

# John Hopkins Graduate Student Housing

Baltimore, Maryland

Brad Oliver - Structural



## Project Overview

- Size - 276,000 sq ft
- Construction - Aug '10 - June '12
- Cost - \$44 million (hard costs)
- Contract - Single Prime
- Owner - Education Realty Trust
- Architect - Marks, Thomas Architects
- Contractor - Clark Construction
- Mechanical - BKM

## Architecture -

- Primarily residential use providing 929 rooms for John Hopkins Graduate students
- A 9 and 20 story tower composed of a brick and glass façade with metal panels to provide a modern look
- Accessible green roof terrace on the lower tower



## Structure -

- Typical floor framing is an 8" thick two way post-tensioned slab system
- Deep foundation system consisting of Caissons ranging from 3 to 4.5 feet in diameter
- Ordinary reinforced concrete shear walls used to transfer lateral loads down to the foundation

## Mechanical -

- 5 Air Handling units with an average flow of 4500 cfm
- VAV boxes with electric reheat coils located throughout the building
- Cooling is provided by two 350 ton water cooling towers

## Electrical -

- 2400 Amp 3 phase, 4 wire from utility company for normal 208Y/120V and 480Y/277V systems
- First 8 floors (208Y/120V systems) are serviced separately than the remaining primarily through 1000 amp bus ducts.
- 4000 KW 480Y/277V 3 phase, 4 wire generator for emergency systems on 1<sup>st</sup> floor