



Caitlin Behm | Structural Option

General Information

Building Type: Hospital
Building Size: 600,000 SF
Height: 135 ft
Construction: July 2009-July 2012
Cost: \$400 million
Delivery: Design-Bid-Build

Architecture

- 85-bed tower and outpatient center
- Glass curtain walls dominate the majority of the façade.
- Other materials include metal and terracotta panels.
- Main features of the building: curved curtain wall, deep canopies, and green roofs

Structure

- Concrete spread footings placed on improved soils
- Framing system consists of concrete columns and beams
- 12-14" elevated two-way flat slab with drop panels
- Lateral system comprises of shear walls located in elevator core and stairways

MEP

Nemours Children's Hospital as a part of The Nemours Foundation gains power from the Central Energy Plant (CEP) attached to the hospital. The CEP contains the main electrical and mechanical distribution systems, except for the AHUs.

CEP

- Three 1300 ton dual cell cooling towers
- Three 1300 ton centrifugal chillers
- Three water tube boilers
- Main and 15kV chiller source transfer switching
- Four 2250 kW generators

Hospital

- Thirty-two AHUs located on the 1st floor mezzanine or 7th floor mechanical room.
- Mix use of VAV and CV boxes

Project Team

Owner: The Nemours Foundation
CM/GC: Skanska USA Building
Architects: Stanley Beaman & Sears
Perkins + Will
Engineers: (Civil) Harris Civil Engineers
(Structural) Simpson, Gumpertz & Heger
(Landscape Architect) AECOM
(MEP&T) TLC Engineering for Architecture

