



courtesy of Princeton Healthcare System



## Project Information

Building Name:	University Medical Center of Princeton Replacement Hospital
Location:	Plainsboro, NJ
Building Occupant:	University Medical Center of Princeton
Size:	639,000 square feet
Stories:	6+1
Finish Date:	March 2012
Cost:	\$315 Million
Delivery Type:	Design-Bid-Build

## Primary Project Team

- Architect: RMJM Hillier and HOK in joint venture  
MEP: Syska Hennessy Group, Inc.  
Structure: O'Donnell & Naccarato, Inc.  
Civil: French & Parrello Associates  
Medical Equipment: RTKL Associates Inc.  
Co-gen Plant: NRG Energy Inc.  
GC: Turner Construction

## Architecture

- 269 single patient rooms
- State of the art laboratories, imaging rooms, and operating rooms
- Glass curtain wall on south side
- Brick curtain wall on remaining sides
- Two story concourse entrance
- Horizontal sun shades



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## Electrical

UMCP is supplied with electricity from the Central Utility Plant which receives grid power and generates its own. Power is distributed through the building through 480 volt risers and transformed down to required voltages on each floor.

## Mechanical

- 10 AHUs with 100% outside air to service medical areas
- 7 other AHUs to service rest of building
- 1 MUA to replenish exhausted kitchen air
- The building is provided with 120 psi steam from a central utility plant on site, which is reduced to usable pressures
- The central utility plant also supplies chilled water for cooling
- All AHU use HEPA filters to provide the cleanest air possible

## Structural

UMCP has a steel structure with concrete floors on metal decking. The building is supported on concrete footings while the cast in place basement walls are supported by a strip footing. Particular rooms such as the Linear Accelerator have special design requirements to support the three foot thick lead entraced block and the 9,000 pound door. The building is designed to withstand wind loads of 95 mph and seismic loads of class C.