



Building 11, National Institute of Health Bethesda, MD

Schnabel Foundation Co. was selected as the design-build engineer/contractor for the support of excavation scheme on the National Institute of Health (NIH) Building 11, Phase 2 expansion project located in the Bethesda campus in Maryland. The fifty five foot deep excavation was made through 40 feet of superficial fill/overburden underlain by weathered and disintegrated rock. The excavation and structure support design for this project consisted of drilled soldier beams on-line with prefabricated thru-beam connections and four tiers of tiebacks to support the sheeting on the main Building 11 addition and underpinning of an existing 24 foot wide by 12 foot high utility tunnel spanning 53 feet from north to south across the excavation. Underpinning of this tunnel was a critical aspect of the structure support and involved the installation of 34 inch deep wide flange beams spanning between caissons socketed into rock. Among other critical aspects of the project was locating the tiebacks clear of the forest of utilities and existing support piles surrounding the excavation. Where significant depth of hard bedrock was encountered, piles were drilled using a twenty-four inch down-the-hole hammer from the top of bedrock through pre-installed steel casings set in the soil overburden by conventional earth auguring techniques. The regroutable tiebacks were installed by both cased and open hole drilling methods depending on the existing ground conditions. Currently in progress the NIH Building 11 expansion project is scheduled for completion by the year 2000.

Owner: National Institute of Health
 General Contractor: Bell BCI
 Design-Build Shoring Contractor: Schnabel Foundation Co., Bethesda, MD

<http://www.schnabel.com>

Atlanta
770-971-6455

Boston
508-303-3642

Chicago
847-639-8900

Denver
303-696-7268

Houston
281-531-1103

Orlando
407-566-0199

Philadelphia
610-277-2950

San Francisco
925-947-1881

Washington, DC
301-657-3060