Correction

The Project Spotlight for Miller Park in the profile article on Thornton-Tomasetti in the Winter 2008 issue of *Ascent* omitted the credit for the precast concrete specialty engineer for the architectural panels used on the Milwaukee stadium. That work was performed by **Precast Engineering Co.** in Waukesha, Wisconsin.

High Concrete's new maintenance building, which was designed to qualify for a Silver LEED rating, features the company's precast concrete architectural panels for its cladding.

High Concrete's Building Goes Green

DENVER, PENNSYLVANIA

High Concrete Group LLC is completing construction on a maintenance building at its plant that will incorporate sustainable-design concepts to achieve Silver certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. The single-story, 16,000-sq-ft building, with a 2,300-sq-ft mezzanine, features the company's precast concrete architectural panels as a key component.

The panels incorporate two colors of cement with a combination of light and heavy sandblasted finishes, coupled with an intricate reveal pattern, according to Francis S. Fox, president of **Greenfield Architects Ltd.**, who designed the facility. The insulated CarbonCast panels, which offer an R-value of 24, increase durability and thermal efficiency and provide a variety of other benefits, he notes. They incorporate concrete that includes locally harvested sand, cement, and aggregates and feature recycled materials such as fly ash and recycled water to aid in meeting LEED credit requirements.

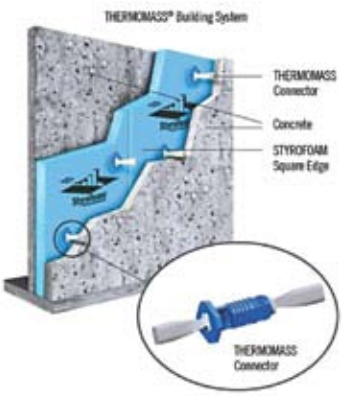
Precast concrete tees are also being used for roofing, and they will feature 8 in. of insulation to achieve an R-value of 40.

A design-build process is being used to construct the project. "Having all team members—architect, engineers, manufacturers, and constructors—on board from the start helps facilitate and optimize the process to ensure a successful outcome," says Fox. "It aids in the evaluation of different systems, cost impacts, and the viability of meeting the credit criteria."

The team comprises MEP contractor Consolidated Engineers, structural engineer Raudenbush Engineering, civil/land-development engineer J. Michael Brill & Associates, commissioning agent Eastern Air Balance, and contractor High Construction Co.

Other sustainable-design concepts used in the project to earn LEED points include:

- Reducing water consumption by 20% using special faucets on lavatories, showers, and low-flow, double-flush toilets.
- Reducing energy costs an estimated 24.5% throughout the building.
- Beginning the commissioning process early in the design phase.
- Recycling and redirecting construction and demolition debris.
- Using certified wood products where applicable.
- Developing a plan for indoor air-quality management prior to occupancy.
- Using a variety of low-VOC materials.
- Using system controls to promote comfortable lighting levels.
- Integrating skylights, windows, and vision panels.



IPC has introduced the "2030 Panel" to improve energy efficiency in its insulated sandwich wall panel.

IPC Introduces High-Performance Panel

DES MOINES, IOWA

IPC Inc. has redesigned its standard architectural precast concrete wall panels to offer a high-performance version dubbed the "2030 Panel." The name references the 2030 Challenge issued by Architecture 2030 founder Ed Mazria and adopted by the American Institute of Architects and the U.S. Conference of Mayors.

The company is working with **Composite Technologies Corp.** of Boone, Iowa, which manufactures and distributes Thermomass Building Insulation Systems. IPC's panels will incorporate the system's fiber-composite connectors, which can eliminate thermal bridges and prevent vapor transfer and thermal leakage. The combination of the connectors and the panels' sandwich design, which includes a core composed of Dow Styrofoam brand polystyrene insulation, can reduce a building's energy cost by as much as 50%.

High Concrete to Make New Truss System

DENVER, PENNSYLVANIA

High Concrete Group LLC has gained exclusive rights to manufacture and sell the patented ER-Post precast concrete truss system in its territories in the Midwest, Northeast, and Mid-Atlantic regions.

The trusses span approximately 70 ft and are spaced at 40 ft on-center, allowing for large bays that are particularly suited for mixed-use residential buildings with parking underneath, the company says. Alternate levels require no structural elements, allowing flexibility in layout of interior walls and partitions. The truss bottom chord supports the floor below, while the truss top chord supports the open floor above.

Oldcastle Supplies Components for Prison

TELFORD, PENNSYLVANIA

Oldcastle Precast Modular Group is fabricating, outfitting, and erecting 864 precast concrete cell modules for a $230-million federal correctional institution being constructed in Berlin, New Hampshire. The facility comprises six housing units, administrative offices, and recreational space as well as healthcare, educational, and food-service facilities. It will house 1,280 inmates.

The Federal Bureau of Prisons awarded the design-build contract for the medium-security institution to Bell Constructors Inc. and Heery Construction Co., a joint venture in New York. **Edward Rowse Architects** of Providence, Rhode Island, in association with **KMD Architects** of San Francisco, California, is the architect of record.

Erection of the cells is to begin in July, with the project expected to take 37 months to complete.

Dukane Aids Green School Design

NAPERVILLE, ILLINOIS

North Central College has begun construction on a 198,000-sq-ft dormitory that has been designed to achieve a silver LEED rating. The specifications feature precast concrete wall panels and flooring units produced by **Dukane Precast Inc.**

The use of locally produced precast concrete materials will be a key aspect of achieving the certification, a spokesman for the college said. Other sustainable aspects include installation of a green roof, geothermal HVAC systems, and recycled materials.

The wall and flooring components will use Dukane's double-wall panel technology. Wall panels typically are 8 in. thick, comprising two $2^{3}/_{8}$-in. wythes of concrete and a $3^{1}/_{4}$-in. layer of insulation. Flooring panels typically are 10 in. thick with spans up to 30 ft in length possible. The bottom wythe of the double-wall floor panel is prestressed to achieve the span length and surface quality.

The center will house 265 students and will wrap around a new recreational center. The project was unanimously approved by the Naperville City Council following a rewrite of the city's design guidelines to allow alternatives to the mandate to build with brick, according to Brian Bock, vice president of sales and marketing at Dukane.

High Concrete to Clad 'Green' High-Rise

DENVER, PENNSYLVANIA

High Concrete Group LLC is producing precast concrete architectural panels for the 23-story Three PNC Plaza set to open in late 2008. The 752,000-sq-ft building combines office, retail, hotel, and condominium units. The $179 million project is designed to use a variety of sustainable-design concepts.

The 24,000 sq ft of precast concrete panels, consisting of 155 panels, will be produced at High Concrete's Springboro, Ohio, plant and erected this spring.

The project was designed by **Gensler** in San Francisco, in association with **Astorino** in Pittsburgh, Pennsylvania. It incorporates sustainable features such as daylighting, high-efficiency heating and cooling systems, and a minimum of 50% of construction products made from green and/or recycled materials. The building is expected to be LEED certified.

The company also announced that its Springboro plant will produce 1,200 precast concrete panels covering 156,000 sq ft for the 1.1-million-sq-ft C.S. Mott Children's & Women's Hospital in Ann Arbor, Michigan. The project, with a budget of $523 million, was designed by **HKS** of Dallas, Texas. The project is part of the University of Michigan Health System.

Shockey Plans Design Event

WINCHESTER, VIRGINIA

The Shockey Precast Group will host the third annual Design Professionals Education Event at its plant on September 25, 2008. The event will feature a 2.5-hour plant tour and an updated, AIA-registered presentation on precast concrete parking structural design, total-precast concrete systems, and CarbonCast brand carbon-fiber-reinforced precast, pretopped double tees for parking structures. Registered architects will qualify to receive 5.5 AIA LUs or PDHs.

A catered lunch, videos, and an exhibit area are planned. Architects can also register online at www.shockeyprecast.com. For more information, contact Terry Haney, marketing coordinator, at (540) 723-4190 or thaney@shockeyprecast.com.

– *Brian Griffis*

New Marketing Manager at Gate's Florida Plant

JACKSONVILLE, FLORIDA

Brian Griffis of **Gate Precast Co.** has been promoted to sales and marketing manager for the Florida territory. Griffis will be responsible for architectural precast sales and marketing efforts at the company's plants in Kissimmee and Sarasota. He has been with the company for 10 years.

PCI Undertakes Diaphragm Research

CHICAGO, ILLINOIS

The **Precast/Prestressed Concrete Institute** is in the final year of a five-year, $2 million-plus research program to develop an industry standard for the design and construction of diaphragms used with precast, prestressed concrete components. As part of that research, the researchers are simulating eight levels of seismic forces on a large-scale parking structure using the largest outdoor "shake table" in the world.

The high-profile research program is being carried out by a consortium of three universities, led by the principal investigator, Dr. Robert B. Fleischman, associate professor in the Department of Civil Engineering & Engineering Mechanics at the University of Arizona in Tucson. Researchers at the University of Arizona have been conducting comprehensive analytical research on the program, while full-scale static tests of reinforcing details and precast connections have been conducted at Lehigh University in Bethlehem, Pennsylvania. The shake-table testing will take place at the NEES/Englekirk Structural Engineering Research Center in San Diego.

The test structure was erected on a large shake table, measuring 25 by 40 ft, with a load capacity of 2,240 tons. Instrumentation located throughout the test structure will provide readings that will be evaluated following the testing period in May.

The testing began in April and will continue into May. It is using eight levels of seismic forces to gauge different responses. The test structure, measuring 17 by 58 ft, features one level each of three types of flooring components: untopped double tees, topped double tees, and hollow-core concrete slabs.

The program is funded with grants from the National Science Foundation (NSF), the Network for Earthquake Engineering Simulation (NEES), and The Charles Pankow Foundation (CPF), with substantial industry support from PCI. In addition, several PCI producer members, as well as associate and professional members, have made significant contributions.

The experimental results will be analyzed by the researchers and reviewed by PCI's Research & Development Committee, chaired by Professor Douglas Sutton of the School of Civil Engineering at Purdue University in West Lafayette, Indiana. The researchers have been guided by a committee chaired by Tom D'Arcy, principal and founding president of The Consulting Engineers Group in San Antonio, Texas.

Once the tests are completed and the results are evaluated, the group will work toward providing data and supplementary information that will allow the design approaches to be accepted into code documents. "Codification is necessary for the results to be useful to designers," explains Paul Johal, PCI's director of Research & Development. "We will scrutinize the results and prepare documentation to ensure these concepts are available to aid with future designs."

To view the construction of the test structure and to see the testing in progress, a Web camera has been established at the jobsite at http://137.110.165.19.

– *Jason Woodard*

– *Jeff Winters*

– *Brian Koelsch*

– *Angela Harris*

Metromont Expands Team

GREENVILLE, SOUTH CAROLINA

Metromont Corp. has named Jason Woodard vice president/general manager of its new precast, prestressed manufacturing facility in Tampa, Florida. Woodard will be responsible for sales, plant operations, and project management at the new plant.

The company also has hired Jeff Winters as vice president/general manager of its facility in LaVergne, Tennessee, where he also will be responsible for sales, plant operations, and project management. Brian Koelsch has been hired to fill a sales position at the facility, as well.

Angela Harris has joined the company's Atlanta sales team and will be responsible for sales out of the Hiram, Georgia, plant.