



Upper left: St. Augustine Hall. Center: Construction of one of the new dormitories. Lower right: Red Storm Soccer is the first soccer stadium built over a parking garage.

St. John's University - Master Plan Study and New Buildings

Queens, NY

In 1997, Mueser Rutledge Consulting Engineers (MRCE) provided geotechnical consulting services for the development of the St. John's University (SJU) Master Plan. Our work included a review of the SJU archives and implementation of a subsurface investigation, and preparation of a summary report to assist the architect and the University in the siting of new facilities and a ring road. In 1998, MRCE began working as the geotechnical consultant to SJU for final design of all of the proposed new facilities. Buildings to date:

- Mid-rise Dormitories (6 completed between 1999 - 2002; a 7th is in the planning stages)
- Dining hall (completed 1999)
- 2 multi-unit, three-story indoor parking garages (1 completed in 2000; 2nd not started yet)
- Soccer stadium (completed 2002)
- New power substation (completed 2002)
- New church - St. Thomas More (construction began in 2003)
- Multi-purpose Activity Center (to begin in 2003)
- Student center (not started yet)
- Admissions building (status pending)

The SJU campus provides a number of geotechnical engineering challenges. It lies along the terminal moraine, the southernmost advance of the glaciers, which forms the high ridge running east-west through Long Island. Subsurface materials, essentially of glacial origin, comprise a free draining glacial till encountered beneath most of the campus, and a somewhat erratically located finer grained till which tends to drain slowly and is very sensitive to disturbance. Occurrence of the sensitive till tends to correspond to the locations of old glacial ponds shown on historic maps of the area. Prior to SJU development in the 1950s, the campus was a golf course. Significant site regrading occurred during that time including the filling of the ponds which were underlain by organic deposits. The organic deposits and the slow draining glacial till contribute to formation of areas of perched groundwater. In some locations of perched water, the use of timber piles for foundation support has been chosen because of easily disturbed, but not easily dewatered, subgrade materials. For each of the proposed structures, MRCE completed subsurface investigations, provided geotechnical consulting services and foundation recommendations, and prepared summary reports. Specific tasks included a subsurface investigation including borings and test pits, foundation recommendations and a report with construction cost estimates. We have provided controlled inspection of foundation construction for each of the structures completed and inspection of much of the site earthwork.

Date of Completion: (See above)

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