

Hauptman-Woodward Medical Research Institute

Buffalo, New York

Project Team:

Owner: Hauptman-Woodward Medical Research Institute, Inc.

Architects/Engineers: Cannon Design

Construction Manager: Ciminell-Cowper, Inc.

Project Scope:

Size: 73, 289 sq. ft.

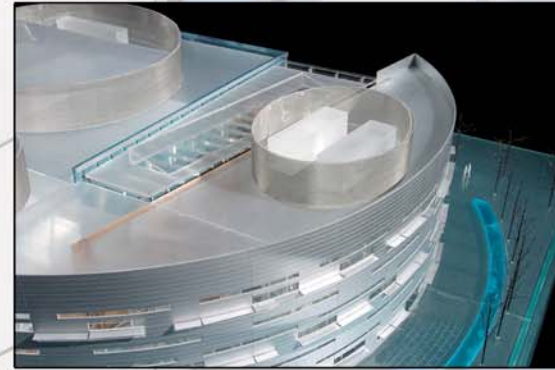
Delivery Method: Cost-Plus

Building Cost: \$24,000,000

Schedule: Jan 2003- May 2005

Function: Biomedical Research Lab

Occupancy: Laboratories, research offices, conference rooms, classrooms and multipurpose gathering spaces



Architecture:

- Striking curved metal panel curtain wall system with varied casement windows and solar shading
- 3-story central atrium with exposed structural system and skylights bridging lab/office spaces
- Isolated laboratory space with interlocking fritted glass wall assembly

Structural System:

- 5" Slab on Grade Construction with 4' poured concrete footings
- Structural steel building skeleton with oversized members for rigidity
- 4.5" Slab on Deck with blended fiber reinforcement for floors 2 and 3, as well as the roof
- King-Post Truss System supports 4" slab on deck and atrium skylights



Mechanical System:

- (1) 300 Ton Air Cooled Screw Chiller provides chilled water for AHU 1&2 cooling coils
- Office/Atrium served by (2) RTU's ducted to VAV boxes with reheat for individual zones
- Laboratory space served by (2) 29,000 CFM dedicated AHU's and exhaust fans with heat recovery coils
- (6) 2,000 MBH Gas-fired modulating hot water boilers provide heat ventilation air and space heat
- Atrium equipped with (4) 42,380 CFM dedicated smoke control ventilation units
- Garage monitored by CO₂ control system and (2) 7850 CFM exhaust fan units

Lighting/Electrical System:

- 480/277V 3 Phase, 4 Wire Primary Service from Transformer
- 120V and 277V Luminaires with a varying fixtures for task and accent lighting.
- 450kW/563kVA Fuel Fired Emergency Generator



Justin Schultz

Mechanical Systems Option

<http://www.arche.psu.edu/thesis/eportfolio/2007/portfolios/jds417/>