

MIT Sloan School of Management

Cambridge, MA



Owner: Massachusetts Institute of Technology
 Architect: Bruner/Cott Architects and Planners
 Construction Manager: Walsh Brothers, Inc.
 Structural Engineer: LeMessurier Consultants
 Geotechnical Engineer: Haley & Aldrich, Inc.



Introduction

The project is located between Memorial Drive and Main Street in Cambridge, MA. The building is a 7-story building, which, once completed, will be used for academic and students services. The foundation work consisted of the construction of a 30 inch thick slurry wall with corner and cross-lot internal bracing and SBMA tiebacks for open cut construction of the garage structure, which includes 3 levels of underground parking. The slurry wall serves as support of excavation and permanent foundation wall. A 30 inch thick Soldier Pile and Tremie Concrete (SPTC) wall was also constructed for groundwater cut-off and support of excavation.

Main Features

The slurry wall and SPTC wall were constructed through layers of fill, organic deposits, sand and clay. The slurry wall panel layout included several different shapes - straight panels, T-panels, Y-panels, Z-panels and L-panels, which were required to accommodate the foundation layout and the particular design.

The slurry wall excavation encountered timber piles remnant from old foundations in several panels. Several concrete belled caissons were encountered during the excavation of the T-panels along the South slurry wall.

The challenges on this project also included the construction of the slurry wall and SPTC wall around an existing steam line and the close proximity of the MIT campus buildings.

Slurry Wall

Wall length:	1,250 ft
No. of panels:	56
Average depth:	53 ft

SPTC Wall

Wall length:	300 ft
No. of panels:	15
Average depth:	40 ft



The project was completed on time meeting very high quality and safety standards to the client's satisfaction.