



In a Class of its own: Aluminum-Sheathed 12-Story Towers

Unique Bond Forged Between Crew and Patients



ALuminum Extrusion

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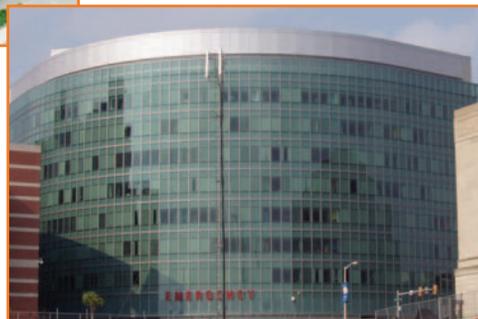
IN A CLASS OF ITS OWN

ALUMINUM-SHEATHED 12-STORY SOUTH TOWER EARNS HIGHEST MARKS FOR PEDIATRIC HOSPITAL ENVIRONMENT

ALUMINUM EXTRUSIONS PLANNED FOR NEXT TWO PHASES OF \$650 MILLION EXPANSION PROJECT



*Splendor in the Structure:
Architectural Rendering Transforms
Nation's Oldest Children's Hospital
into Futuristic Medical Facility.*



*Silver Tower Shines Vision of New
Possibilities for Pediatric Hospital.*

You can't miss it: a gleaming monolith that looms over all other buildings at the gateway to the Children's Hospital of Philadelphia, the nation's oldest and largest pediatric hospital.

The bold structure is a testament to the splendor that can be achieved from the effective use of a unitized aluminum curtain wall. The 12-story, 310,000-square-foot South Tower building and first phase of a \$650 million expansion project gives patients, visitors and medical staff a different look throughout the workday, depending on the sun's position and the presence or absence of clouds. This state-of-the-art South Tower expands the hospital with its curved painted silver expanse of curtain wall, designed by the New York-based architect firm Kohn Pedersen Fox. The tower's 13-foot-4-inch floor-to-floor dimensions were accommodated with an 18-foot maximum depth steel-composite beam framing. The hundreds of thousands of feet of aluminum were extruded by Keymark Corporation of Fonda, NY, and assembled by the National Glass and Metal Co., Inc., of Horsham, PA.

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Aluminum extrusions at the forefront as the existing nine-story glass structure is "reclad" with aluminum extrusions.

Image and presence are important to the building's developer, L.F. Driscoll Company, of Philadelphia. They encouraged the architects to pursue a design that connects to the existing hospital via a new atrium, requiring construction crews to fill framing over the hospital's original stair-stepped configuration. The result: a 12-story, 310,000-square-foot curtain-walled ellipsis. The curtain wall is custom extruded, serving as an integral part of the hospital's largest and most ambitious expansion and renovation projects, nearly doubling its size in order to meet the growing demand for inpatient and outpatient care.

The next two phases of the \$650 million expansion also position aluminum extrusions at the forefront: The existing metal and glass frame of the nine-story hospital building will be "reclad" with aluminum extrusions. The construction later this year of a second 12-story building will be a twin to the South Tower, again using extruded aluminum for the entire framing of the building, according to Walt Cichonski, Director of Fenestration for L.F. Driscoll Co., which has been working on construction projects at the hospital non-stop for the last 17 years.

"We chose aluminum extrusions for these projects because of the ease of framing, and because it was more economically feasible than steel," says Cichonski. "We used aluminum in the building for its durability and high degree of quality control."

"The dynamic shape of this building is meant to evoke forward progress, which is the perfect metaphor for its prominent position at the hospital," adds Pamela O'Malley, Senior Project Manager for the Children's Hospital facilities department. Both architect and owner wanted a "clean, modern, well-designed" look for the building, notes curtain wall expert Cichonski.



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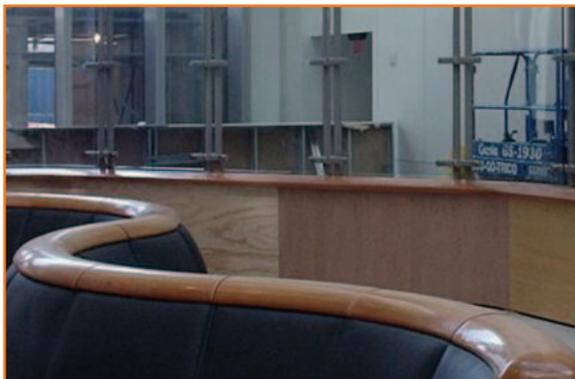
They selected a unitized curtain wall system to achieve that goal. Plate aluminum was the only material that would achieve the flatness desired.

Because of the building's unique shape, a model was tested extensively in a wind tunnel under a variety of conditions, including a 75 mile-per-hour rain-accompanied wind. Cichonski oversaw the testing, which showed the building's performance on wind load at 20 percent efficiency over standard building code.

“Considerable effort was undertaken to ensure the curtain wall—fully unitized, pressure equalized, and double chambered—was airtight and energy-efficient,” O’Malley emphasizes.



Rooms With a View: The final look for the interior became an architectural and aesthetic showpiece.



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ALUMINUM CURTAIN WALL CARRIES TESTAMENT TO UNIQUE BOND FORGED BETWEEN CONSTRUCTION CREW AND PATIENTS

Michael “Mike” Mitchell was in first grade and just beginning to make new buddies on the school playground, when he was diagnosed with acute lymphocytic leukemia. For five months, doctors at The Children’s Hospital of Philadelphia waged war against the grapefruit-sized tumors that had invaded his body and were growing fast.



But the then seven-year-old did what kids often do, found creative ways to stave off the day-to-day monotony of a sterile medical environment and the excruciating pain of his illness. His explorations led him to his hospital room window.

That was January 2001. That same month, Richard Ritchie, an East Falls, Philadelphia construction worker, was starting a new job—construction of a new 12-story tower just outside Michael’s third-floor window.

Ritchie says he’ll never forget his first day on the job. “I looked up and saw this kid with no hair and his face up to the window, and I just remember thinking something about him was very special,” says the father of three. “I just kept thinking, that poor little kid, he must be really, really sick. I waved and he smiled this huge smile and waved back.”

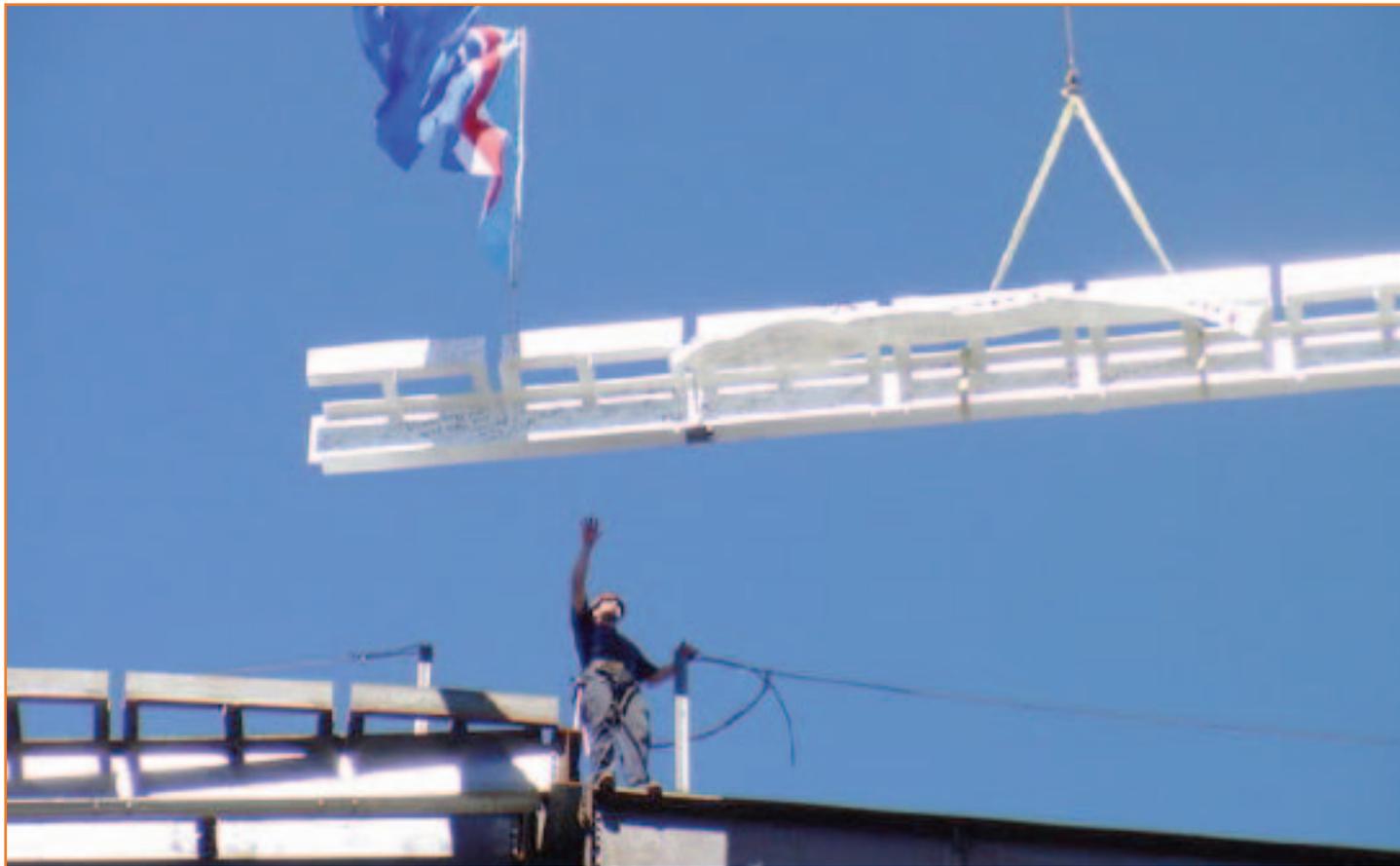
Friends at First Sight: “I waved and he smiled this huge smile and waved back.”

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Throughout the winter and spring, one thing remained constant: Mike standing at the window watching as the aluminum extruded curtain wall was erected. Soon, he began coloring signs and holding up these messages to Ritchie and the dozens of workers on his crew. "Hi, I'm Mike." And, the construction crew started writing back.

Mom Cindy Osting says: "Every day, these guys in hard hats would be there waving at him and cheering him on." Then, there was the day when the third floor was constructed and Ritchie jumped across between the buildings, tapped on Mike's window, and the two had their first window-side chat.



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Friends Forever: Michael certainly has something to smile about as he is now in complete remission and was reunited recently with his construction buddies—Ritchie Rich (on right) and Brian McMullen (in bandanna on left).

Their friendship became the buzz of the hospital. As the 10 floors stacked up, so did the numbers of window-side viewers. Hospital administrators embraced the friendships. They forged official ties by staging construction worker-led tours of the new facility for the kids. Construction workers held a “signing” on the curtain wall, where the crews spray painted the names of Mike and dozens of kids with the message “get well.” An official design committee was formed for the children to share their input on design for the 146 private rooms under construction for the new tower.

“You don’t find heart-warming and special situations like this very often in the construction industry,” says the hospital’s O’Malley.

Adds Driscoll’s Cichonski: “It really gets to you. You get in an elevator trying to do some construction thing and there is a child on a stretcher. It snaps you into the reality of what you are doing, and that it really does have meaning.”

“Ironically, we were trying to do everything we could to minimize the stress of the construction on the children, and then we see them all there plastered to their windows and fascinated by the whole process,” says John McDonough, vice-president of Children’s Hospital.



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Kid Cool: Kid-designed patient rooms have all the perks, from DVD players to computer hookups.



The result of patient-inspired construction ideas: Today, new rooms all have DVD players, computer hook-ups and laminated walls, so the kids can bring in their own posters to decorate. Sleeper sofas for parents are in every room. Cafeterias are located on floors far away from patient rooms, so children nauseated from chemotherapy don't have to smell meals being cooked. Phones are located just outside patient rooms, so parents can call other family members away from the ears of anxious patients; and playrooms for siblings are on every floor.

Ritchie affirms, "Mike changed the course of my life. Let's just say I was a real tough guy with not a lot of compassion. But, I'd look forward to seeing this kid every day waving at me and smiling and excited about our construction. I

realize anything can happen to you at any time. I look at life completely differently now, thanks to him."

Today, Mike is a 10-year-old fourth grader in complete remission from the cancer.

"I'm going to be a construction worker when I grow up!"

If you have an application story to share, email the Showcase staff at: mail@aec.org



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