BEST OF 2008 AWARDS

Michael F. Price Center

Project of the Year: Health Care/Hospital

The $200 million Michael F. Price Center for Genetic and Translational Medicine and the Harold and Muriel Block Research Pavilion at the Albert Einstein College of Medicine of Yeshiva University in the Bronx features the latest technologies and should help attract top scientists who will advance biomedical and genetic knowledge.

"They wanted it elegant and high end," says Richard Wolkowitz, vice president and project director for Tishman Construction Corp. of New York. "Everybody is trying to attract the best talent."

Tishman broke ground on the 223,000-sq-ft project in October 2004 and completed it on time in January. Scientist move-in began in June.

"I have it down as an A+," said one judge. "Really visually, it is very attractive and very functional."

The five-story center includes more than 40 fully equipped laboratories with mahogany furniture; a biosafety level 3 laboratory, used to handle more virulent pathogens; 25,000-sq-ft basement vivarium; common spaces to facilitate collaboration; and 107-seat auditorium.

The reinforced concrete-frame building sits on a concrete foundation on bedrock. During excavation, Tishman found different levels of rock and a stream running through the site, necessitating a redesign to incorporate a pumping station to collect water around the perimeter and under the basement and shift it to onsite concrete settlement tanks.

"Water permeation would be disastrous" to some of the extremely valuable mice that "have been bred to have certain characteristics," Wolkowitz says. The basement is one of the most interesting aspects of the building. It features stringent air control, separate clean and dirty elevators and corridors, and cage- and glass-wash facilities.

"The air is more pressurized on the clean side, so you never have air from the dirty side coming into the clean side," Wolkowitz says. "The animal holding areas are neutral, and the dirty corridors are negative, so the air constantly flows from the clean to the dirty."

The mechanical, electrical and plumbing design for the entire building provides that labs remain separate from each other to avoid cross-contamination. A digitally controlled air-distribution system monitors more than 11,000 points

Key Players

Owner: Albert Einstein College of Medicine, Bronx

Construction Manager: Tishman Construction Corp., New York , N.Y.

Owner's Representative: Granary Associates, New York, N.Y.

Architect: Payette Associates, Boston, Mass.

Structural and Civil Engineer: Weidlinger Associates, Cambridge, Mass.

MEP Consultants: Flack & Kurtz, New York, N.Y.

Concrete Contractor: Interstate Industrial, Clifton, N.J.

Steel Contractor: Empire City Ironworks Specialties Corp., Long Island City, N.Y.

Plumbing: Cardoza Plumbing, Westbury, N.Y.

Electrical: Petrocelli Electric Co., Long Island City, N.Y.

HVAC Contractors: Center Sheet Metal, Bronx, and F.W. Sims, West Babylon, N.Y.

Building Management & Control System: Siemens Building Technologies, Pine Brook, N.J.

and responds within seconds to changes in temperature and air flow.

"All of the air circulated into the spaces is 100% outside air," Wolkowitz says. "To reduce the energy load to do that, because of air-conditioning and heating requirements, the air-supply system uses a heat-wheel technology, which is a large rotation heat foil."

Each of the eight air-handling units has a 7-ft heat wheel. It recovers heat from the exhausted air and preheats the air coming in from the outside. And in the summer, it recovers cool air and prechills the incoming air.

Tishman installed the eight, prefabricated air handlers and two diesel emergency generators on the top of the building, four on each wing, and then built the structural-steel frame around them.

"There is a lot of redundancy in the building," Wolkowitz says. "People are doing experiments in these laboratories and may have years of work that cannot afford to be interrupted or compromised."

Each wing can operate with only three of the four air handlers, and ductwork will allow one side to assume the load from the other wing. Large batteries pick up any slack for the few seconds between when power goes out and generators start up, Wolkowitz says.

The building's exterior has a Pilkington planar mullionless glass-wall system in the center section and granite on the balance. Tishman suggested producing the granite walls offsite, using a steel-truss system. The panels were hauled to the site and erected with a crane.

"It's good for quality control and speed of erection, and it saves money because the labor is done in a factory," Wolkowitz says.