Client:
Jacobs Engineering Group

Location:
Mattapan, MA

Value Provided:
• Performed feasibility assessment of foundation reuse for support of the new building
• Identified ground improvement as the most economical and efficient method to control differential settlements between the school and gymnasium buildings
• Evaluated monitoring data for displacement of existing structures to minimize potential impacts during construction

Background & Project Challenges
A new 4-story charter school and gymnasium was constructed in Mattapan, MA. The site is located adjacent to an MBTA commuter rail line bridge and careful consideration of potential impacts to the adjacent structures was required to avoid damage to these sensitive structures. The project involved the demolition of several existing structures, excavation and removal of former building foundations, the demolition of existing retaining walls, deep excavations requiring temporary support of excavation systems, and ground improvement of the area of the proposed gymnasium.

Geocomp Role & Accomplishments
Geocomp was the geotechnical engineer of record for the school construction project. The roles performed by Geocomp on this project included:
• Design, coordination and supervision of an extensive subsurface investigation program
• Geotechnical laboratory testing of collected soil and bedrock samples
• Evaluation of potential impacts to adjacent structures
• Design of an instrumentation monitoring program for protection of adjacent structures
• Assessment of soils beneath a significant portion of the site area and evaluation of potential differential settlements of the school and gymnasium buildings
• Geotechnical recommendations for removal of existing foundations, design and construction of the school and gymnasium, temporary support of excavation requirements, and associated earthworks and dewatering
• Provided geotechnical specifications
• Review of contractor’s submittals
• Field oversight of construction on the new buildings.