

The James

New York, NY



Team

Owner:

Brack Capital Real Estate, New York, NY

Architect:

Perkins Eastman Architects, New York, NY

Engineer:

DeSimone Consulting Engineers
New York, NY

General Contractor:

Brack Capital Real Estate, New York, NY

Total Project Cost:

\$30 million

Total Project Size:

102,000 sq ft

Award:

2012 CRSI Award Winner –
Commercial Building Category

Photography:

Sarah Mechling

STRUCTURAL FRAMING SYSTEM

The James is a 255 ft, 18-story hotel in Manhattan. Included in the project are one cellar level, a hung lobby, a rooftop swimming pool, and a thirty-two foot tall exposed precast pergola. The structure below the third floor utilizes architecturally exposed concrete. At the third floor, there is a major transfer of the typical tower columns onto three super columns. Total framed area for the project is approximately 102,000 sf.

The building uses concrete extensively. A normal weight roof transfer slab supports the pool and precast clad pergola. The hotel floors are framed with a modulus controlled lightweight concrete 8" flat slab supported on 9" wide columns. The key structural element is the 3rd floor where East-West beams transfer the hotel columns and suspend the lobby below. These beams frame into exposed girders with three supporting columns. The exposed structure is visible from the terraced restaurant. The façade and pergola is clad with precast.

UNIQUE DESIGN FEATURES

The design features for this building are simultaneously architectural and structural. This is most visible in the exposed transfer beams and super-columns. The initial transfer beam and column layout did not work without exceptional construction measures. After several iterations, we were able to establish a column location and beam geometry that did not require cambering or prestressing. The finish was finalized after the results of a series of mockups provided a cost-effective aesthetically pleasing solution.

A similar process was used for the design of the suspended lobby which is hung from the transferbeams above with rod hangers. The pool is suspended from the roof transfer slab. As additional protection from leaks, a waterproofed slab was cast into the pool support beams.