

Butler Health System New Inpatient Tower Butler, PA



Courtesy of Turner



Courtesy of Design Group



Architectural Features

- The new Inpatient Tower is separated by floor, in terms of functionality:
 - Ground, 1st Floor- Support Spaces
 - 2nd Floor- Offices, Education, Public Space
 - 3rd-7th Floor- Procedural Spaces
- Façade composed of brick veneer and glazing
- Construction ties into existing, functional hospital

MEP Systems

- All HVAC needs serviced by eight air handling units.
- Variable Air Volume System utilized to control airflow into each space.
- Radiant ceiling panels installed at perimeter of building to reduce heat loss.
- Incoming electrical power provided from existing hospital.
 - Utilizes 480/277V, 3 Phase, 4 wire and 208/120V
 - UPS System employed to minimize power failure
- 85 different luminaires and motion sensor detection
- Wet pipe sprinkler system throughout

Project Overview

| | |
|------------------|-----------------------------|
| Owner: | Butler Healthcare Providers |
| Gen. Contractor: | Turner Construction |
| Owner's Rep.: | Ritter CM |
| Architect: | Design Group |
| Total Height: | 7 Stories |
| Cost: | \$80 Million |
| Size: | 209,678 Square Feet |
| Duration: | September 08'- July 10' |

Structural System

- Foundation system made up of grade beams, drilled piers, and concrete walls
 - Piers embedded over 36" into bedrock
 - Diameter of piers ranges from 30"-78"
- Beams and columns are wide flange
 - Columns mainly W12 and W14
 - Beams mainly W16 and W18
- Beams support metal decking and composite concrete
- Braced frame design accounts for lateral loads

CHRISTOPHER M. DILORENZO

Architectural Engineering | Construction Option

<http://www.engr.psu.edu/ae/thesis/portfolios/2011/cmd5123>