

## New York Presbyterian's New Heart Center: A Beacon of Light to Patients



It was a non site – a sloping patch of land between two existing buildings, with an enormous rock right in the middle of it.

Now, it is the \$125 million New York Presbyterian Vivian and Seymour Milstein Family Heart Center, a 165,000 sq ft LEED Gold certified facility that delivers state-of-the-art care in a building that evokes the peacefulness of the Hudson River just beyond its glass curtainwall.

Clearly when the neighboring Milstein Hospital Building at 165th Street and the Herbert Irving Pavilion were built more than 30 years ago, no one ever imagined that the institution would build between them. “What you had back then between buildings was space,” said Ian Bader, partner, Pei Cobb Freed & Partners, New York, N.Y., the design architect for the center.

But now, with the new facility’s graceful curving glass climate wall, the complex has a new centerpiece that con-

nects visitors to the natural environment around them and connects services of the three buildings.

Clearing the site for the new building was a major challenge, said Adam D’Auguste, vice president, Bovis Lend Lease, New York, N.Y., the construction manager for the project.

“I joked with our excavation contractor that they left the big rock on the site on purpose 35 years ago when they built the Milstein building just so they could come back again and get another job out of it,” D’Auguste said.

The team started with blasting to get the rock out, but as they got closer to the existing buildings, they started chopping. The Manhattan schist in this area of the island is extremely hard, D’Auguste said. “It’s one of the oldest exposed areas in Manhattan.”

Because the site is on a hill, there are two main entrances, and each is at

The graceful curving glass climate wall connects visitors to the natural environment around them and connects the services of the three buildings.

PHOTOS BY PAUL WARCHOL PHOTOGRAPHY

### PROJECT TEAM:

**Owner:** New York-Presbyterian Hospital

**Owner’s Rep.:** Peter Romano and Co.

**Architect:** Pei Cobb Freed & Partners

**Associate Architect-Medical Planners:** DaSilva and Associates

**NYSERDA Agent, Sustainability**

**Consultant, Commissioning Authority:**

EME Group

**Structural Engineer:** Thornton Tomasetti

**Civil Engineer:** Mueser Rutledge

**MEP Engineer:** Syska Hennessy Group

**Construction Manager:** Bovis Lend Lease

**Structural Steel:** Cives Steel

**Concrete:** Civetta Cousins

**HVAC Trade Manager:** KSW Mechanical



Patients will receive the highest caliber of care with state-of-the-art technology on every floor. The waiting room will connect patients with the natural environment with its floor to ceiling glass and the expansive views. PHOTOS BY PAUL WARCHOL PHOTOGRAPHY

a street level grade. But in plan, each entrance is on a different level, Bader said. Considered the main entrance from Fort Washington Avenue, a monumental curved stone wall guides the visitor through a transparent glass façade into the 30 ft high entrance lobby. Rising from the lobby, a broad curving ramp guides the visitor to the atrium space, Bader said.

The entrance from 165th Street is through a landscaped arrival court under an inclined glass canopy. The curving glass climate wall with its pre-tensioned cable structure and shifting louvers is visible overhead.

The climate wall is designed to admit a maximum of natural light into the facility's main waiting room. In addition, it protects the interior from too much heat in the summer or, in the winter, too much heat loss. There is a 3-ft cavity between the double layers of glass that allows for this climate accommodation, Bader said.

The computer-controlled system allows exhaust air from the building, which in the summer is still cooler than the air outside, to be conducted up through the 3-ft cavity and released at

the top. In the winter, the amount of air being released is restricted so that this cavity acts as an insulating blanket for the interior. In this way a temperate internal environment is maintained and the exterior façade is constantly changing, Bader said.

The climate wall may be one of the first installed in the United States, said D'Auguste. The installation was a challenge, as it is post-tensioned and it was critical to get it weather tight first. The curvature of the wall system proved difficult to line up the spider clips, he added. Each clip had to be surveyed to "line up every clip on every wall with every angle."

Tying the new structure in at every floor of the Milstein and the Irving buildings was also a challenge for the team. Since the floor plates of the new center aligned more directly to the Milstein building, the connection to the Irving building needed to be more accommodating. Pei Cobb Freed & Partners made the connection via glass-floored bridges over the atrium space.

The connections to both buildings required the construction diligence to seal off work areas and guard against

dust getting into the existing buildings. At one point a steel beam had to be slid into the seventh floor of the Milstein building, and when it was complete, the hospital staff didn't even know it was done, D'Auguste said.

"All work within the facility required intense and constant communication among all team members. If a doctor needed us to stop work, we stopped," he said. "There was no after hours to work, because it's a 24/7 environment. We had to accommodate the care of the patients first and foremost."

The team also worked together diligently toward a common goal of LEED goal certification, which was granted earlier this year. About 90 percent of construction waste was reused or recycled on the project, avoiding landfills, D'Auguste said. In addition, the use of recycled building materials including sheetrock, steel, aluminum, acoustic ceilings and more reduced the environmental impact of the new building.

"It was a major effort by the entire team," Bader said. The commitment came right from the top, and went to every member of the design and construction team. ♦