

CONSTRUCTION COMPANY HEADQUARTERS

BOSTON, MASSACHUSETTS

- OWNER

J&E Building Associates, Inc.

- ARCHITECT

The Architectural Team, Inc.

- GENERAL CONTRACTOR

Suffolk Construction Company, Inc.

PROJECT DESCRIPTION

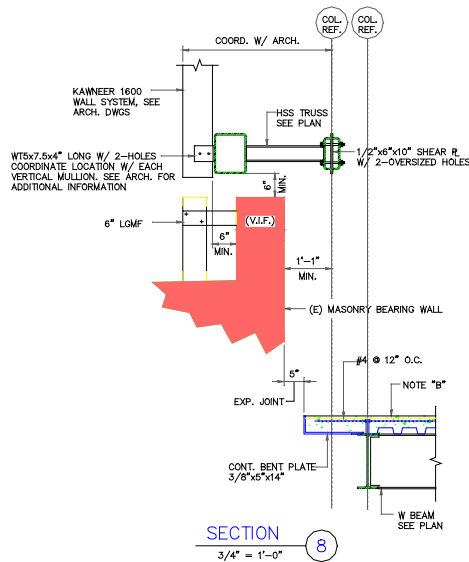


The 50,000 square foot five-story addition is a steel framed structure with composite concrete deck and steel beam construction, while ordinary moment frames of steel provided lateral load resistance. To limit the required structural renovations to the existing three-story turn-of-the-century brick and beam mill building, the new structure was seismically separated. Moment frames were sized not only for strength, but to limit the potential displacement of the new structure and reduce

the size of an unsightly expansion joint between the new and old structures.

Complicating the design from a structural point of view is the five-story atrium at the main entrance. The atrium is located adjacent to the existing building and in the front corner of the new building. This provided an irregularity in the framing and meant that some columns would be as tall as 50 feet without intermediate bracing. Additionally, the architect attempted to match the existing mill building's exterior masonry bearing wall corbels, window arches, and other façade details in forming the new structure of the atrium with standard cavity wall construction. This required close coordination of the structural framing and support requirements to allow the architect the freedom to recreate the complexities of the existing 20-inch masonry bearing wall in a new 4-inch veneer.

As is typical with any fast-track project, numerous items evolved during the course of construction that required quick decisions, designs, details, and drawing turnaround. From a structural point of view, these items included foundation redesigns for existing soil conditions and a tight urban site; veneer type and extent changes; mechanical system changes; phasing of both the new and existing building for each phase of occupancy and renovation; and resolving existing framing problems in the mill building.



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