize damange to adjacent structures during construction

SERVICES PROVIDED:
- Automated crack, tilt and vibration monitoring during construction

- Real-time 24/7 automated data monitoring

"Geocomp provided automated monitoring of the adjacent structure's foundation and North/West facades during excavation and soldier pile driving phases of the project."

GEOTECHNICAL VIBRATION MONITORING

Geocomp provided real-time instrumentation monitoring during construction for Langan Engineering. Geocomp provided automated monitoring of the adjacent structure's foundation and North/West facades during the excavation and soldier pile driving phases of the project. A data logger was setup to remotely send tiltmeter and digital crackmeter data hourly for several months. Also, continuous vibration monitoring of the North and West foundation walls was provided which consisted of auto email alerts to whomever the client requested. Once all data was received, it was displayed and plotted on Geocomp's web-based *i*SiteCentral® system with data reports ready to be delivered upon the client's request. This allowed the client to save money on surveyors and personnel who would have had to manually monitor the tilt, vibration, and existing cracks in the facades in various locations of the adjacent building.

BACKGROUND

The Robin Hood Foundation and the New York City Department of Education partnered to fund the construction of K.I.P.P. High School, a charter school LEED-certified – adding to NYC's growing list of "Green Buildings." The structure's footprint is approximately 132,500 square feet and educates approximately 1,000 students annually. The challenge was how to monitor the tilt, vibration, and existing cracks in the façade of a historic six story church building that was within 50 feet of the construction site. The site posed significant monitoring challenges. Geocomp's real-time performance monitoring had to capture deformation to surrounding historical structures.