The 185 Franklin Street Building is a 22-story steel-framed structure originally built in 1947. A 14-story addition was constructed in 1970. The exterior walls of the original building and the addition consist of solid masonry with a limestone exterior wythe.

When a new tenant agreed to a long-term lease of the 7th through 22nd floors, interior and exterior renovations at the building were authorized. The exterior repairs were to include cleaning of the limestone facade. The interior repairs were to consist of constructing insulated steel stud framed walls on the interior face of the exterior walls. Due to concerns regarding moisture performance of the exterior walls after addition of insulation, the owner’s representative recommended BTC to perform engineering services during these projects.

Prior to implementation of an exterior facade cleaning project, BTC specified a mock-up program to evaluate the effectiveness of alternative cleaning methods and materials. An environmentally friendly and cost-conscious cleaning process using only hot water applied at high pressure was found to yield acceptable results. BTC developed drawings and specifications for this work, and also performed site visits during the cleaning work.

The owner also requested that BTC assess options to improve the resistance of the exterior wall assemblies to condensation and bulk water leakage. In order to assist the owner with this task, BTC performed a review of existing conditions once existing interior wall finishes had been removed. Subsequently, BTC performed hygrothermal analyses of the exterior wall assemblies, and suggested several options for repair. BTC was retained to prepare bidding documents for the perimeter wall insulation and dampproofing repair project. BTC was also retained to perform field observation services during this project.