

City Hospital - Phase I

S.E. Pennsylvania

Project Team

Owner: City Hospital

Construction Manager: Turner Construction

Architect: Ballinger

Civil Engineer: Pennoni Associates

Structural Engineer: LeMessurier Consultants

MEP Engineers: BR+A Consulting Engineers

General Building Data

Size: 300,000 SF

Levels (Below/Total): 3 / 4 Stories

Construction Dates: Mar. 05—Dec. 07 (est.)

Delivery Method: CM @ Risk

Building Cost: \$ 156 Million



Mechanical Systems

- (4) 100,000 CFM Air Handling Units with Variable Frequency Drives
- (2) 120,000 CFM Exhaust Air Handling Units with Variable Frequency Drive & Heat Recovery
- (1) 2,000 ton Steam Turbine Chiller
(1) 2,000 ton Electrical Chiller
- (4) 1,000 ton Cooling Towers with Variable Frequency Drive
- (4) 800 HP Dual Fuel Boilers with Variable Frequency Drive



Architecture

Four-level “L” shaped structure with three levels located below grade. It contains administration spaces, research facility and a central utility plant. Above ground constructions will occur in phases, and the campus will have more than 1 million square feet of research space, clinical offices, and parking spaces upon completion. The project is expected to receive LEED Silver Certification.

Electrical / Lighting

Structural Systems

- Shallow Spread Footing Foundation
- Steel Frame with Concrete Shear Walls
- Integrated Foundation Wall and Structural Frame System
- Composite Construction Floor System

- (2) 13.2 KV Primary Service Feeds
- (3) 5,000 KVA Substations with Tie-Breakers
- (2) 2,000 kW Emergency Generators
- 480/277 and 208/120 Distribution Voltage
- Fluorescent Light Illumination System

William K. Tang
Mechanical Option

<http://www.arche.psu.edu/thesis/portfolios/2008/kzd108>