City of Hope
Amini Medical Center
Duarte, California

General Building Data

- 3 Story Above Ground Facility
- 59,800 ft²; All New Construction
- Occupancy: Clinic, Lab & Moderate Hazard Storage
- Design-Bid-Build Project Delivery
- Construction Dates: 6/11/07 - 1/22/09
- Attempting LEED Gold Certification

Project Team

- Owner: City of Hope
- Architect & Engineers: EwingCole
- CM & GC: DPR Construction Inc.

Structural

- Steel Frame Construction
- Cast-In-Place Foundation Wall & Spread Footers
- Ground Floor: 6" Concrete Slab on Grade Over 8" Aggregate and Subgrade
- Floors 1-3: 5-1/2" Concrete Slab (115psf) on Composite Metal Deck with Typ. W16x26 Framing
- Roof: 5-1/4" Concrete Slab (115psf) on Composite Metal Deck with Typ. W16x26 Framing

Architecture

- Limestone Veneer and Stucco façade
- Large curtain wall system with 1" vision glass and 1" spandrel glass on North and West exterior walls
- Exterior walls are 1-HR fire rated with 6" Thermafiber insulation; R-3.8/in.
- 6 ft. projecting canopy distinguishes main entrance
- Aluminum air foil sunshades provided above all vision glass
- An elevator and a staircase are provided on both the North and South ends of the building

Electrical

- 12.47 KV Normal Power feeder to 1500 KVA transformer serving the main switchboard
- 2000 Amp Main Power Switchboard with 1126 KVA connected power
- 4160 V Emergency Power feeder to 750 KVA transformer serving Emergency power switchboard
- 1200 Amp Emergency Power Switchboard with 818 KVA connected power
- 4 high voltage panels serving the building; 480/277V
- 18 low voltage panels serving the building: 208/120V
- Remote disconnect provided for roll up generator
- Typ. lighting fixture throughout is a 2x4 recessed troffer with three(3) F32T8 lamps

Mechanical

- Central Campus cooling and heating plants provide chilled water and high pressure steam to serve the facility
- Two(2) 20 HP pumps (one stand-by) distribute 42F chilled water to 5 Custom Rooftop Air Handling Units and 9 Fan Coil Units for cooling
- Three(3) rooftop Air Handlers provide 1483 MBH cooling for Lab and Office spaces on the first two floors
- Nine(9) fan coil units provide 360 MBH cooling to computer/mech. rooms and other specialty rooms
- Two(2) pressure reducing stations convert 6020 lbs/hr of high pressure steam to low pressure steam
- A 1768 MBH heat exchanger on the roof converts low pressure steam to 160 F hot water for the building
- CV and VAV terminal units control quantity of air to occupied spaces

PENNSTATE 1855

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http://www.engr.psu.edu/ae/thesis/portfolios/2009/cdb162/index.htm