



The Methodist Hospital Research Institute Houston, Texas

Project Team

Project Manager:

Jacobs Facilities, Inc.

Architects:

WHR Architects Inc.

Lead Architect

KPF Associates PC

Building & Interior Spaces

Architect

CO Architects

Level 5 Architect

Structural Engineer:

Haynes Whaley Associates

MEP Engineer:

Affiliated Engineers, Inc.

Data, Voice, & A/V Engineer:

DataCom Design Group

Civil Engineer:

Walter P. Moore

Lab Planners:

GPR/Jacobs Consultancy

Landscape Architect:

Kudela & Weinheimer

RESEARCH INSTITUTE FACILITIES

- High-end conference room & assembly spaces, all complete with video conferencing capabilities
- State of the art interchangeable animal & human imaging modalities, including PET/CT, SPECT/CT and 3.0T MRI
- MITIE premiere surgical training facility, including several fully functional operating rooms, da Vinci robots, 15 individual training stations & the A/V equipment to broadcast training world wide
- 2 full floors, approximately 70,000 SF, of animal Vivarium with ABSL & BSL3 facilities for infectious disease research
- 2 full floors, approximately 70,000 SF, of open lab space
- (cGMP) Current Good Manufacturing Practices as defined by the FDA, facility to prepare clinical-grade biological agents and small molecules
- Cyclotron & hot cell laboratory in basement to facilitate the creation and manipulation of isotopes for use in both research and manufacturing

PROJECT INFORMATION

- 439,000 Sqft cast-in-place concrete research & manufacturing facility
- Total project cost: 230 million dollars
- Total construction cost: 180 million dollars
- 12 story building with basement & 4 mezzanine floors for MEP services
- Construction started November 6, 2006
- Completion in October 2010
- Project was divided into 10 phases including demolition of existing facilities, relocation of existing utilities, foundation & superstructure, core & shell & buildout, & expansion for existing cafeteria including outside café terrace
- Utilized 3-D BIM technology for MEP coordination throughout design
- Coordination of MEP trades took 18 months to complete
- 40% of the total contract budget was dedicated to the highly technical MEP requirements
- Building includes point-supported glass façade supported by hanging mullions from Level 3



Harvey Team

Vice President:

Lohn Zylicz

Senior Project Managers:

Dan Dennehy

Brad Williams

Senior Superintendents:

Spence Cates

Lead Superintendent

Sam Centilli

Levels 3, 4, 12, Roof & Cyclotron

Superintendents:

Glenn McIntire

Level 5, MEP Coordination, & assist Spence and Asst. Supts

Bo Durr

Building Vertical Systems

Assistant Superintendents:

Justin Hodges

Basement, Level 2 & 8-11

Patrick Amalfi

Levels 1, 6, 7 & Cafeteria

John Amalfi

Bldg. Structure, Site Work, Curtain wall, Novum Point-Supported Glass, Roof & Elevators

Erik Silvey

Precast Erection & Cafeteria

Project Managers:

Eric Hoffman

MEP Administration, Billings & Change Proposals

Brett Priest

Exterior Facades, Stonework, Terrazzo, Level 1 & Cafeteria

Matt Coscio

Site Work, Permits, Metals, Structure, & Level 4

Assistant Project Managers:

Kyle Hess

MEP Coordination (BIM) & Cx

Corey Anders

Interior Finishes, Doors/Frames/ Hardware, RF & Radiation Shielding, Basement & Level 5

Jason Hogue

Millwork, Interior Glass, Specialties, Levels 2, 6 & 7

Amanda Coe

P.Lam & Lab Casework, Equipment Coordination, Schedule, & Level 3

Field Office Manager:

Melissa Wemigwans

Project Assistant:

Diana Mauldin

HARVEY
Innovation. Quality. Integrity

PROJECT STATISTICS TO DATE:

- 1,204 days
- Almost 3,000 drawings issued
- 98 drawing revisions issued
- 1,385 RFIs written
- 3,850 submittals
- 3,500 people have worked on site with an average of 400 per day
- 1,307,940 man-hours
- 600 commissioning tests completed with 1,520 to go
- 2,200 activity schedule

PROJECT CHALLENGES:

- Extremely confined site with very limited lay down area which forced us to place the tower cranes inside the foot print of our building
- Project borders two active hospital buildings
- Projected design was being completed as building was already under construction
- Renovations inside the existing hospital which consisted of 7,000 sqft had to be broken into 38 phases to facilitate extremely limited swing space for hospital staff
- Existing site utility drawings did not exist, therefore utilities had to be coordinated and re-located as they were found
- Had to re-route existing 30" chilled water lines without disruption of service and then build structure around them
- Foundation consisted of both a mat and spread footings due to the re-location of the existing duct bank which included 3 separate feeds that serve an active hospital
- Structure was atypical with varying floor to floor heights, structural member sizes & special framing for heavy medical equipment
- Sections of precast had to be installed at night over adjacent working hospital and often out of sequence
- Precast panels weighed up to 15,000 lbs and in some cases had to be re-designed due to the limitations of the tower crane capacity
- Curtain wall included abnormally large glass panels weighing up to 700 lbs
- The cyclotron weighed 45,000 lbs and required special rigging to set it in its final location in the basement
- Large autoclaves had to be delivered over a year ahead of schedule so that the tower cranes could be used for installation
- Each of the 9 custom air handlers had to be delivered in 5 sections, each section measuring over 10' x 10' x 8' and assembled on site
- MEP coordination was taking place before the design of the systems was finalized requiring multiple revisions to shop drawings and some work that was already installed
- Methodist has requested early occupancy of several floors requiring an acceleration of the schedule and finalizing core & shell systems much earlier than originally anticipated
- Sequence of operations for most building systems have been changed 3+ times, the latest change occurring on January 12, 2010, which required the BAS System programming to be changed, narrowing our window of internal testing
- The 227 seat auditorium presented unique coordination opportunities as all A/V, lighting, sound & life safety devices had to be centered in Brochstein's wood panels