

University Medical Center at Princeton

Alexander J Burg – Structural Option

<http://www.engr.psu.edu/ae/thesis/portfolios/2012/AJB449/index.html>

GENERAL INFORMATION

- Construction Cost: \$250 Million
- Building Occupant Name: Business Group B, Institutional Group I-2
- Size (S.F.): 800,000
- Stories Above Grade: 6 Stories
- Delivery Method: Design-Bid-Build

PROJECT TEAM

- Owner: Princeton University
- Construction Manager: Turner Construction
- Architects: HOK & Hiller Architecture
- Structural Engineer: O'Donnell & Naccartato
- MEP Engineer: Birdsall Services Group

STRUCTURAL

- Foundation: Spread footings with load bearing masonry walls
- Superstructure: Steel Framing with composite metal decking
- Lateral Structure: Moment Framing in the East/West Direction & Braced in the North/South Direction Perimeters

M.E.P.

- There are 17 Air Handling Units in UMCP
- Steam humidifiers in patient spaces
- CAV Units in patient's rooms
- VAV Units In every room
- Steam heat supplied by Princeton's Energy Plant

ELECTRICAL

- 13.2 kV electrical service to the building
- Two bus systems, one at 1600 Amp, 3 phase, 4 wires. The other bus is at 1200 Amp, 3 phase, 4 wires
- UMCP runs on a 277/480Volt system

ARCHITECTURE

This six story tall building has a long and curving body that encases the parking lot to draw people into the building. The body is a curtain wall that will provide a view to the outside for all the patients, and it is framed with aluminum reliefs and metal panels. The West and East elevations have a CMU ground face with a brick façade on the top floors.

