Description

Hospital was constructing an addition to the surgical area with an elevator to the basement. The subsurface conditions on the boring log showed the proposed area was on virgin soils, with a clay base, 8 to 10 blow count material.

Requirements & Challenges

Two problems arose during construction of this project. The contractor began construction and discovered the soil was a fine sand, similar to a beach sand. Thus, they earth shoring was needed around the excavated area. Secondly, Sheet Piling was called out by the Engineer of Record. There was an overhead issue preventing the contractor from using sheet piling.

Helitech was called in on an emergency situation to help solve these perplexing issues.

Solution

Permeation Grouting was used to stabilize the soils temporarily so that a soil nail wall excavation support system could be installed.

Helitech installed two (2) grouted columns, each in one foot diameter, to act as a shoring system to create a safe work environment for the project construction. This process enabled the General Contractor to construct the foundations. Helitech fulfilled the requirements of the Hospital, Engineer of Record, and Contractor.

Results

The results were outstanding. The Permeation portion of the project was completed in 4 days. The Soil Nails were installed in 3 days. Within a week, Helitech had installed an entire shoring system that pleased the Engineer of Record, while providing the owner considerable cost and time savings. The entire project was engineered, approved, and installed in less than 2 weeks’ time.