



Justin Mulhollan

Mechanical Option

Margaret M. Alkek Building for Biomedical Research

Baylor College of Medicine

One Baylor Plaza

Houston, TX

Construction

- Design-bid-build
- Construction Dates: October 2005 - Late 2007
- Ground Breaking: September 15, 2005
- Construction Cost: \$75,000,000
- Total Project Cost: \$110,000,000 (approx)

Architecture

- 8 Stories, 200,000 gsf Research Tower
- 5 levels of research laboratories & office space
- 2 levels of animal research facilities
- 1 level for mechanical systems
- Curtain wall facade

Project Team

- Owner: Baylor College of Medicine
- Owner Representative: Fluor Enterprises, Inc.
- Architect: Lord, Aeck & Sargent, Inc.
- Construction Manager: Vaughn Construction
- MEP: Bard, Rao + Athanas Consulting Engineers, LLC.
- Structural Engineers: Walter P. Moore
- Curtain Wall Consultant: Curtain Wall Design and Consulting, Inc.

Mechanical

- Campus chilled water and steam utilized
- 1300 ton centrifugal chiller replacing existing 800 ton chiller
- Heat Exchangers used to create building chilled water and steam from campus loops
- 12 packaged air handling units
- CV Laboratory & research spaces, while office space is VAV

Structural

- Built ontop of existing subteranean research facility
- Steel frame construction
- 3" 20g composite deck
- 3 1/2" lightweight concrete slab

Electrical

- Double Ended Unit Substation feeds tower & existing subterranean facility
- Substation rated 4.16 kV primary - 277/480V, 3-phase, 4 wire, 60hz secondary
- 480 to 208/120V stepdown transformer on each lab floor
- 1500 kW Emergency Generator supplied by 8000 gallon fuel oil tank to be installed

